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THE INTERNATIONAL MONETARY SYSTEM AND
THE SPECIAL DRAWING RIGHT

W.M. Corden

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This paper was prepared for an International Monetary Fund conference on "International Money, Credit and the IMF" held in Washington, March 24 to March 25, 1983. A revised version will be published by the IMF in a conference volume later this year.
This paper deals with the question: is there an important role in the international monetary system for an internationally-created reserve asset such as the Special Drawing Right (SDR)?

The greater part of the paper has been devoted to an analysis of the current international monetary "non system", to a detailed discussion of possible problems or limitations of this system and of the extent to which SDRs could deal with these problems. It is then speculated whether a new fixed rate system with centrally controlled reserves might be established. The implications of such a system are considered. Finally, the paper proceeds to a review of the evolution of thinking about the SDR and how this has been related to actual events. At first there was a concern about inadequate reserves, then about excessive reserves. The special role of the dollar then became the subject of special attention followed by the multicurrency system. Perhaps we have now moved into a fifth stage where the concern is not about inadequate reserves for the world as a whole but specifically for developing countries.
# TABLE OF CONTENTS

## I SDRs WITHIN CURRENT SYSTEM

1. The Current System: Chaotic "Non-System" with a Logic. ........................................ 3
2. Instability of Exchange Rates: Multicurrency System and Substitution Account ................. 7
3. Inflation and Recession: Is the System to Blame? ........................................................ 11
4. Is the International Capital Market Adequate? ............................................................. 17
   Unwise Lending and Borrowing ......................................................................................... 18
   Inadequate Insurance ........................................................................................................ 21
   Failure to Redistribute World Income ............................................................................ 22
5. Capital Market Inadequacies and SDR Would SDRs Reduce Unwise Lending? .................... 23
   Quotas Compared with SDRs as Insurance Mechanism: Conditionality Issue ..................... 25
   SDRs as Aid ....................................................................................................................... 31
6. Conclusion: SDRs Within the Present System .................................................................. 32

## II A FIXED EXCHANGE RATE WORLD

## III A REVIEW OF THE PAST

1. The Triffin Problem: Inadequate Reserves? .................................................................... 42
2. The Triffin Problem with Flexible Rates ......................................................................... 45
3. The Breakdown: Excessive Reserves? ............................................................................ 47
4. The Dollar Obsession ...................................................................................................... 49
5. Multicurrency System and Substitution Problem ............................................................ 51
6. Role of Gold .................................................................................................................... 52

## IV CONCLUSION

## BIBLIOGRAPHY

Page No.
This paper deals with the question: is there an important role in the international monetary system for an internationally-created reserve asset such as the Special Drawing Right (SDR)?

Right from the beginning one distinction must be stressed. This is between the concept of the special drawing right as an internationally created reserve asset and its denomination as a currency basket. It was originally denominated in terms of a fixed quantity of gold valued at the official U.S. dollar price of gold. An internationally created asset could be denominated in various ways, for example, in terms of dollars or even commodities other than gold. Although much attention has been given recently to the matter of denomination this is not the central issue. The use of a particular denomination — currently a weighted value average of a basket of five currencies — in the private market does not mean that there has been any international creation of a reserve asset. In general I shall be concerned here with the reserve asset question, not the denomination question. As Machlup (1981) has pointed out, it is unfortunate that the same term is used both for the new kind of asset and for its denomination.

It seems best not to start with the "dreams" but with the current situation. The current situation is that the SDR does not have a very significant role in the international monetary system, making up only a small part of world reserves. This is in spite of the intention

* I am indebted to George von Fürstenberg and Herbert Grubel for valuable comments on an earlier draft.
expressed in the Articles of Agreement of the International Monetary Fund (IMF), since 1978, to make "the special drawing right the principal reserve asset of the international monetary system." At the time of writing it does not appear that governments propose to move in the direction of fulfilling this intention. Thus there is certainly a dramatic gap between realities and proclaimed intentions.

This "realities-intentions gap" could be interpreted in two ways. The first is that the supposed intention is simply a relic of the past – of past circumstances that gave rise to the SDR and of past theories that have gone out of fashion. Perhaps in due course the relic will be buried. The second is that the proclaimed intention lays the groundwork for a possible change in realities; it reflects a desire for change, but the kinds of change that would be appropriate in the new economic environment since the early seventies are not yet seen clearly. It could then be among the purposes of a conference such as this to sort out the issues, with a view to changing realities.

In either event it would be necessary to examine aspects of the current system, its inadequacies, if any, and to ask to what extent the large scale creation of an international reserve asset could overcome these inadequacies either within, broadly, the current system (discussed in Section I) or possibly as part of a complete change in the system (discussed in Section II). In Section III I shall look back at past discussions and past circumstances and relate them to the present. Section IV summarises the practical implications.
SDRs within Current System

1. Current System: Chaotic "Non System" with a Logic

Broadly we have a decentralized international market system - a kind of laissez-faire, where governments and their central banks are major players, acting subject to few if any effective rules. The system has generated liquidity and reserves endogenously. Reserves can be earned in the international market either by the net sale of goods and services, that is, through a current account surplus, or by the sale of bonds. When reserves are built up through a sale of bonds there is an exchange of medium or long-term for short-term assets.

It would be wrong to say that reserves are determined by demand; rather, they are the outcome of a demand-and-supply equilibrium. If increased reserves are to be earned through current account surpluses there must be a corresponding willingness by others to incur current account deficits (i.e. a willingness to sell financial assets for goods and services). Equilibrium is attained essentially through interest rate variations. If there is an excess demand for financial assets relative to goods, so that the algebraic sum of desired current account surpluses is positive, the interest rate will fall, this will increase real investment and perhaps reduce savings, thereby reducing desired surpluses and raising deficits until equilibrium is attained. If increased reserves are to be earned through medium and long-term borrowing, long-term rates will rise and short-term rates will fall until the private capital market chooses to supply what the central banks are demanding. At the same time, the changing structure of
interest rates may lead the central banks to adjust their demands. Furthermore, the existence of the market provides liquidity - the potential availability of funds when needed - and thus reduces the need for owned reserves, whether private or public.

To the surprise of some, this market brought about the recycling of the oil surpluses. In fact, it emerged completely unplanned at the very same time that lengthy official discussions were proceeding about the problems of reserves adequacy and the reconstruction of the whole system. Only a few economists noted the significance of the private capital market in generating reserves and in achieving an equilibrium for different countries and different financial institutions between short-term and long-term assets.

The prevailing exchange rate arrangement can also be described as a laissez-faire system where governments, through their central banks, are important actors, intervening in the market as little or as much as they choose, perhaps fixing their exchange rates in a particular way, whether to another currency, to a trade-weighted basket, or even to the particular basket called the SDR, and do so for any length of period they choose. It is well known that the interventions in the markets of major countries that practice managed floating seem to have the general characteristic of "leaning against the wind"; but the degree of "leaning" is optional and differs at different times. Also to be noted is the establishment of a regional par value system - a kind of "mini-Bretton Woods" - in the form of the European Monetary System.
The world system that has emerged is unplanned and apparently chaotic. It has been described as a "nonsystem". In the view of some, it is desperately in need of "control" (especially control of the Eurocurrency market). But the point I wish to stress is that it nevertheless has some internal logic to it, essentially the logic of the market. There are the same tendencies to equilibrium in the system as in any market, and it may well be efficient for the same reasons that—subject to qualifications—markets are generally or widely regarded as efficient ways of organizing economic relationships. The fact that a market is unplanned and uncontrolled does not mean that it is inadequate. Nor does the fact that public bodies, such as central banks, operate in it make it less of a market.

The standard market paradigm thus seems the best starting point for analysis. Given certain assumptions, markets lead to efficient solutions. Even though efficient, they are not necessarily "optimal" solutions because they may lead to income and wealth distribution outcomes that are, by some criteria, inequitable or undesirable. Thus, ideally, an efficient market may need to be supplemented by redistributive arrangements or, alternatively, intervention in the market may be justified if it has desirable redistributive consequences. In addition, the assumptions required for market efficiency may not be fulfilled. The various qualifications—externalities, public goods, information deficiency, market power by

1. The line of argument to follow, and which runs through this paper, is developed more fully in Corden (1982). Essentially it is a development of the ideas of McKinnon (1969) and Kindleberger (1981), and it is clear that Grubel (1982), in reassessing the impact of Triffin (1960), has been thinking along similar lines. See also Haberler(1977) and Polak (1981). The stress on the endogeneity of reserves can be found in recent Annual Reports of the IMF.
major actors making them price makers rather than price takers, and introduction of oligopolistic effects - are well known.

It is also well known and important to note that the existence of market failure in itself does not justify just any kind of intervention. It has to be intervention directed specifically at dealing with the relevant market failure. Furthermore, the operators of the intervention themselves become actors in the system, and their efficiency and motivations must be considered, so that the possibility of political or bureaucratic failure must be set against market failure.

I do not propose to pursue this approach for studying the international monetary system in a formal way, although it would be well worth doing, but I shall use it as a general framework. If one could assume that the system is efficient there would be no need for an international reserve asset or any other kind of internationally coordinated action. The next step is to consider possible inadequacies of the system, that is, qualifications to the assumption, and in each case to ask whether the inadequacy might justify the establishment, or expansion in the supply, of an international reserve asset such as the SDR. I shall consider three possible inadequacies, namely (1) the instability of exchange rates, (2) a tendency for the system to give rise to inflation or recession, and (3) inadequacies of the international capital market.
2. Instability of Exchange Rates: Multicurrency System and Substitution Account

A principal source of dissatisfaction with the current international monetary system is the instability of exchange rates, especially the large medium-term swings in nominal and real rates. A particular problem has arisen with the swings in the yen/dollar rate; whenever the yen depreciates in real terms pressures for protectionism increase in the United States.

In general the objection to severely fluctuating exchange rates is not so much that they may have adverse effects on trade and capital movements - for which there is, in fact, no clear evidence - but that they have unwelcome and politically awkward effects on the distribution of domestic incomes, as between different sectors. Real appreciations adversely affect profits and possibly employment in countries' export and import-competing industries. Real depreciations tend to lower real wages. If there is real wage resistance, nominal depreciations can give rise to "vicious circles." The rise in domestic prices resulting from depreciation generates nominal wage increases designed to restore real wages. To prevent these wage increases causing unemployment monetary expansion then follows, eliminating the initial benefits of the depreciation and thus leading to further depreciation and further price and wage rises.

The main causes of major exchange rate fluctuations appear to be divergences in monetary and fiscal policies, either in their impact on overall demand or in the policy mix leading to real interest rate divergences. When Japan follows a tight overall aggregate demand policy and the United States an expansionary one, the yen tends to appreciate. On the other hand, when the policy mixes diverge (for any
given overall demand outcome), for example, tight money and easy fiscal policy in the United States and the opposite in Japan, the exchange rate is again influenced; in this example the yen depreciates. These episodes are well known.

Countries follow policies designed primarily to suit domestic considerations, and their governments respond to political pressures and ideologies that differ between countries. Policies are also liable to change drastically as governments change. Exchange rate outcomes are essentially by-products of these domestically motivated policies, and the problem is that governments are unlikely to subordinate their domestic motives to the objective of exchange rate stability. Furthermore, expectational effects may intensify or moderate the exchange rate outcomes. If expectations are correct they anticipate changes that would otherwise take place and they may smooth out fluctuations. It is widely believed, at least by advocates of exchange market intervention, that markets have a tendency to overreact to "news" and, in general, to expect more changes than underlying conditions justify. Nominal exchange rate fluctuations seem to lead to fluctuations in real rates, although the latter may be somewhat less in amplitude. The main sources of difficulty — especially because of their effects on the distribution of income between different domestic sectors — are the changes in real rates.

How does this problem relate to the question posed for this paper? The obvious solution is to deal with the underlying causes — unstable domestic macroeconomic policies and little coordination when changes are made in these policies. It is beyond the scope of this paper to discuss the practical implications of this simplistic
prescription. Here I shall discuss only the implications for the reserve asset question.

First, the problem would disappear - almost by definition - if countries committed themselves (and adhered to their commitments) to a fixed exchange rate system. The implications of such a system for the reserve asset question will be discussed in section II. Of course, while the exchange rate problem would disappear, if the underlying causes are not dealt with, the problem would manifest itself in other ways, essentially as balance of payments problems of individual countries. For the moment I continue to assume that the world stays with its laissez-faire exchange rate system.

The second implication for the reserve asset question has to do with the development of a multicurrency system. The familiar argument is that a multicurrency system increases exchange rate instability. If central banks hold only one asset - ideally the SDR - instability would be reduced. This is the argument for the substitution account (ideally with compulsory substitution), with regard to existing foreign exchange assets, and for imposing rules on the acquisition of new assets, essentially designed to limit the scope for substitution between assets in response to fluctuations in expectations. The implication is that speculation by official holders is destabilizing.

There seem to be two reasons why one should be skeptical about the usefulness of a substitution account as a solution to the exchange stability problem.
First, not only would official holders have to be confined to one asset but something would also have to be done about private holders. Presumably their speculation would also be destabilizing. A severe restriction on market forces would have to be imposed. Japanese residents will always hold yen and American residents dollars; far-reaching exchange controls would be needed to discourage the holding of each other's currencies, or bonds denominated in each other's currencies, when it appeared profitable. And, as one well remembers from the days when the postwar international capital market was in its infancy and exchange controls were very tight in Europe, there is always scope for leads and lags in payments.

Second, there is very little evidence that the gradual move from a dollar system to a multicurrency system has been a significant cause of exchange rate instability. Rather the instability of the dollar, caused by macroeconomic policy changes in the United States, and possibly other countries, has stimulated that move. The concern about the development of the multicurrency system was at its peak around 1978 when the dollar depreciated, the causes being the macroeconomic policy divergences. It is also worth noting that the move has been mainly from dollars to deutsche mark, not to yen; nevertheless, as mentioned earlier, there have been severe fluctuations in the yen/dollar rate—a major cause of international economic tensions.

The implications of a substitution account can be summarised as follows. Essentially the IMF (or the special account) would go into the business of exchanging dollars for a particular currency basket. If it retains the dollars it is clearly incurring a risk. It would be a way of locking the world outside the United States (in this argument
the IMF being part of that world) into dollars. For the IMF, the deal may not be good business. If it were, then presumably, private agents would go into this business of buying dollars and selling SDR baskets. But the central issue, on which negotiations broke down, is who would cover the possible losses and presumably gain the possible profits?. In other words, for whom would the IMF act as agent? Would it be the United States or would it be the world community? If this question were resolved the issue still would remain as to whether the whole exercise is worthwhile from the point of view of exchange rate variability; skepticism seems justified in this respect.

3. Inflation and Recession: Is the System to Blame?

The current international monetary "nonsystem" has developed more or less concurrently with the new era of inflation and recession that began in 1973. Therefore one must hesitate to suggest that such a system can possibly be efficient or optimal when its evolution has coincided with such a marked deterioration in the world economy. Is there an inadequacy in the system that is responsible for our current macroeconomic troubles? Are these troubles caused by exchange rate variability, by excessive or inadequate reserves, or perhaps by the growth of the international capital market? And if so, could they be remedied by more SDRs? In general, it seems to me that the answers must all be negative.

The world inflation originated during the operation of the Bretton Woods system, and was exported from the United States and voluntarily imported by other countries through the mechanism of fixed
rates. Countries could have insulated themselves by appreciating their currencies sufficiently relative to the dollar, but they chose not to do so. The variations in inflation rates that inevitably resulted made exchange rate flexibility inevitable. This is an oversimplified story, but it would be difficult to tell a story where flexible exchange rates are the prime movers. Current unemployment can be attributed to the combination of real wage resistance and low productivity growth (resulting perhaps from low investment) and, in the last few years, relative monetary tightness in the major industrial countries.

Flexible exchange rates allow countries freedom in choosing their money supply policies. Insofar as nominal demand policies can affect real macroeconomic outcomes—as they usually can in the short run—flexible rates thus introduce a significant element of national independence. Of course, links through trade and the capital market impose real constraints on nations: the terms of trade and real interest rates may be given from outside. Alternatively, a unilateral nominal demand expansion, leading inevitably to devaluation, may worsen the terms of trade. But, subject to constraints that depend on the policies of other countries, some national policy independence with regard to inflation and unemployment does remain. For some countries this freedom may make their problems worse, for others better. With regard to making it worse, it can certainly be argued convincingly that the inflationary explosions in 1973 and 1974 in some countries, such as the United Kingdom and Italy, were made possible by the removal of the balance of payments constraint of fixed rates. On the other hand, a degree of insulation became possible for the Federal Republic of Germany.
It could be argued that instabilities imported from abroad through terms of trade variations and through real exchange rate instability - the latter in turn caused or intensified by the international capital market - increase both inflation and unemployment. The mechanism is through asymmetric wage effects: increases in demand for the outputs of one industry increase wages and prices there, while decreases in demand for other industries fail to lower wages but raise unemployment. Yet it seems evident to me that this is not where the principal causes of inflation and unemployment since 1973 are to be found.

Is it possible that, within the current laissez-faire exchange rate system, there are either excessive reserves - hence generating inflation - or too few reserves - hence causing unemployment? As stressed earlier, the reserves supply is essentially endogenous - the outcome of a demand-and-supply equilibrium - so the question is whether the process by which the system generates or destroys reserves is deflationary or inflationary. My answer is that in the flexible rate system the process is not necessarily deflationary or inflationary. I shall consider here the case where there is initially a perceived shortage of reserves, although the analysis could be applied symmetrically to the case where countries feel they have excessive reserves.

First, one can look at a small country that wishes to increase its reserves. It can do so either by borrowing, that is, incurring longer-term liabilities to acquire short-term assets, or by running a current account surplus. Presumably the need for deflation only arises in the second case. Aggregate demand (absorption) has to be
reduced to generate the external surplus. In that sense a
deflationary policy is certainly required. But the interesting
question is what happens to the demand for domestic output. At the
initial exchange rate, demand for home-produced goods will fall, this
being a by-product of the objective of reducing demand for imports.
If nominal wages are rigid or sluggish downwards then unemployment
will result. This is the fixed rate story. But in the current system
the country is free to depreciate its exchange rate, an action that
would switch demand from imports to home-produced goods. The
combination of reduction in absorption and depreciation can maintain
current constant the demand for home-produced goods, yielding the desired
current account surplus without a net reduction in domestic
employment.

Similarly a country that finds its reserves supply excessive, and
therefore wishes to run a current account deficit for some time in
order to transform some of its financial assets into goods, can do so
without domestic inflation. It needs to appreciate its exchange rate
while raising real absorption. Domestic deflation in the first case
and inflation in the second would still result if the country failed
to make use of its exchange rate instrument but that would be its
choice and not a requirement of the system.

What would happen if all countries wished to increase their
reserves? To what extent does the argument just developed for the
small country still apply? Again, one can distinguish between the
generation of reserves through financial asset transformation and the
purchase of reserves through current account surpluses. The capital
market can generate extra reserves by the private sector (principally
the large international banks) exchanging assets with the world public sector (the central banks). This happens when central banks borrow to replenish their reserves. Insofar as this process raises medium and long-term interest rates and hence reduces investment it would be deflationary and would need to be offset within each country by appropriate monetary or fiscal expansion.

But let us now consider the example where all countries wish to run current account surpluses in order to increase reserves. Of course they cannot achieve their objectives. The question is whether the effort of trying to achieve the inconsistent objectives need be deflationary. In a fixed exchange rate regime it would be. But with flexible rates, in a two-country world we can imagine that Country A and Country B each buys the other's currency, aiming to depreciate its own currency. This is a situation of competitive depreciation. Neither will achieve its exchange rate or its current account objective, but each will accumulate the currency of the other, and thus will incidentally have succeeded in increasing its gross reserves.

There is no reason in this example why either country should actually reduce its absorption of goods and services unless it actually does achieve a depreciation of its currency. It seems reasonable to assume that the exchange rate is targeted on the (unattainable) current account target, while for each country expenditure (absorption) policy is targeted on attaining the desired level of demand for domestic goods and services. The same argument applies when there is a world excess of reserves, in which event there might be attempts at competitive appreciation but there need not be
inflation.

The conclusion thus is that in the flexible exchange rate system there is not an inevitable relationship between reserves adequacy and world deflation or inflation. The story is different, of course, in a fixed rate system, and this I shall discuss later.

Here one might note a feature of the current system that may have led to money supply instability in major industrial countries other than the United States. The essential cause is the failure to allow exchange rates to float freely because of governments' desires to avoid severe real exchange rate changes that would have effects on the domestic distribution of income between sectors. Thus leaning-against-the-wind intervention is being followed. When the motive of intervention to moderate appreciation is to protect profits and employment in export and import competing industries, the policy can be called "exchange rate protection."

The implications for the world money supply of such intervention policies have recently been noted by McKinnon (1981). When the dollar is expected to depreciate, for whatever reason, capital seeks to move out of the United States, and part of the effect is absorbed by depreciation of the dollar and part by monetary expansion in countries such as Japan and the Federal Republic of Germany. These countries do not succeed in sterilizing the domestic monetary effects, so their money supplies go up and inflation accelerates. At the same time there is automatic sterilization in the United States. Thus the world money supply rises unduly when the dollar depreciates (but because it does not depreciate enough) and similarly falls unduly when the dollar appreciates.
If one regards this outcome as undesirable and accepts both leaning-against-the-wind policies and nonsterilization (or inadequate sterilization) as inevitable, it is necessary to look at the causes of the expectational shifts that have fueled the actual and incipient capital movements. Are the changes in expectations rational or not? Furthermore, are the resultant capital movements encouraged or made possible by the multicurrency system? In fact, one comes back to the same issues as were discussed earlier. In general it seems to me that instabilities in policies of major countries—caused by understandable and perhaps inevitable political factors—must be blamed for instabilities in expectations about exchange rates. And, with regard to the multicurrency system, the scope for speculation, whether rational or otherwise, would hardly alter if all official reserves were held in one currency, since the opportunities and motivations for private sector speculation would still exist.

4. Is the International Capital Market Adequate?

The international capital market is the generator of official reserves and of liquidity, and the question is whether SDRs should supplement or replace it in some way. Presumably there would be no need for SDRs if the capital market were entirely adequate. I shall explore three directions in which it might be inadequate and then go on to consider whether SDRs could do better.

To begin with it must be noted that the international capital market is certainly perfect in the usually accepted sense of that term, or, at least, it must be one of the more perfect markets
existing anywhere in the world. It absorbs and makes use of a vast amount of information and has given rise to a great information industry of its own. There is free entry. Its pricing is extremely flexible, as is reflected in the numerous and continuously changing margins for different borrowers and the term structure of interest rates. It has been remarkably neutral politically. Although there are some very large borrowers, lenders and, above all, intermediaries, the market is in no sense monopolised. Let us now consider three possible limitations, namely (1) unwise lending and borrowing, (2) inadequate insurance, and (3) failure to redistribute world income.

Unwise Lending and Borrowing

In the discussion of unwise lending and borrowing I shall first look backward and then forward.

With hindsight we can see that some of the market participants have not shown foresight. We, and they, can now see that they may have been foolish or ignorant. Or, perhaps they were only running some calculated risks. With respect to banks, good profits were made for many years by running risks. With respect to sovereign borrowers, political rewards were reaped by spending generously out of borrowed funds, or by postponing needed adjustments. Similarly, some private companies may have run undue risks or made misjudgments. But now there is trouble. Could these problems have been prevented or reduced by official controls of some kind, possibly by supervision from the IMF?
This raises three questions. First, does the private sector tend to take excessive risks — excessive from a social point of view, bearing in mind that lending governments may have to rescue banks and possibly sovereign borrowers when the risks do not pay? It is worth noting that there are other occasions, for example, new industrial developments, when the private sector is often accused of not being willing to take enough risks. Nevertheless, it would surely be widely agreed both that the international banks have relied on the lender-of-last resort role of central banks and that such reliance is likely to be an incentive to undue risktaking. The second question is whether an official controller, whether the IMF or a central bank, would have better foresight or knowledge than the market participants. It is not obvious why this should be so. Presumably any superior information could be readily fed to the market. Staff with proven analytic ability and good judgement can be as easily employed by private banks and consulting agencies as by public bodies. On the other hand, the IMF benefits from economies of scale in this respect. The third question is whether official intervention would have been motivated in a favorable or unfavorable direction by political and strategic considerations. Presumably the introduction of any noneconomic motivations would increase the possibility of losses or of forgone profits overall, other things being equal. Here it has to be noted that governments of major lending countries strongly supported bank lending to some of the countries that subsequently turned out to be big problems.

In spite of this last factor, I suspect that if funds had been channeled through the IMF or through the central banks of major lending countries they would have been more cautiously applied, and,
In total, the flow of funds to developing countries would have been far less, with more going to governments and corporations in developed countries. In spite of current difficulties it is not clear that this would have been a better outcome. From the point of view of world efficiency, quite apart from international income distribution considerations, the public bodies might have erred in the opposite direction from the private banks by being overcautious.

So much for looking backward. Now, what about the future? In view of current problems the question must arise whether the role of the capital market in providing funds to many sovereign borrowers may be coming to an end. Although some lending may have been excessive in the past, we could be moving into a period of unwise or undesirably low international lending, at least to developing countries. Because of a tendency to overreact it may be too low not only from a world efficiency point of view but also from the point of view of the potential private lenders. This implies, of course, that the private market may not be efficient and raises the related issue of whether supplementary public lending would compensate to the right extent or would overreact by providing funds too readily, at least to those sovereign borrowers viewed with favor by the political masters of the public agencies.

Returning to the problem created by the lending of the recent past, the issue arises of arrangements for rescue, whether of sovereign borrowers or of international banks. This is essentially an insurance issue, to which I come next.
Inadequate Insurance

Although there is a private insurance market, one cannot insure against major liquidity crises or bankruptcy in this market. Domestic depositors in banks are usually protected, and the banks themselves have some degree of insurance through the lender-of-last resort commitments (insofar as these exist) of central banks. Because of the "moral hazard" problem, the insurer must exercise some degree of supervision, and this provides the logic for central bank supervision of private banks. If the latter are not willing to be supervised - by escaping the net, say, through an offshore market - they cannot expect to be insured. Those that do not insure often regret it afterward, but they may be taking a calculated risk.

Here, I want to focus specifically on the insurance problems of sovereign borrowers. It is not really possible for a nation to insure in the normal way against unexpected exogenous developments, such as deterioration in the terms of trade, or against the consequences of mistakes in policies. The problem is that the country may not be able to borrow in the international capital market because of unexpected circumstances that preclude such borrowing or because of prohibitive interest rates. A country may then be faced with major problems of reducing real expenditures. It is at this point that the IMF and international reserve assets come in.

The insurance is not just against unexpected developments affecting the particular country concerned but also against an unexpected tightening of conditions in the international capital market for whatever reason, or even a breakdown in the market owing to a loss of confidence, possibly caused by defaults. This is the
eventuality that, at least in its more moderate form, appears to be in prospect now. Governments insure against such situations by accumulating owned reserves. To that extent the international capital market does provide the required service. But, in addition, governments provide mutual insurance for each other at no immediate cost by swap arrangements and by creating international reserve assets.

The IMF quotas can be regarded as part of a sovereign insurance system. Governments provide a line of credit, in effect, to the World Insurance Company (the IMF), and it, in turn, is prepared to come to the rescue of its customers. An insurance company, of course, must exercise some supervision to ensure that the customer tries to avoid getting into trouble, and when he does, he puts his house in order and avoids mistakes in the future. There is a sovereign moral hazard problem that provides the logic for conditionality and for one of the principal activities of the Fund, surveillance.

Failure to Redistribute World Income

The private market discriminates against bad risks, in the worst cases by refusing to lend to them at all and more generally by charging higher interest rates. The bad risks tend to include the poorest nations, yet there is no inevitable relationship between a particular sovereign risk and the per capita gross national product of that country. Although this tendency of the market is not explicit discrimination against poor countries, neither is it discrimination in favor of the poor. It does not help those whose poverty has pushed them out of the world market. For them, there is obviously no element
of aid.

Coming back to first principles, the distinction between efficiency and optimality was stressed earlier. Efficiency considerations ignore income distribution effects. It is legitimate to concentrate on efficiency if independent income distribution policies to implement a "world social welfare function" (something that can only be implicit) are being pursued. In practice, we know they are not, so there is at least a logical basis for taking world income distribution considerations into account when making various international arrangements, such as those under discussion here. This is the argument for a link. On the other hand, some prefer to maintain a clear separation between the efficiency objective and the income distribution objective, and thus prefer international monetary arrangements to be directed at achieving (or moving closer to) world efficiency, while leaving redistribution objectives to other parts of the system, such as bilateral aid and the activities of the World Bank Group.

5. Capital Market Inadequacies and SDR

I turn now to consider the implications of these three possible capital market inadequacies for proposals to expand the role of the SDR.

First, something must be said about the fundamental characteristic of the SDR, as it is now. A country that uses its SDRs is making use of a line of credit at a concessional rate of interest. The SDR interest rate is based on the short-term market rates of the five countries whose currencies make up the basket. For some
borrowers these interest rates are close to the rates at which they can actually borrow so that there is little element of concession and hence little motive for using SDRs. On the other hand, for others these five rates are well below the rates at which they can actually borrow, or at which they can always be certain to be able to borrow.

The certainty that this line of credit is always available is in itself a quality that the general availability of the private capital market does not provide. The certainty depends on the extent to which holders can be sure that the IMF will always designate some country to accept SDRs and that this country will always adhere to the obligations it incurred when it became a participant in the SDR scheme.

It has to be remembered that while the user of the SDR, that is, the borrower, is getting an implicit subsidy, the assigned recipient, the lender, may be paying an implicit tax. The extent to which there is such a tax is indicated by the extent to which countries are reluctant to hold SDRs, so that assignment is necessary. If the SDR interest rate were truly an appropriately weighted market rate for riskless bonds (and if there were no limitations on the use of SDRs by net acquirers), there should be no reluctance to accept SDRs, and hence no implicit tax on lenders, because the IMF, after all, has assumed the risks. The only risk then for holders of SDRs would be that the IMF might not fulfill its obligations.
Would SDRs Reduce Unwise Lending?

If large issues of SDRs had been made in 1974 and every year thereafter, many sovereign borrowers would not have needed to go to the world capital market. The low absorbers of OPEC, Japan, the Federal Republic of Germany, and some others would have accumulated SDRs instead of dollars. Some countries that had both current account deficits and had earlier accumulated dollar reserves could have been obliged to accept SDRs and so would have reduced their dollar holdings, which would then have ended up in the private sector. In the case of some borrowers, the total amounts they would have borrowed might not have changed, but they would have paid a lower interest rate, so that there was essentially just an income transfer. In addition, some developing countries would have become large international borrowers for the first time through using their SDRs. With an increased demand for funds the free market rate of interest would have risen and other borrowers who continued to use the market (in addition to SDRs) would have been crowded out to some extent.

The question is whether possibilities of unwise lending or borrowing would have been less. On the SDRs themselves interest rates would have been less than in the capital market; to that extent, the strain would have been reduced. But the possibility would have remained that a country that was using its SDRs and thus committing itself to regular interest payments would not have been able to do so; the possibility of default would have remained. But this time the intermediary would not have been a private bank but rather the IMF. The IMF would have borne the risks and the IMF members would have covered any losses in proportion to their quotas. This might be
regarded as desirable, since there is a virtue in risk spreading. Furthermore, it could be argued that because of the greater potential power of the IMF, especially in a regime where it disposes of SDRs on a large scale, the risk that countries might default to the IMF is much less than the risk that they might default on debts to private lenders or individual governments. Thus, SDRs would reduce world risks—presumably a world efficiency gain—and would allow the spread between interest rates paid by borrowers and received by lenders to narrow.

On the other hand, the uniform interest rate on SDRs has to be contrasted with the varying margins that the private market charges. This seems to me an important consideration to weigh against SDRs. It is clearly efficient that interest rates should include margins for risk, so that in this important respect the SDR is inefficient. The private market imposes margins, and in the limiting case can actually refuse to lend to a really risky potential borrower. Thus a strong incentive is provided for countries to maintain their creditworthiness by managing their economies sensibly and, above all, by not defaulting. By contrast, irrespective of the recipient's creditworthiness, SDRs are automatically issued to all participants. The probability of a participant defaulting on the interest payments cannot be taken into account when issuing SDRs. If the participant does default, he is no longer entitled to his share of SDRs.

Looking back, then, greater issues of SDRs would have led to a partial replacement of private lending by SDRs, with the consequences just discussed. Looking forward, the same analysis applies. If SDRs were issued on a large scale, to a considerable extent they would
replace private lending, and they would change its pattern, presumably in the direction of those countries - primarily developing countries - that would be able to borrow little or nothing in the private market. In addition there might be some net rise in total international lending, induced by a higher market interest rate than otherwise. As discussed earlier, whether this effect would be desirable depends on the extent to which the private market may be inefficiently overreacting to recent events by underlending to developing countries.

**Quotas Compared with SDRs as Insurance Mechanism: Conditionality Issue**

Issues of SDRs are a form of insurance, as is any arrangement for mutual increases in owned reserves. The logic is the same as that for IMF quotas, already discussed. Swap facilities under the General Arrangements to Borrow fall under the same category. If it is desired to increase the level of sovereign insurance, is this done better by an increase in quotas or an increase in SDRs?

This raises the question of how SDRs compare with quotas. One aspect has received much attention but seems to me relatively minor. This is the matter of denomination of a reserve asset. When the market continually adjusts spot exchange rates of the major currencies to take into account expected exchange rate changes (and insofar as intervention regulates spot rates, when the market adjusts interest rates), it seems to matter relatively little to a borrower in which currency cocktail, consisting of one or more of the major currencies, his loan is denominated. It matters only when the expectations of the particular borrower differ from those of the market. Presumably he is better off choosing his own cocktail rather than being forced to
accept a prepackaged one as is represented by the SDR. Of course, even if there is no difference in expectations, after the event the choice of currencies will turn out to have mattered, since expectations usually turn out to have been wrong.

The key distinction between quotas and SDRs is that, beyond the first credit tranche, the former involve conditionality and the latter do not. This refers to SDRs as at present issued. If they were issued not directly to participants but rather to the IMF itself, which could then use them for lender-of-last-resort lending subject to conditionality, the distinction would disappear. As discussed earlier, insurance always involves the problem of moral hazard, and this requires the insurance company to exercise some supervision. Hence a scheme with conditionality seems more appropriate than one without.

Here it might be noted that reserve positions in the IMF also represent reserve assets that are available unconditionally. I refer here only to reserve positions that represent the net creation of new reserve assets and not to positions that result purely from the deposit with the Fund of other reserve assets. Such reserve positions differ from SDRs and from tranche positions in two crucial aspects: first, they are not "created" in a systematic universal fashion, as they only come into existence as a by-product of the extension of credit by the Fund to its members; and second, they are acquired at a cost in terms of potential resource use, since the reserve position of Country A is built up only when Country B acquires Country A's national currency through Fund drawings with the intention of spending it.
There remains the somewhat complex question of the extent to which the creation of unconditional reserve assets internationally actually reduces the conditionality of international borrowing. It might be argued that too sharp a distinction between conditionality and the lack of it is not really justified. Provided the marginal borrowing of a country is conditional — whether through IMF conditionality or through conditionality, explicit or implicit, imposed by the private market — a country’s total policies will, in effect, be subject to conditions imposed by lenders. These conditions will thus apply also to those policies or activities apparently sustained by the unconditional part of its borrowing.

The position at present is that a country that only borrows up to the point where it uses its SDRs and then proceeds to its first credit tranche is borrowing unconditionally. The availability of such opportunities for unconditional borrowing might be justified from the world point of view on the grounds that the maximum amounts involved are small in relation to the size of the relevant economy. The situation changes once the country borrows, in addition, on the private market. In this event there are always implicit conditions affecting margins above the LIBOR and the availability of credit, and if no explicit conditions are being applied one can assume that the implicit conditions about economic management, political stability, and so on, are fulfilled. Furthermore, if the country is borrowing from the IMF in the higher credit tranches, conditionality also applies. It follows that any country that is either borrowing on the private capital market or borrowing beyond its first tranche from the

2. I am indebted to George von Furstenberg for drawing my attention to this issue and suggesting the general line of approach.
Fund, or both is subject to conditionality.

An increased issue of SDRs is likely to reduce countries' borrowing from the Fund or the private market, or both. But it could be argued that, as long as they continue to borrow to some extent either beyond the first credit tranche or on the private market the degree of conditionality has not really altered. Only if countries are issued sufficient SDRs to allow them to avoid such conditional borrowing (or allow them to move to lower credit tranches) will there have been a reduction in conditionality. In practice it seems inevitable that a universal issue of SDRs of a significant amount beyond present levels would put many countries in this position — reducing conditionality and possibly making all their borrowing unconditional. This would be true, in particular, of all those countries that have low credit ratings on the private market and possibly are making little use of it now.

If one accepts the case for associating conditionality with the international creation of official liquidity to supplement the private market on the grounds of the "insurance argument," it seems to follow that one must have reservations about a large-scale issue of unconditional SDRs. The case is stronger for increasing the sizes of quotas or issuing SDRs direct to the Fund to strengthen its resources for conditional lending.

At this point something must again be said about the relationship of the preceding discussion to the current situation. It has been a theme so far that the private capital market has been available to generate both owned reserves and liquidity, so that the official "insurance" arrangements need only be regarded as supplementary.
including the OPEC low absorbers, the Federal Republic of Germany and Japan. On the other hand it has to be remembered that a rich nation is not excluded from using its SDRs.

The SDR system provides the opportunity to introduce much more explicit discrimination into the system, thus raising the "link" issue. But a possibility of discrimination also exists in determining the sizes of IMF quotas (or the size of drawing rights relative to quotas), so that there is not necessarily a distinction between these two devices in this respect. It is understandable that developing countries prefer to receive unconditional liquidity — even though the interest rate on SDRs is much closer to market rates than it was once — rather than conditional liquidity. If aid is to be given in this form rather than through the usual channels my own preference would be for conditionality, but this raises issues that go well beyond the scope of this paper.

6. Conclusion: SDRs Within the Present System

Suppose we stay within the present laissez-faire system. There will be a need for some officially owned reserves and certainly for liquidity. In this system the international capital market has, until now, generated both as required. The problem of reserves adequacy or excess has not arisen. Because exchange rates can move, a country can choose its own monetary policies, and its reserves situation — which in any case is endogenous — need not determine domestic inflation or recession. There are of course many external constraints on countries — real interest rates and terms of trade, principally — so that exchange rate flexibility does not give them independence in a real
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sense. Within the constraints, it only frees them to influence those real effects (e.g. short term unemployment) that depend on domestic money supply policies.

There is some argument in favor of a substitution account designed to reduce exchange rate fluctuations, but I find this argument tenuous. The only connection between SDRs and the domestic macroeconomic disequilibria that have dominated countries since 1973 is through exchange rate variability; only if a substitution of SDRs for a multicurrency system actually succeeded in reducing exchange rate variability - itself a doubtful assumption - might SDRs also have some favourable effect - although hardly an overwhelming one - on domestic macroeconomic situations.

It is doubtful that there is a really significant role for the SDR within the framework of the current system. This does not, of course, exclude a modest role. Possibly some weight must be given to the risk-spreading role of a large financial intermediary owned by all the world's governments, with the ability to reduce and not just shift world risks, and so narrow interest rate margins. Unless the world capital market breaks down (i.e. international, as distinct from national, lending and borrowing ceases or becomes very difficult), there is no need to use SDR allocations to influence aggregate world reserves levels. But it may be justified to create some SDRs to compensate for a possible tendency of the international capital market to overreact to recent events and underlend to developing countries. If this is the motive, it would be logical to limit the SDR issue purely to developing countries.
The issue of SDRs or any kind of international reserve asset can be regarded as a desirable mutual insurance system, but here an association with conditionality seems to be appropriate, so that an increase in quotas, or of Fund resources possibly denominated in SDRs and available for conditional lending, is preferable to an increase in unconditional SDRs. This would also be a way of preparing for the possibility of reduced lending to sovereign borrowers by the international capital market. Finally, the issue of SDRs can have some effect on international income distribution, if small, and the question is whether this is better done through SDRs allocations than through two alternatives, namely, differential quota arrangements associated with conditionality or explicit aid, bilateral or multilateral.
II

A Fixed Exchange Rate World

It seems unlikely that the major industrial nations will return to a system of fixed exchange rates, with or without occasional exchange rate adjustments. Having tasted monetary policy freedom it is improbable that they would agree to give it up. This is so even though much lip service is paid to the virtues of fixed rates, and clearly no one likes fluctuating exchange rates. What national decision-makers like is the monetary policy freedom that inevitably leads to fluctuating rates. Similarly, it seems unlikely that they will accept constraints on their use of the international capital market, including constraints on the choice of reserve assets. Nevertheless, one can, perhaps, envisage two kinds of developments.

The first is that the world economy gradually calms down and stabilizes, essentially because of greater stability in macroeconomic policies and more successful ad hoc policy coordination between different countries to avoid the large medium-term exchange rate variations that the world has seen since 1973. But this would be the outcome not of formal international constraints or rules but of improved domestic policies. An agreement to fix nominal exchange rate relationships for as long as possible, without firm commitment — rather like an extended European Monetary System — might then be the end result of such an essentially evolutionary process. The question is what implications this would have for the SDR?

It would mean that the choice of one currency basket rather than another would matter little to central banks. When there is reasonable certainty about future exchange rate relationships —
special case of which is certainty that rates stay fixed to each other - there is less need to choose portfolios carefully, provided interest rates are flexible and capital markets (including forward markets) free. This means that countries would be more willing to subscribe voluntarily to a substitution account if there were some international pressure to do so. On the other hand, it also means that they might just as well hold dollars, or whatever is the favored reserve currency in that far-ahead halcyon era. In other words, the SDR might become more acceptable because it would matter less. That these developments might lead to increased use of an IMF-issued SDR, or of private baskets denominated in SDRs, would be because world stability had been restored and not because such stability resulted from or depended on the SDR. We have no argument in favor of the SDR here; only an expectation of its innocuity.

The second possibility - which seems rather less probable - is that exchange rate conditions get more and more unstable, elements of the international financial system "collapse," and inflation and unemployment - either or both - get worse. In other words, there is a crisis, whether slow or sudden. This may then lead to so much dissatisfaction - with blame being attached to the international monetary system - that policymakers will be psychologically ready to try a drastic change. One can imagine a great international conference designed to sort out all these problems. Possibly there will have been major changes of governments, the new governments all promising to come up with solutions. One can then conceive of a decision to establish a fixed exchange rate system with the centralised determination of reserves, the IMF turning into some kind of international central bank. The IMF might be instructed, or
constitutionally committed, to follow a conservative monetary policy. The Keynes Plan or the various plans inspired by Triffin may then come into their own.

In current conditions one finds this hard to imagine. After all, if the major economies become more and more unstable, and especially if inflation and unemployment worsen, this is likely to be in the main because governments find it difficult to constrain their own citizens. They find it difficult to impose constraints on sectional interests and to make compatible their excessive competing demands. Would it then be possible for the international community - in effect, a collective of major governments - to impose constraints on its constituent parts? But it is in such a situation that the SDR might come into its own, not because of its particular denomination, but as the sole official international reserve asset, the regulation of which would ensure that world reserves are neither inadequate nor excessive. It is, of course, with fixed exchange rates that reserve levels determine, or at least influence, world inflation.

This is the Keynes-Triffin vision. As it has been spelled out so often I hardly need go into it in detail here. Countries would still have some flexibility by being able to borrow and lend in the world capital market. Presumably the official sector would be prohibited from operating in the market directly, but budget deficits could be financed by sales of bonds at home; and through the linking of capital markets this would be financed on the world market. There would have to be compulsory substitution of existing reserve assets and a prohibition for central banks to deal in gold. Although the dollar might still be the intervention currency, there would have to
be a firm limit on the amount of dollars that could be held by central banks. Finally, and perhaps most importantly, the United States would have to be treated like any other country. It would have to settle its deficits in SDRs. To use the once-popular jargon, there would have to be "symmetry" through "asset settlement."

It is possible to imagine a fixed rate system in which the SDR is not the sole or a major reserve asset. The world could go back and be as it once was—a world using more or less a fixed rate system on a dollar standard. We know that such a system can work. On the other hand it would give the United States the privilege of determining (or greatly influencing) the world inflation rate. Therefore it is hardly conceivable that the imaginary international conference would agree to so asymmetrical an arrangement, although the outcome might be just as good as, or even better than, when the crucial money supply decisions are made through some international mechanism. It follows that a decision to move to a fixed rate system would inevitably involve a major role for an international reserve asset.

The outside possibility of such a system being established suggests that there is a case for keeping SDRs going currently (quite apart from their use within the present system). They may not have a very significant current role, and possibly little future role, but it seems useful to have a device in operation that can be utilized and expanded should a real need for SDRs arise, or be believed to arise.

Finally, one cannot leave this discussion of a world-wide fixed exchange rate system and a world central bank without noting the underlying issue. This concerns the desirable degree of centralization of monetary decision making. At the one extreme is the
present decentralized system, with the market combined with ad hoc arrangements coordinating the consequences of national governmental and private decisions. At the other extreme is internationally centralized decision making. The issue is not whether governments should intervene— they inevitably do so through their monetary and fiscal policies— but whether there should be a substantial element of "world government", with international voting or political bargaining within a centralized framework replacing the market and ad hoc bargaining.

This issue does not arise when various modest proposals for the SDR within the present system are discussed, for example, whether SDRs should be increased to a small extent, supplementing existing reserve assets, or whether there should be a voluntary substitution account. In that event the IMF becomes just another actor in the market. It arises only in connection with the ambitious Keynes-Triffin world central bank proposals that are only meaningful if exchange rates are fixed.

Let us put aside for the moment the question of which system of organization would be preferable from a world point of view. The prior question is whether there is the slightest chance that decentralized market forces can be prevented from operating. We know that even in socialist countries it is difficult— in spite of all the authority of the state— for market forces to be held down. It seems obvious that this must be so in the international community, where there is no effective state authority. The proposal really is to make the world— or perhaps the major industrial countries combined with any other countries that choose to join— an area of monetary
integration.

There are cases where sovereign nations have effectively been part of monetary unions; but in those cases the leadership, that is, the monetary decisions, has come from a major nation, and others have voluntarily attached themselves, being also free to detach themselves. Usually the minor partner has been an ex-colony or economic dependency of some kind. It is a different matter for genuinely sovereign nations, several of large economic size, to engage in monetary integration without prior or simultaneous political integration. These difficulties have been discussed in connection with proposals for European monetary integration. It has not been possible to bring about monetary integration in the European Economic Community; it is unlikely to be possible for a much larger grouping.

Logically one must distinguish the possible or probable from the desirable. Perhaps attainment of the Keynes-Triffin vision may not be very probable, but would it be desirable? The present system certainly leads to considerable disharmony and friction. Policies of particular governments with respect to their monetary, exchange rate, and fiscal policies may have adverse effects on other countries or, at least, on sectors of other countries; an example is the recent tight money policy of the United States. The policies may also be unwise from the point of view of the interests of their own citizens. But would a world central bank do better? Would it produce more steady monetary growth? Presumably it would have to estimate changes in the world demand for international money (SDRs) assuming zero or steady inflation, but this must present some difficulty when national moneys are still used domestically and, perhaps, when the private sector is
still using national moneys in international trade and the capital market.

Governments are frequently faced with dilemmas. They have to balance increased unemployment in the short run against increased inflation later. Political judgments are required in striking the balance, bearing in mind the need to maintain public support for policies, to avoid social tensions, and to maximize the present value of the expected real income effects, perhaps weighted by income distribution considerations. It seems to me that decisions like that are best made within the nation state. Of course, the theory of optimum currency areas teaches us that a state can be too small, or at least nonoptimal, for an independent monetary policy. At the moment one can conceive of Western Europe making up an optimal currency area, but it seems to me highly unlikely that this could be said about a larger grouping that would include, in addition, North America and Japan, let alone the whole nonsocialist world.

III

A Review of the Past

The SDR does seem to be a relic of the visions of a recent past. If it did not exist already possibly we might now create it, but certainly with far less ambitious intentions than have prevailed at various times. In any event, given that it exists there is good reason for keeping it, at the minimum, in hibernation. Let me now review this past a little more. Are there any arguments for the SDR used in the past that might be relevant now? What has changed? What
were the crucial assumptions?³

1. The Triffin Problem: Inadequate Reserves?

The Triffin (1960) argument, which was so widely accepted in the sixties and early seventies, rested completely on the assumption of fixed exchange rates, not just relative to the dollar but also relative to gold. It was argued, or usually implied, that dollars were being held not as a store of value that could buy U.S. goods and services but for their convertibility into gold. With the gold stock rising very slowly, the growth of world reserves depended on the U.S. deficit. This deficit, if it continued, would steadily lower the ratio of U.S. gold holdings to U.S. international liabilities.

Eventually confidence in the convertibility of dollars into gold would be lost. Then the dreaded moment might arrive when the system would "break down," that is, the dollar would have to be devalued relative to gold and possibly relative to other currencies. It also seemed to be implied at first that the U.S. deficit was a current account deficit. Later, account was taken of long-term capital outflow, to yield a "basic deficit". The implication was usually that this deficit was, in some sense, exogenous and could not go on, even if the confidence problem did not come to a head.

³ In preparing this section I have benefited particularly from reading Whitman (1974), Solomon (1977), Williamson (1977), and Willett (1980). It has also been instructive to reread various classic writings, notably Triffin (1960) and Machlup (1968).
Thus the dollar deficit would have to come to an end and reserves would cease to grow, apart from small increments resulting from new gold production. It would therefore become necessary to supplement world reserves with a new internationally created asset, the supply of which would grow as required with world trade. This was the basic logic of the SDR. It would not be necessary to stop countries acquiring dollars or to encourage them to substitute dollars for SDRs - that idea came later - because either the supply of new dollars would come to an end in any event (because the U.S. deficit "could not go on") or countries would not want to hold dollars - or extra dollars - any more (because of the confidence problem). The implication was that the dollar exchange standard would atrophy. Gradually the SDR would replace gold and the dollar as the principal reserve assets held outside the United States.

Later, there were some in the United States who saw the SDR as a way of saving the dollar from the confidence problem. SDRs issued to the United States would provide as good a backing for the dollar as gold. The implication was that the gold exchange standard could be turned, at least partially, into an SDR exchange standard.

Even while continuing to accept the fixed exchange rate and fixed price of gold assumptions, it seems to me that there were two flaws in this approach.

First, the potential convertibility of dollars into gold was, arguably, not the central feature of the system at all. Formally it was - this being a relic of another past - but in practice dollars were being held for their own sake, as a source of liquidity that could potentially be turned into goods and services and that earned a
reasonable positive real rate of interest. This became clear even before the formal ending of convertibility when the dollar was already de facto inconvertible (or, at least, its convertibility was already much in doubt); yet countries were accumulating dollars on a vast scale. To some extent this accumulation was by accident, a by-product of a reluctance by various countries to appreciate their exchange rates because of an "exchange rate protection" motive to help their export industries. It must also be admitted that the U.S. Government put pressure on other governments not to convert dollars into gold. But if other countries did want to move out of dollars into gold or other currencies, while the U.S. Treasury (and U.S. private companies) wished to continue short-term borrowing from foreigners, directly or indirectly, the U.S. authorities could have increased the inducement by raising short-term interest rates. But the interest rate was not a variable in the popular "Triffin-type" models.

The second flaw was that the approach ignored the role of the private capital market in generating reserves. This was noted by Depres, Kindleberger, and Salant (1966). The point was developed further by Kindleberger (see various papers reprinted in Kindleberger (1981)) and McKinnon (1969). Reserves were generated not just through current accounts but by countries borrowing long from the United States and lending short. In fact, strictly, they did not borrow and lend from and to "the United States" but to a considerable extent from and to banks that were mainly but not wholly American and operated in dollars. The vital role of the world capital market is clearly seen now. At the time, the market was only emerging and understanding of its significance was gradual. It has to be stressed that the market can generate reserves—and, by providing ready liquidity, also reduce
the need for owned reserves - even in a fixed exchange rate system.

The Triffin model really reflected "current account thinking." This was understandable because the world capital market or the access of the world to the U.S. capital market, had only got under way in the sixties, mainly owing to the gradual reduction of exchange controls and the growth of multinationals. Formal models still focused on the current account, treating long term capital movements as exogenous and short-term capital movements (operating partly through leads and lags) as destabilizing, irrational nuisances.

2. The Triffin Problem with Flexible Rates

What difference does the removal of the fixed exchange rate assumption make to the whole argument? At the time, exchange rate flexibility - other than in the form of agreed and infrequent changes in par values - was ruled out because of memories of the competitive devaluations of the thirties. No doubt these were more a consequence than a cause of the Great Depression and the prolongation of unemployment, but just as exchange rate flexibility has to take more blame in popular thinking than it deserves in the seventies and now, so is it true of the thirties. The "breakdown of the system," rarely specified in detail, was visualized as a return to the exchange rate "disorder" of the thirties.

It was sometimes suggested that if exchange rates were flexible there would be no need for official reserves. This is only correct if one is referring to a pure floating system. The move to flexible rates has not made the earlier discussion of reserves need and adequacy irrelevant, as we have not moved to a pure floating system.
Our *laissez-faire* managed floating exchange rate system still generates a need for official reserves, as well as for liquidity available to central banks in the form of ready access to borrowing from the world capital market. Thus in this respect the earlier discussions are not outdated. Furthermore, if there were a pure floating system (with no official intervention at all) there would still be a need for nations to run current account imbalances and to import or export short-term capital in order to smooth out real spending in response to various shocks. This would be done wholly by the private sector, or elements of the public sector borrowing and lending abroad and thus bypassing the central bank. There would be a greater need for liquidity, and possibly also for owned reserves, by the private sector.

In another respect the earlier discussions do seem outdated. With flexible rates, a reserves inadequacy - if there is one because the capital market does not function fully - need no longer lead to world deflation. As explained earlier, the inevitable link between reserves situations and the pressure of demand for domestic resources is broken. Countries may still choose to intervene in foreign exchange markets and fail to sterilize the domestic monetary effects, but international commitments do not compel them to do so.

Here it must be noted that the discussions about a new monetary system usually assumed firmly fixed rates, although allowing for rare and reluctant discrete exchange rate adjustments. In practice under the Bretton Wood system it was open to countries to alter par values, an opportunity that France made use of several times and Britain twice. Thus reserves inadequacy for a few countries could be dealt
with by depreciation associated with appropriate domestic disabortion. But a worldwide inadequacy would imply widespread devaluations, that is, competitive devaluations. In fact, for the non-U.S. world it could be resolved by an appreciation of the U.S. dollar relative to all other currencies, something that in practice could only be brought about piecemeal. This would mean also, incidentally, an appreciation of the price of gold in terms of all non-U.S. currencies.

3. The Breakdown: Excessive Reserves?

The system finally broke down in February 1973. The non-U.S. world had accumulated dollars on a vast scale over a few years, the result of U.S. monetary expansion combined with the reluctance of other countries to appreciate relative to the dollar. This reluctance reflected partly a natural lag in understanding the significance of the new situation and partly the exchange rate protection motive. It is not unreasonable to say — contrary to General de Gaulle — that the dollar accumulations of countries outside the United States were essentially voluntary. Nonetheless, in due course there had to be appreciations by countries like the Federal Republic of Germany to insulate themselves, at least partially, from the inflation that had originated in the United States. But many countries failed to do so, or to do so sufficiently, so that the inflation was indeed exported all round the world, subsequently feeding on itself within each country through the inflationary expectations that were generated and largely accommodated through monetary expansion. Furthermore, the inflationary response to reserve accumulations reflected in some cases deliberate expansionary policies designed to stimulate growth —
policies that were no longer inhibited by balance of payments constraints. At the same time, in 1971 the United States had a strong exchange rate protection motive to devalue the dollar relative to other major currencies, especially the yen.

It should be added here that gold convertibility of the dollar ceased in 1971. Thus the formal gold exchange standard broke down at that point. But this was not, in my view, the crucial development. The key events were, rather, the devaluation of the dollar relative to other currencies and the general move toward flexibility.

The new situation of dollar accumulation and flexible rates created a complete transmutation of attitudes about the SDR. It did not seem sensible to add to world reserves, so that the new instrument, born in 1967, was not allowed to grow in its crucial infancy stage. The need was now seen to limit reserves. But this is a much more difficult task than creating a new reserve asset and thus (possibly) increasing total reserves. Instead of allowing the use of the dollar to atrophy, or at least allowing it to become progressively less important over time, it appeared to become necessary to impose restrictions to limit its use. This led to proposals that appear, in retrospect, somewhat unrealistic. It is much easier to add a new asset to the world's portfolio than to force sovereign governments to give up the use of an existing asset.

The more important implication of the new flexible exchange rate regime was, as discussed earlier, that it broke the inevitable nexus between reserves levels and the domestic pressure of demand. It could not be said that countries had to inflate because they had lots of reserves. In fact it was more the other way around: the countries
with low inflation tended to accumulate the reserves. But this nexus was not broken in the international monetary reform discussions that were in progress at the very time the new laissez-faire era was beginning, because the view prevailed that it was desirable — and likely — that the world would return to a more regulated, possibly a new par value, system.

4. The Dollar Obsession

At about the same time a concern — even an obsession — developed not about the total of reserves but about the “monopoly of the dollar”, the asymmetry of the system. The objection was both that the United States obtained seigniorage and that, apparently, it had a freedom of monetary policy that other countries did not have. Motivating the various schemes for replacing dollars with SDRs, or alternatively raising the price of gold and forcing the United States into “asset settlement” (i.e. automatically converting dollars held by non-U.S. central banks into gold or SDRs), were the great dollar accumulation of 1970-72 and the anti-Americanism pervading Europe in the late sixties. There are three aspects to this question.

First, there was the view that the United States was able to export inflation and, implicitly, other countries were forced to import it. As I have stressed, this was a result of the fixed exchange rate system, or of the reluctance of other countries to alter par values. With flexible rates there is no need to import inflation, and yet the dollar can continue to be the main reserve asset.
Second, there was the argument that the use of the dollar as a reserve asset generated seigniorage for the United States. It would clearly be better if this went either to the world community in general or to developing countries. The implication was that either zero interest was paid on dollar balances or that the interest rate was below market rates. It came to be recognized that banks were competitive and operations in the Eurodollar market were not limited to U.S. banks. Furthermore, interest was paid on U.S. Treasury bills. Thus seigniorage would be low or competed away completely. Nevertheless, there would be some modest seigniorage going to the United States because of the increased need for U.S. base money, and one might guess that the U.S. financial community would benefit somewhat from the world use of the dollar.

This relates to the third aspect. The special role of the dollar is not arbitrary. It is not arbitrary that once sterling was the principal world currency and reserve asset, then there was a gradual shift to the dollar - so that there was a period when there was a multicurrency system - and now there is some modest shift to the deutsche mark and, to a lesser extent, to yen and Swiss francs. A greater shift to yen would certainly seem logical. Central banks are free to compete for the privilege of producing the base for a reserve asset. If a country is a major trader, if it has a well-functioning capital market which depends, above all, on the absence of inhibiting regulations combined possibly with some appropriate supervision and if it has political stability and the assurance of this lasting for a long time, it can get its currency used as a reserve asset. There are economies of scale in this, as in other businesses, so it is not surprising that the tendency is towards oligopoly and, at times, even
monopoly. But there is free entry.

It is well known that countries like the Federal Republic of Germany, Japan, and Switzerland have not desired this supposed privilege. It is curious that the United States has been keen for the dollar to remain a (or the) reserve asset — even though this may lead to more fluctuations in the dollar than otherwise — while other governments have not wanted their currencies to move into this field — even though they are forgoing some modest amounts of seigniorage and profits. A natural conservatism all around may be reflected in these national preferences.

5. Multicurrency System and Substitution Problem

The concern about the special privilege of the dollar seems now to have died down. To a considerable extent it was, as I have said, a result of the great dollar accumulation of 1970-72. Subsequently there has been some switch from dollars to deutsche mark, yen, and other currencies. Presumably this should have been welcomed by those who regretted the special privileges of the dollar. But it was not. A new concern came to the fore.

When the dollar devalued sharply relative to other major currencies in 1977 and 1978, the expectation of further devaluation intensified switching from dollars to other currencies. It is also possible that switching itself contributed to the devaluation, although the prime causes of the dollar devaluation clearly lay in domestic macroeconomic policies. These events gave rise to fears of an avalanche of dollars falling on the foreign exchange market, or at least great instability on this account. Thus there was once more a
transmutation of motive for SDRs. In any case, the recent dollar appreciation seems to have laid to rest for the moment the fears of an unstable multicurrency system. Now—until the dollar devalues again—everyone seems to be happy holding dollars, even though the dollar no longer has the overwhelmingly predominant role in official foreign exchange reserves that it had less than ten years ago.

6. Role of Gold

I have said little about gold so far. Central to the Triffin approach was the objection to a rise in the price of gold. Although the U.S. authorities were not always, if ever, sympathetic to the idea of a new reserve asset, they were in agreement that the price of gold should not be raised. The reasons—adverse wealth and income distribution effects combined with the waste of real resources resulting from stimulating gold production—seem very plausible. So the SDR was originally conceived of as "paper gold." A period ensued when gold appeared to be phased out of the system with the central banks of the Group of Ten agreeing neither to buy nor to sell it. Combined with the accumulation of dollars, this meant that the principal competition for the SDR seemed to come from foreign exchange, not gold; hence the SDR interest rate was raised and now is equivalent to a basket of five risk-free, interest-bearing currencies.

With regard to gold, as Grubel (1982) has noted, market forces have gradually reasserted themselves. The price of gold rose in the free market, and the attempt to isolate the official sector from this market has only partially succeeded. It is now usual to value officially held gold at the market rather than the official price, and
official gold has formally entered the system through the arrangements of the European Monetary System. The real test will come when a major gold holder, such as France, is badly in need of using its reserves. Will it then treat gold just like foreign exchange reserves, spending it as needed?

Gold seems, thus, to be creeping back into the system. Even though gold holders receive no interest, the expected rate of return is positive because of expected capital appreciation that, in turn, varies sharply with the degree of uncertainty in the world. The variability of this expected rate of return reduces, but does not kill, the quality of gold as a reserve asset. The positive relationship between uncertainty in the world and the expected rate of return on gold rests on historical and socio-psychological factors. Hence it is hard to believe that the SDR can ever substitute for gold; insofar as it could substitute for anything it can do so only for foreign exchange.

IV

Conclusion

At the beginning of this paper I noted the "realities-intentions gap" about the SDR, and speculated whether the SDR was just a relic or whether the proclaimed intention to make the SDR "the principal reserve asset of the international monetary system" laid the groundwork for possible changes.
The greater part of the paper has been devoted to an analysis of the current international monetary "non system" and to a detailed discussion of possible problems or limitations of this system and of the extent to which SDRs could deal with these problems. I then speculated whether a new fixed rate system with centrally controlled reserves might be established and considered the implications of such a system. Finally, I proceeded to a review of the evolution of thinking about the SDR and how this has been related to actual events. The reasons for the creation of the SDR have changed over time. At first there was a concern about inadequate reserves, then about excessive reserves, next about the special role of the dollar, and finally about the multicurrency system. Perhaps we have now moved into a fifth stage where the concern is not about inadequate reserves for the world as a whole but specifically for developing countries.

Let me conclude by summarizing the practical implications that seem to come out of this discussion.

First, there is always the outside possibility that at some stage the international community will decide to construct a new fixed exchange rate system with centralized determination of reserves. This might be the response to a major international crisis, though it is an outcome that seems unlikely. In that case an international reserve asset such as the SDR would come into its own. It would then be useful if the SDR, and the various arrangements associated with it, already existed. Thus, even though the SDR might have little significant role or prospects within the present system, it might be a good idea to keep it going at a modest level should the situation change.
Second, it seems improbable that a voluntary substitution account would make much difference to the instability of exchange rates. The basic causes for instability can be found in the macroeconomic policies of the major countries. There are difficulties about a substitution account but from the point of view of the system, voluntary substitution might conceivably do a little good by modifying short-term shifts between currencies; it is unlikely to do any harm—other than to those who ultimately bear any losses the account might incur.

Third, the SDR can be an instrument of international income redistribution, especially for those countries that at present are not able to use the international capital market at all, or only to a very small extent. The number of these countries will have increased lately. A case can, of course, be made for such redistribution. But if really large sums are to be involved the donors, in fact the potential acquirers of SDRs, would surely look for some degree of conditionality.

Fourth, it is possible that the effect of recent difficulties in the international capital market will be to lead to an undue reluctance by the private capital market to lend to developing countries. By “undue” I mean that lending would be too low from a world efficiency point of view, bearing in mind prospective risks. This can provide a qualified argument for an increase in SDRs within the present system. The issue might be limited to developing countries, possibly it ought to be associated with conditionality (through the issue being made to the IMF, which can then supplement or replace the lending of private banks as appropriate); and it would
certainly not represent a move to "making the special drawing right the principal reserve asset of the international monetary system."

Fifth, and most important, the principal justification for the international creation of reserve assets is as a mutual insurance arrangement among nations. But this raises the issue of moral hazard, which calls for supervision by the World Insurance Company. It is here that one can see the key role of the IMF. The annual consultations can be regarded as a form of supervision before claims on the company are made, while conditionality is supervision associated with the controlled payment of claims. Perhaps the analogy can be pushed too far, but it does draw attention to the crucial role of conditionality.

SDRs are at present unconditional drawing rights, and I have suggested that - insofar as a significant expansion of international liquidity is justified on insurance grounds (and I believe that it is) - this would then be better done through increases in the sizes of quotas or the expansion of the direct resources of the IMF. This could, alternatively, be achieved by issuing SDRs initially to the IMF rather than directly to members. Hence, to that extent, there appears to be a clear potential role for an expansion of SDRs within the present system. But it has to be added that much the same objective could be achieved through the normal expansion of quotas or by the IMF borrowing on the capital market, in the latter case with members of the IMF collectively guaranteeing the loans.


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