Roosa's Fund Unit Scheme
and the International Monetary Fund

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I. The Limited Scope of the Roosa Plan

Economists occasionally find it convenient to indulge in the oversimplification of classifying economic events according to the major international economic challenges thrown up in each decade, with just a trace of that numerological mystique which older historians have long applied to 'centuries'. With only minor misrepresentation, for example, we can say that in the twenties the problem was reparations and war debts; in the thirties, mass unemployment and exchange rate chaos; in the forties, the bogey of a postwar depression; in the fifties, development and growth; and in the sixties, international monetary reform, as the heads-on favorite.

Looking at events this way, however, is a chastening experience for both the theorist and practitioner, for it is surely clear that the challenges were either false ones, or unsuccessfully resolved during the period when the urgency of solution was greatest. The reparations problem was not resolved theoretically in the twenties and the fact of war debts exerted a shattering influence on confidence and international economic policy until well after Hitler had come to power; the same is true for the thirties' problem of unemployment in that diminishing part of the world that escaped fascism and communism; the expected postwar depression, too, did not come about, casting strong doubt on the theory of unemployment that predicted it, as well as skepticism about that completely opposite current predilection to believe that the world economy is now immune to it; while the concern over development and growth theory of the fifties has now been extrapolated into a far more long-run problem than was initially anticipated.

In the light of this gloomy history no one could be blamed for pessimism over success in resolving the international liquidity question or in averting a major crisis of confidence. It is true that economists, stirred up by Triffin's forceful presentation of the international liquidity argument in 1959, have with rare

unanimity warned of the threats posed to the unprecedented postwar prosperity by the declining gold base of trade and international credit reserves. But for a time it looked as if our equally customary disagreement over therapy would prejudice any influence on the outcome.

Yet, to the satisfaction of many, and the bewilderment of some economists, inured to the splendid isolation of their Cassandra roles, what they say has been taken seriously after all by ‘men of policy’. Although officials do not subscribe to drastic solutions in the form offered up by academicians (some being posed in the spirit of the sacrificial lamb) they have themselves entered the game of monetary draftsmanship: The game has reached the level of official policy and we now have a separate plan from almost every important central bank. What better form of flattery than imitation?

This proliferation of official plans should not, of course, arouse undue enthusiasm, for none of them disturb the golden calf or tackle the fundamentals of the international monetary problem. They all operate on assumptions that (a) the U.S. price of gold will stay constant, and (b) exchange rates will remain fixed. This inevitably leads reform down the road to liquidity rather than toward more rapid balance of payments adjustment. In short, the roads point in the direction of Yale (Robert Triffin) rather than Chicago (Milton Friedman) or Paris (Jacques Rueff). This seems to be the self-imposed straight-jacket on all the official plans, whether on the strategic grounds that the alternatives are bad ones, or because of the tactical consideration that any official talk about modifying the price of gold or exchange rates would unduly excite the exchange markets. It is a standard rule, in any case, that official consideration of these more fundamental matters—if indeed there is any—must take place behind locked doors.

Roosa’s book contains a plan that is ‘official’ in the sense that it is at one remove from policy, and his analysis shows that straight-jackets may have a place after all. At the Bellagio-Princeton meetings of the Machlup group, academic economists had diagnosed three problem areas, confidence (belief in the gold asset value of key reserve currencies), liquidity (supply of additional international money to keep pace with the growth of trade and lending) and adjustment (correction of balance of payments deficits and surpluses), and devoted considerable attention to each. This was a justifiable dispersion of intellectual talent in a group whose major purpose was to sort out bases of disagreement, but it had the defect of exaggerating that disagreement (to the extent that our report was noticed at all) in the public mind. The existence of the problem of confidence and the need to do something about it commanded universal assent, while the major conflicts arose over (a) which mechanism of adjustment is most efficient or most acceptable, (b) whether a new liquidity machine would be needed if the adjustment mechanism could be made to
operate fast enough, and (c) whether a consensus could be achieved on the type of liquidity machine. In tackling the toughest conflicts the group concealed, in effect, a wide range of issues on which there was substantial agreement. Yet the conflicts were precisely those on which international disagreement by policy men would also be greatest.

It is important to recognize this in appraising Roosa’s book. Roosa has very little to say about the toughest problems, except to note that adjustment is a national prerogative and duty, outside the scope of monetary reform, and to endorse the Keynes (of Tract days) recommendation for official intervention to support the forward market when the currency is under temporary attack. Roosa, even more surprisingly, says little about what would happen in the event of a major crisis of confidence, presumably either because he has faith in the soundness of the international credit structure or because he is more optimistic about countervailing action in time of crisis by his banking and government colleagues, than are what he calls ‘our academic friends’. His whole concept of the scope for constructive monetary reform lies in the creation of new reserves.

It is against this limited scope—limited with respect to both the problem and the range of solutions—that Roosa’s book has to be judged. It makes little sense to contrast Roosa’s proposals with proposals for a system of flexible exchange rates or a new gold standard system, because his recommendations are not designed to accomplish as much as these more grandiose schemes for solving at one blow liquidity, adjustment and confidence problems. Roosa’s major contribution concerns the narrow but important question of providing a new reserve unit, a contribution which, because of the close attention he pays to international political sensitivities, and because of his prominent position, merits detailed inspection.

The book is so much a model of urbanity that the reader may easily find himself mesmerized by a persuasive but invalid argument containing a rich mixture of institutional description and original analysis. Roosa is at his best in his defense of the establishment’s actions to build international monetary cooperation into a living reality, to which he himself, as Undersecretary of the Treasury, contributed so much. Yet, to the careful reader, and especially to the academic scientist, much of his analysis is irritating; for in marked contrast to his understanding of existing practices, he is clearly not at home, nor is he convincing, in his attack on alternatives to existing practice. Before turning to the positive contribution in the last of his three chapters it is worth commenting on his theoretical analysis of the system and his attitudes to alternative proposals.
II. The Price of Gold and Exchange Rates

Roosa begins with a discussion of the ‘monetary order’, which he says requires the effective functioning of (1) national currencies for local use, (2) a ‘vehicle’ or trading currency for banks and traders of other countries, and (3) reserve assets for the monetary authorities of each country. Each of these components of the system will consist in some part of created money, regardless of the role of gold, although in practice gold is used very little in national currency use or for payments between individual traders and banks. Most countries, of course, use their own currencies for domestic transactions; dollars and sterling in practice are the important vehicle currencies; and gold is the asset in which, through the centuries, monetary authorities have put their greatest confidence, although the vehicle currencies have also been so used, especially since the war.

The system, Roosa argues, should (a) exert corrective discipline on surplus and deficit countries, (b) assure an ample supply of money and credit for traders and banks, (c) provide credit to cushion or avert unduly disruptive changes, and (d) maintain enough monetary reserves to meet official requirements as trade and payments expand. He then lists some ‘principles and procedures’ of a fundamental nature which are now ‘virtually above controversy’, namely (1) private transactions will take place in national currencies; (2) national currencies will be managed by the national central bank, although it will be responsive to balance of payments discipline; (3) the criteria for national management will be conditioned by pressures strongly biased against deliberate contraction and deflation, on the one hand, and toward maintaining balance and curbing excesses on the other; (4) the monetary authorities will maintain reserves in widely acceptable international assets, mainly gold or gold convertible currencies and IMF drawing rights; (5) most countries will be members of the IMF; and (6) each country will continue to hold reserves.

After this valuable introduction to the good things in life Roosa lists other, more controversial, conditions which he considers essential and which he debates: (1) the necessity of the $35 gold price, (2) the continuing role of the U.S. as world banker, and (3) the need for fixed rates of exchange. On the first point he argues that much of the confidence in currencies throughout the world is rooted in the tradition of the gold-convertible dollar; that the fixed price reinforces the U.S. role as world banker; that to alter the pledge of successive Presidents to maintain the price would shatter the structure of confidence which has supported trade; that, because of its immense size, the U.S. could not exercise an independent judgment in determining its own exchange rate while an altered gold price would be matched within hours by other countries; and that the ‘act of repudiation’ would lead other monetary authorities to convert dollars still held in reserves, so that U.S. holdings, even valued at the new price,
would, after devaluation, be reduced. Nor is an embargo on gold sales an ade-
quate answer, says Dr. Roosa, for in that case the U.S. would have to buy and
sell other currencies to maintain its parity commitment with the IMF, not to
speak of the speculative dangers and the lost ‘anchor of stability’ for the system;
while the proposal to remove only the floor price would create serious conflicts
in the obligations of other IMF members, and at the same time increase net gold
sales because it would cut off the gross inflow which is currently important in
reducing the net outflow.

All this is a powerful defense of the present gold policy of the U.S. govern-
ment—one of the best, I think, that have thus far been given by an official. Yet
many economists will be astonished at Roosa’s considered judgment that a higher
price of gold would result in lower U.S. holdings—even valued at the new price
and regardless of whether or not dollar-holders are compensated. The most com-
monly proposed new price of gold is $70 per ounce, double the current figure.
One major objection to a higher gold price, a solution which seems, on the sur-
face, to solve many current problems with a minimum of fuss, is based on fears
of another ‘golden avalanche’ such as occurred after 1934. At a price of $70 per
ounce, the U.S. would have to buy too much gold! I always thought that vast
private gold hoards (the IMF refers to an estimate for total hoarding of $15 bil-
 lion—which means $30 billion at the higher price) would come onto the London
market at that price as long starved speculators realized profits, and that the U.S.
Treasury would get stuck, not only with gold purchases from other central banks,
but also with the additional private sales, a burden which the rest of the world
has no particular right to expect the U.S. Treasury to assume. Gold holdings
would certainly decline among many central banks currently holding gold simply
for speculative purposes, and dollar balances would increase pari passu.

If Mr. Roosa’s argument helps to dampen fears of a new ‘golden avalanche’
it will serve the opposite purpose than that for which it was intended, and win
more enthusiasts for a higher gold price.1

One final point about the price of gold. It is a pity that Mr. Roosa did not go on
to discuss the implication of a change in the margins at which the Treasury buys
and sells gold. Throughout he leaves the impression that the U.S. price of gold
is fixed at $35 an ounce, although he must, of course, be aware that the U.S.
does not buy and sell gold freely at $35 an ounce; it buys it at $34,9125 and
sells it at $35,0875, a total spread of ½ per cent. Yet the IMF regulations
permit a total spread of 2 percent, and others (including myself 2) have advoc-

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1 This is not to deny that there is probably some precise increase in the price of gold
which would leave Treasury reserves unchanged. But it is obvious enough that no one
knows precisely what that price is.

2 Cf. The International Monetary System: Conflict and Reform. Montreal 1965
(Private Planning Association of Canada).
ated that the U. S. take advantage of this permissible margin (or even a wider one) to allow a greater price fluctuation on the London market, thus moving in the direction of eliminating the one-way option which currently operates to the advantage of gold speculators. It would have been interesting to have Dr. Roosa’s opinion on the advantages of the present margins, or the disadvantages of widening them up to 1 per cent on either side of par—or, after discussion with the IMF, to an even wider extent.

I should be inclined to say that Roosa ignores the gold margins as an insignificant detail were it not that in his last chapter (entitled ‘Agenda for the Future’) he makes certain recommendations in which the width of the margins assumes great importance. Roosa argues in that chapter that ‘a compelling case can be made’ that only countries which ‘undertake, as the United States has done for so long, to buy and sell gold at a par value corresponding to the implied gold content of the parity for its currency that it has declared for the IMF’, should be eligible for participation in the creation of his new reserve asset (p. 84). Now this is indeed confusing. Literally, if Europe bought and sold gold at its par gold content and the U.S. did likewise this would mean absolutely rigid exchange rates (given government or private arbitrage) and would constitute a major change from the present system, tying money market interest rates together. However, the qualifying phrase (‘as the United States has done...’) seems to imply gold margins in Europe of $\pm \frac{1}{4}$ per cent, which again would alter the exchange system by an extent that would depend on the method by which a single gold price (expressed at appropriate cross rates) were maintained in different areas. On the other hand, gold margins at the maximum permissible IMF limit of $\pm 1$ per cent (determined incidentally by IMF Regulations, not by the IMF Articles of Agreement) would allow exchange variations of $\pm 2$ per cent, which, however, would probably be permitted by the Fund as a ‘multiple exchange practice’ (this wider margin is currently permitted to allow for chains, e.g., Australia pegging to the pound sterling, sterling to the dollar, the dollar to gold, etc.).

The point of all this is to lament the fact that Roosa has not taken the trouble to provide enlightenment on an issue that is exceedingly important, especially in view of Roosa’s advocacy of government operations in the forward market; the width of the exchange margins on this account are of crucial importance in determining the allowable disparities between interest rates in different centers. Nor is it clear whether Roosa intends that European countries should peg to gold alone or continue to peg to the U.S. dollar in addition to buying and selling gold; the difference between the various exchange systems is far from inconsequential.

On Roosa’s argument for a continuing role of the U.S. as banker, I completely agree. If anything, he understates the case to the same degree that he overstates the case for the fixed price of gold. The U.S. would have been the world’s
banker regardless of its gold buying policy. Had the U.S. in, say, 1940 or 1950 refused to accept gold it would have solidified to an even greater extent the role of the U.S. as banker, enhancing its role as a reserve currency without diminishing it as a vehicle currency: After all, what else could Europe have done? In fact, one of the virtues of the present system based on gold (from the point of view of Europeans) is that it allows Europe some control (in the short run) over the U.S. role as banker, almost the reverse of Roosa’s argument.

Roosa’s argument for fixed rates of exchange is on a disappointingly low level. The best case for fixed rates rests on carrying the domestic functions of money, in its roles of unit of account, medium of exchange and store of value, to the international plane, an argument implicit in the concept of ‘an optimum currency area'. Instead of discussing this issue on the masterful level of his earlier treatment of different currency roles, Roosa merely states that if rates are left alone ‘free exchange markets ... will degenerate into disorderly chaos if they do not have some fixed points of reference’. And then ‘this has in practice been provided by the system of fixed exchange rates’ (p. 27).

All this is nonsense. What Roosa should have said, and his argument as to why the dollar developed as a vehicle currency ought to have led him to it, is that out of many monies, whose prices are free, one will develop as a unit of account, and perhaps another currency (or more likely the same one) will grow as a medium of exchange; in other words, a money of monies, a dominant currency, will arise. But this is not an argument against flexible rates; it is only a recognition of the theoretical fact that if there are \( n \) currencies in the world only \( n - 1 \) exchange rates will grow out of the \( \frac{1}{2}n(n-1) \) theoretically possible independent exchange rate combinations.

Nor does Roosa’s hypothetical example (p. 27) of a world composed of the U.K., France, and Japan going on flexible rates lend any support to his argument against flexible rates unless he is assuming that monetary policy has abdicated its proper functions (in the example he gives, it is sufficient that the country in which productivity has gone up increase its money supply to prevent appreciation and/or deflation). And his suggestion that the Canadian example is the ‘exception which proved the rule’ is entirely misleading; Mr. Roosa should be as aware as anyone else that the Canadian troubles were the direct consequence of monetary mismanagement rather than an inescapable consequence of her floating exchange system.

The fact is that, throughout this section, Roosa only reveals that he has not devoted as much serious thought to the subject as he has to his preceding analysis of the U.S. role as world banker. His purpose would have been better served by simply assuming that countries want fixed rates without attempting to offer

specious arguments on a subject on which there have already been, from the official domain, an overabundance of platitudes. The procedure is dangerous insofar as it distracts attention from some merits of Mr. Roosa’s book in the final section.

III. The Fund Unit Scheme

After an enlightening discussion of the objectives of monetary reform and the scope for innovation, Roosa develops his own scheme, although he is careful to disclaim that it is his intention to be ‘an ardent advocate of any specific recommendations’. Nor does he put all his eggs in one basket, because he not only develops a new primary reserve unit, but also discusses a variety of secondary reserve possibilities. Yet the creation of a new primary reserve unit located in the IMF is certainly the aspect of his overall ‘agenda for the future’ that will most interest his readers, and is most in need of analysis.

In developing the main scheme Roosa notes that in the early stages in the evolution of central banks for national economies, it was found convenient to establish two parallel functions, those of a ‘banking department’ and those of an ‘issue department’. The IMF, he says, is in effect a banking department, and he urges that a new entity be established, an ‘issue department’ for the distinct purpose of creating monetary reserves. The object issued would be a new ‘currency’, a deposit at the Fund which he calls ‘Fund Units’, either a piece of paper representing a claim on the Fund, or a transferable deposit on the Fund books.

The new unit would be built upon contributions of ‘major’ national currencies, mainly those which have been drawn upon in the IMF over the past, provided the countries that are eligible by this criterion (1) maintain the gold value of their contributions to the Account (as they do now with respect to IMF commitments), (2) agree to accept from other monetary authorities an amount of Fund Units at least equal to their own individual accumulated contribution, and (3) buy and sell gold at its par gold content (this is qualified in the sense that only ‘a compelling case might be made’ for it). In practice this criterion would probably restrict ‘backing’ for the new unit, at least at the present time, to currencies not much different from those of the Group of Ten.

The Account could be managed, Roosa suggests, by a new special committee of the Governors of the IMF (probably including the Managing Director) which would review proposals for increasing or decreasing the size of the Fund, and recommend action at the yearly meeting of the IMF Governors (or perhaps sooner, as in other IMF matters, depending on urgency), which would then act on the recommendations on the basis of (say) a two-thirds majority of the weighted votes. The Governors’ Committee itself—in some respects analogous
to the U.S. open market committee (although less powerful)—would be the crucial center of the procedure and might be composed of representatives of the contributing countries, with perhaps a weight of one-third allocated to the non-participating countries. For the IMF Governors themselves (usually Central Bank Governors or Ministers of Finance) to have authority to accept or reject recommendations, an amendment to the Articles of Agreement would have to be ratified by the legislatures according to provisions already laid down in the Articles.

The countries eligible for backing the new unit would not be obliged to accept their full share (determined by a variety of criteria based on importance and past use) of any increase voted by the Governors; Roosa is very careful not to tread on the toes of this aspect of sovereignty. If any country wanted a smaller deposit than that allotted, the shortfall would be made up by a redistribution of allotments to the remaining eligible countries.

In exchange for the deposit of its own currency (actually interest-bearing liabilities) into the Fund Account, a country gets a claim (Fund Units) convertible, at par values, into the currencies of other eligible countries. Because this represents an economic advantage (a claim of real resources) it is worth paying a price for; for this reason Roosa suggests interest payments charged to a participating country at a rate, say, of 3 per cent. The interest payments would be used to cover expenses of the new department and over time build up a reserve in the event of any possible losses through outright default on the part of any participating country.

The Fund Units would be used to make official settlements with other countries or international organizations; they would constitute reserve assets in the full sense of the word in view of their gold-value-guaranteed property. The U.S., Roosa suggests, could use its holding of Fund Units to buy other currencies from their issuing central banks and in turn sell those currencies to American firms (this would be a strange practice for the U.S. !); or it could exchange Fund Units for unwanted dollars other central banks had been accumulating; or it could use them to lend to the IMF; and so on. Initially at least, however, Fund Units should only be used for official settlements with other countries or international organizations, i.e., they would not circulate privately.

In essence Roosa's scheme would turn the IMF into a world central bank. A new world currency unit, a Fund Unit, would be created, presumably convertible into gold, but backed by the interest-bearing liabilities of the major countries, the gold value of which would be preserved. The amount of the permissible fiduciary issue would be controlled by the weighted decisions of the national governments, but any of the participating countries would have the right to limit the extent of their individual participation in the unit, and also, therefore, the extent to which they are required to accept the unit.
IV. Eligibility, Interest Payments and Acceptability

Roosa’s plan might be contrasted with alternative proposals, such as Bernstein’s or Triffin’s, but it is, I think, more instructive to appraise its superiority, if any, over the existing IMF system and that system as it can be expanded under the existing Articles of Agreement. Before turning to that important question, however, it is useful to consider first a few criticisms or queries with respect to some details of Roosa’s agreement which would have to be sorted out in the event of the plan’s adoption.

There is, first of all, a problem concerning procedure. What constitutes acceptance of the plan? Presumably the Governors of the IMF will have to vote on it, and a two-thirds majority will constitute acceptance. But in a system in which there is in effect a ‘Fund within the Fund’ the Governors could not then propose the plan to their respective legislature, until prior agreement of the ‘inside Fund’ had been worked out; these details cannot be worked out until (a) the rules for eligibility have been decided and (b) the eligible countries have indicated the extent of their willingness to contribute.

Suppose that the Governors accept the plan and that the rules of eligibility and proportionate shares have been worked out, so that these hurdles have been overcome. What would happen then if only one or two or even three countries agreed to contribute to the Fund Account even though ten countries are eligible? Would, as Roosa suggests, the shares of the seven unwilling countries be distributed to the (say) three willing countries? The problem is one of simultaneous determination, for the willingness of one country to contribute depends on the willingness of other countries, since the usefulness of the Fund Unit, in its initial stages, is limited, according to the plan, to the acceptability of the unit by other participants. At the extreme, if the U.S. alone agreed to contribute Fund units, only the U.S. would be obliged to accept them, and that would not constitute any additional liquidity for anyone. The only change is that the U.S. would have to pay interest on her contribution in exchange for a useless asset, except insofar as the gold guarantee made it attractive for other countries.

This means that a minimum number of eligible countries must agree to contribute before the plan can be initiated. There should be prior agreement on the plan, as well as agreement on minimum contributions of each eligible country, by all the eligible countries. In other words, the Group of Ten should make the proposal for the plan to the Board of Governors.

A second question arises with respect to the conditions of eligibility that Roosa has laid down (though he is careful to be undogmatic). Leaving aside for a moment an objection (which I think is nevertheless important) that the creation of an additional special group within the Fund constitutes a splintering of its organization (a process begun with the ‘borrowing arrangements’ and followed
by the scheme for compensating export shortfalls), one of Roosa’s criteria for eligibility (for which he says a ‘compelling case’ can be made) is that contributing countries buy and sell gold at par value. As I noted earlier, presumably he means par value plus or minus specified gold margins. But is there any need to link the important question of the system by which gold points are maintained to the Fund Unit Scheme?

I fully agree that the European countries should adhere to Article IV(4)b of the Fund Agreement, as the U.S. (alone among Fund members) now does, since they have moved from dollar reserves to gold reserves, although I should much prefer that they, along with the U.S., would do so at widened gold margins. However, European countries have been unwilling to do so in the past, preferring the asymmetrical policy of pegging their currencies to the dollar (at margins of ± 3⁄4 per cent), and I do not see why their eligibility for participation in a new reserve unit would be a sufficient attraction for them to alter their exchange system. The Roosa plan can presumably stand without adherence to this clause, and the proposal for gold-pegging in Europe, as opposed to exchange-pegging, has merit regardless of whether the Roosa proposal is acceptable. Gold-pegging need not be a condition of eligibility.

The other objection concerning eligibility relates to the division of the IMF into various classes of membership. This splintering tends to weaken rather than strengthen it. Instead of inventing another class of membership would it not be better to dispense with that class already implicit in the Paris Club arrangements, and widen it to include all Article VIII members, i.e., all countries whose currencies are convertible (in the modest sense that the Fund uses the term)? I see no reason for inventing an elaborate criterion of eligibility, such as Roosa suggests, but I do see many advantages to allowing all Article VIII countries to participate.

If that alternative were adopted, the prestige of Article VIII status would be greatly enhanced, and it would create a positive incentive (insofar as participation in the Account conveys an economic privilege) for countries to make their currencies convertible. It would also mean that some of the smaller countries in the world, including a few less advanced countries, would have active representation in the Account, if only to a small extent. Moreover, it would markedly ease the extremely difficult task of allocating shares; a simple procedure of allocating shares according to the percentage of total quotas in the Article VIII countries (twenty-eight in 1965) of any one eligible member would suffice, and at the same time allow flexible adjustments in the expansion of participants as further countries achieved Article VIII status.

Roosa’s provisions regarding interest payments involve a problem he has not, apparently, foreseen. It is surely too pessimistic to use the proceeds of the 3 per cent interest paid to the ‘issue department’ for operating expenses and
a ‘surplus’ to cover any potential default. If the scheme is successful; it would not be unrealistic to assume that, over a period of, say, 10 years, the Account had grown to at least $ 10 billion. Yet this would imply yearly interest payments of $ 500 million and an accumulated reserve totalling well over a billion dollars. As it is, the IMF is embarrassed by excessive reserves accruing from their $ 800 million of gold investments in U.S. Treasury bills, and there is no reason to compound this problem by creating additional, and quite unnecessary, surpluses. Some scheme for redistribution of interest would be necessary. Possibilities that come immediately to mind include a redistribution of interest to IMF members in proportion to quotas, use of the interest for investment in IBRD bonds, or use of interest to pay IMF member’s shares of UN costs.

It is important to mention in passing that while Roosa is absolutely right about the need for interest payments (because the contributing countries would be getting claims on the resources of other members), this provision may be difficult for electorates or parliaments to understand or accept. Whereas under the present system of reserve currencies, a non-reserve currency country receives interest on its dollar or sterling holdings, under Roosa’s scheme they would pay interest on their debts to the Fund. The difference is nevertheless justified if gold commands a liquidity premium over reserve currencies to the extent of interest payments on these currencies and if the 5 per cent paid for the acquisition of Fund Units is less than the opportunity cost of capital in the participating country.

A technical feature of the proposal regarding acceptability of Fund deposits would need to be clarified. If the U.S. or any other participant can sell Fund Units to the IMF to effect a repurchase obligation, the non-participating members of the IMF would be in effect underwriting the assets of the participants. In practice this may not pose a difficult problem since the participating countries in the Account would be the ones whose credit is most credible; but in principle it raises the question of whether or not the assets contributed to the ‘issue department’ are to be put at the disposal of the other Fund members. In other words, what is the relation between the liabilities and assets of the banking and issue departments? To what use, if any, would the issue department put the assets it gets in exchange for Fund Units? Any generalization of these assets would surely be facilitated if the participating membership were an integral part of the existing IMF itself, such as the Article VIII countries.
V. An Alternative for the IMF: Expansion without Renegotiation

The above considerations are details that could, presumably, be worked out through negotiation. We now have to turn to a much more fundamental question. For it is one thing to suggest ways in which the IMF Articles of Agreement can be improved; it would, after all, be remarkable if, twenty years after Bretton Woods, there were not discoverable defects in the constitution. It is quite another thing to prove that removal of the defects are worth the cost of change; constitutions should not be altered for small benefits. The basic question, therefore, is not so much whether Roosa’s plan represents an improvement over the present Fund, but rather whether it is enough of an improvement to warrant renegotiation of the Articles. The alternative is to expand the Fund in directions already consistent with the Articles. To evaluate whether or not this is possible it is necessary to understand clearly the defects in the Fund’s present organization.

The simplest approach to understanding the existing IMF is to think of it in terms of a bank’s balance sheet. On the asset side the Fund has gold and currencies (Fund Holdings), on the liability side member Drawing Rights (more formally, ‘subscriptions’). The assets are equal to the liabilities provided that any drawing in excess of subscription (possible only with a waiver) is regarded as a negative drawing right.

When a country ‘draws’ from the Fund it puts in its own currency and takes out another currency, changing the composition of the Fund’s assets; also, the borrowing country’s drawing rights go down, while the drawing rights of the member whose currency is drawn goes up, changing the composition of the Fund’s liabilities. The immediate impact of a drawing, therefore, is to change the composition of both the Fund’s assets and liabilities, and to increase the exchange reserves of the drawing country (not including ‘Fund Positions’ in reserves). Liquidity outside the Fund is created by a drawing, just as liquidity outside the Fund is destroyed by a repayment (repurchase of the drawing country’s currency).

There are two characteristics of the system that should be emphasized. The first is that the Fund’s total assets cannot be increased or decreased (with one exception to be noted later) without an increase in quotas. The second is that the drawing rights can only be exercised with respect to currencies the Fund actually possesses.

It would be a mistake to suppose that, in the Fund, an increase in quotas is necessary to increase gross international liquidity. For suppose that Britain and the U.S. simultaneously draw equal amounts of each other’s currency from the Fund. Then Fund positions remain the same on both sides of the balance sheet while the U.S. and Britain have increased holdings of each other’s currency.
outside the Fund. In other words, gross liquidity has increased by the simultaneous drawing. An indefinite amount of liquidity could be created in this way provided both parties agreed to it. The transaction would be exactly the same as if the U.S. and U.K. exchanged currencies outside the Fund—a swap agreement without a guarantee.

But, in fact, a problem arises in connection with the multiplicity of currencies in the Fund. When a country draws, what currency should it purchase? The Articles state that the drawing member must ‘represent’ that the currency it wants to draw ‘is presently needed for making in that currency payments consistent with the provisions of this Agreement’.

This clause is in fact an oddity. For the only currency needed for ordinary exchange transactions is the currency to which the member pegs its own currency, which means, in practice, except for the U.S. and the outer members of the sterling and franc areas, the U.S. dollar. For the U.S. itself, the only ‘currency’ it ‘needs’ is gold (at least before it started in 1960 to enter the foreign exchange markets).

In the early years of the Fund it was indeed the U.S. dollar that was primarily drawn upon and used for repurchases. But two related problems arose when the U.S. itself got into balance of payments difficulties. The first was that drawings of U.S. dollars would weaken the U.S. gold position; and the second was that the Fund itself became potentially strapped for liquidity when the U.S. desired to make a drawing.

To see the first problem suppose that Britain has a deficit and Germany has a surplus. Britain pegs sterling to the dollar so the Bank of England has to pay out dollars taking up excess sterling to maintain parity (within the limits). Suppose Britain draws dollars from the IMF and uses these to stabilize her exchange rate (keeping her own gold holdings in reserve); then the excess of sterling against marks on the market becomes an excess of dollars against marks. Meanwhile, Germany (who also pegs to the dollar) then has more dollars relative to gold than she wants, so she exchanges dollars for gold at the U.S. Treasury. The U.K. drawing of dollars thus shifts the U.K. deficit onto the U.S. at the expense of the U.S. gold stock. The end result is that Britain gets a debtor position in the Fund, while the U.S. gets a creditor position. However, Germany has gained gold at the expense of the U.S.

To get around this, it would appear to be simplest if the U.S. drew gold from the Fund to cancel her creditor position, because gold is the international asset to which the U.S. dollar is pegged. However, the Fund is not permitted to sell gold (except for income purposes). The U.S. cannot therefore draw the asset from the Fund which she needs for making current payments.

The next best thing to drawing gold in this case is for the U.S. to draw marks. If the U.S. makes a drawing in marks she can cancel her creditor position in the
Fund and sell marks on the exchange market. Since this will reduce Germany’s dollar-gold ratio, she may then buy back some (or all) of the dollars with gold, so that the U.S. gets back (at least some of) the gold she initially lost. Then the British deficit and the German surplus has been converted into a British debtor and a German creditor position in the Fund, while the U.S., by her drawing, has more or less immunized her gold holdings from the British deficit.

This type of problem is the origin of the Fund policy on ‘currencies to be drawn’, which adopted a criterion based on the reserve and payments positions of various countries. Instead of Britain drawing dollars (which she directly needed for exchange operations), it was considered simpler to make a drawing at once in marks, to by-pass the indirect effect on the U.S. balance.

Yet this process merely shifted the problem to a different direction. Fund holdings of surplus (mainly continental countries’ currencies) dwindled until the Fund itself became short of reserves the U.S. may need to draw, the second problem referred to earlier. The Fund is liquid in dollars, which the U.S. believes should not be moved out of the Fund onto the exchange markets, because it would weaken the U.S. gold position, whereas the Fund is illiquid in the currencies of surplus countries, who could afford to have them dropped on the exchange markets. This problem of the illiquidity of Fund’s assets on her balance sheet is aggravated by the fact that a substantial proportion of the Fund currency holdings are in the inconvertible currencies of many less developed countries, currencies that are useless for exchange operations.

To solve this problem the Fund decided to replenish its holdings of scarce currencies through the ‘borrowing arrangements’. These represent, in effect, currency ‘standbys’ to the Fund that are on call in the event of major drawings where scarce currencies were needed.

Although the borrowing arrangements played an important role in ‘rolling over’ the financing of the sterling deficit in 1964, their significance lies beyond their practical usefulness to date. For they outline a means by which the functions of the IMF can be improved even without any amendment to the Articles of Agreement.

To see this it is useful to return to the Fund’s balance sheet. As pointed out above, two weaknesses appear on the ‘asset side’, which have ramifications for the ‘liability side’. The Fund’s assets are weak (a) because of Fund Holdings of inconvertible currencies (largely of less developed countries), a consequence of the Fund’s failure to implement Article IV(8) requiring maintenance of the gold value of Fund’s assets, and (b) because of the plethora of holdings of the convertible currencies of deficit countries and the scarcity of holdings of surplus countries. In contrast to the former problem, which could be resolved by better cooperation between the IMF and the IBRD, the scarcity of surplus currencies is simply an indication that the Fund has provided a source through which
liquidity has been channelled from deficit to surplus countries, i.e., that the Fund has been performing the function for which it was intended.

These limitations on the asset side of the Fund’s balance sheet imply a problem for a member also on the liability side. A member knows it cannot draw currencies not available to the Fund, although the borrowing arrangements move in the direction of mitigating this defect. The problem is especially acute for the large countries: The U.S., for example, has had to acquire a standby for the gold tranche! Even more bizarre, when the U.S. recently wanted to draw on its gold tranche standby it encountered serious opposition when it wanted to include francs in its bouquet of currencies!

One comparatively easy solution is to increase IMF quotas (the 25 per cent increase about to be implemented, presumably the maximum that was negotiable, is pathetically small in relation to the magnitude of the problem). Many international economists (including myself) would certainly like to see the Fund two or three times its present size. Yet that encounters a variety of objections. The most common are:

1) The Continental Bloc is unwilling to see a liquidity solution through the IMF because it believes the U.S. who has about one-quarter of the votes dominates that institution.

2) The U.S. is reluctant to see the gold subscriptions come out of Treasury holdings.

3) Both the U.S. and Continental powers are loath to see quotas of the less developed countries increased on the supposition that the latter misuse these resources for long term finance, filling the Fund with inconvertible currencies.

These objections can be disposed of by a series of measures dealing with the distribution of quotas, revised provisions with respect to gold subscriptions, and more stringent conditions applied to perpetual borrowers. But there is a further class of more technical objections, including the nature of Fund liquidity (it is conditional rather than automatic) and the repayment provisions (Fund drawings beyond the super gold tranche have to be repaid). Now it has long been recognised that the conditional nature of Fund drawings is a virtue rather than a defect, especially since automaticity can readily be extended, if the need arises, into the first credit tranche. But the second consideration, that the Fund provides ‘borrowed’ rather than ‘owned’ reserves has merit even if only because most countries believe it has merit. If countries are reluctant to use Fund liquidity because drawings have to be repaid, that may constitute a defect of the Fund even though the reluctance is irrational.

But it is a mistake to suppose that a revision of the Articles of Agreement is necessary for the Fund to provide what would in all respects be ‘owned’
reserves, as in Dr. Roosa’s new scheme. It is sufficient to provide new owned reserves through an extension of a device the Fund has already begun, namely, the borrowing arrangements.

Under Article VII(2) of the IMF Agreement the Fund may borrow scarce currencies ‘on terms and conditions agreed between the Fund and the member’. Would it not be within the scope of these terms to borrow currencies under terms which provide the lending country with a credit instrument equivalent to a Fund Unit? The member ‘lends’ its currency to the Fund getting in return an interest-bearing Fund Unit, a gold-guaranteed claim on the Fund’s resources with all the properties of a super-gold tranche position.

To see how the units might come into effect consider the following hypothetical balance sheet of the IMF (cf. Table I).

<table>
<thead>
<tr>
<th>Table I (values in millions of U.S. Dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fund Holdings</td>
</tr>
<tr>
<td>Gold    4,000</td>
</tr>
<tr>
<td>$ U.S.  5,000</td>
</tr>
<tr>
<td>ICC     6,000</td>
</tr>
<tr>
<td>CC      1,000</td>
</tr>
<tr>
<td>Total   16,000</td>
</tr>
</tbody>
</table>

ICC: Inconvertible Currencies
CC: Non-U.S. Convertible Currencies

From this position let us suppose the U.S. wants to draw $3,000 million worth of convertible currencies. Obviously, the Fund cannot provide them because it has only $1,000 million of non-U.S. convertible currencies. The Fund could, however, ‘borrow’ $2,000 million in convertible currencies by creating Fund Units, giving the CC countries $2,000 million worth of Fund Units in exchange for $2,000 million of convertible currencies. The transaction with the U.S. would then take place in two stages. First the U.S. would draw the existing $1,000 million of CC from the Fund so that the Fund holdings of dollars would go up by $1,000 million while the drawing rights of the U.S. would go down by $1,000 million and those of CC countries up by 1,000 million. Second, the IMF would borrow $2,000 million of CC providing a separate account for the CC countries’ drawing rights of $2,000 million. After the new supplies of CC have been lent to the U.S. the new balance sheet of the Fund would be as in Table II.
Table II

<table>
<thead>
<tr>
<th>Fund Holdings</th>
<th>Drawing Rights</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gold 4,000</td>
<td>$ U.S. 1,000</td>
</tr>
<tr>
<td>$ U.S. 8,000</td>
<td>ICC 4,000</td>
</tr>
<tr>
<td>ICC 6,000</td>
<td>CC(a) 11,000</td>
</tr>
<tr>
<td>CC 0</td>
<td>(b) 2,000 Fund Units</td>
</tr>
<tr>
<td><strong>Total 18,000</strong></td>
<td><strong>Total 18,000</strong></td>
</tr>
</tbody>
</table>

Total Assets and Liquidity would each have gone up by $2,000 million, the U.S. would have got a total of 3,000 million of CC (at the expense of $3,000 million of drawing rights), while by borrowing the Fund would have provided an additional $2,000 of liquidity. Of course it can do this at the present time merely by activating the present borrowing arrangements. However, the above method provides a wedge through which an important new experiment can be tried, that of providing a generalized asset, the Fund Unit. The Fund Units would have all the properties of a ‘super-gold-tranche’ position in the Fund, and all the advantages of the Roosa scheme.

When the U.S. balance is corrected, and if the other convertible currency countries develop a deficit position, the Fund can ‘borrow’ the U.S dollar, which we may suppose has become scarce. Suppose, for example, these countries need, and it is agreed they should be able to get (over a specified period of time), U.S. $11 billion, not counting the Fund Units (which are a part of their owned reserves). Since the IMF possesses only U.S. $8 billion it borrows U.S. $5 billion from the U.S. giving in exchange an equivalent amount of Fund Units. The balance sheet of the Fund, after the combined transaction, would then be that shown in Table III.

Table III

<table>
<thead>
<tr>
<th>Fund Holdings</th>
<th>Drawing Rights</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gold 4,000</td>
<td>$ U.S.(a) 12,000</td>
</tr>
<tr>
<td>$ U.S. 0</td>
<td>(b) 3,000 Fund Units</td>
</tr>
<tr>
<td>ICC 6,000</td>
<td>ICC 4,000</td>
</tr>
<tr>
<td>CC 11,000</td>
<td>CC(a) 0</td>
</tr>
<tr>
<td>(b) 2,000 Fund Units</td>
<td></td>
</tr>
<tr>
<td><strong>Total 21,000</strong></td>
<td><strong>Total 21,000</strong></td>
</tr>
</tbody>
</table>
Assets of the Fund grow by an amount which depends on Fund borrowing, while the virtues of the revolving credit system are retained.

It is interesting to note that this technique provides a useful means, in conjunction with increases in quotas, for maintaining a desired proportion between unconditional and conditional liquidity. When the Fund borrows, under the manner described above, unconditional liquidity is created (Fund Units are completely at the disposal of the owners and must be accepted without question by other members) whereas, when a country draws they must do so, except for gold tranche drawings, only upon the acquiescence of the IMF.

Under the technique outlined above the Fund could achieve all or most of the benefits of Roosa's plan without renegotiating the Articles of Agreement and without further proliferation of classes of Fund membership. Fund Units would be credited to the account of the scarcer currencies in the Fund and there would be no change in the system of control that has proved to be workable in the past.

VI. Concluding Remarks

To conclude on this technical note would, however, be disingenuous. The real issues are not technical at all—they are political. For, barring political considerations, no international monetary reform would be necessary.

The post-war payments system based on gold, dollars and sterling worked perfectly well as long as non-reserve countries were willing to accumulate dollars (or sterling) rather than gold; and it could continue to work effectively if countries now refrained from converting dollars into gold. But there are fundamental reasons why they have become reluctant to do so.

Two motives are endogenous to the system itself, i.e., they would exist even if all countries wanted to preserve the existing system. The first of these is the profit motive (the possibility of an increased gold price) which needs no further explanation. The second is a control motive. The control motive is based on a belief that it is necessary to 'discipline' the U.S. and force it to share in the burden of adjustment. In order to shift some of the burden of adjustment\(^1\) from Europe to the U.S., therefore, Europe has converted dollars into gold wherever European authorities have felt America was not taking sufficiently seriously its balance of payments deficit.

There are also, however, two motives—one economic and one political—for conversion of dollars which constitute attempts to alter the system itself. The

\(^1\) See my article 'The Proper Division of the Burden of International Adjustment', The National Banking Review, September 1965, for a theoretical discussion of this problem.
economic motive is to prevent the U.S. from exacting the 'seigniorage' from international reserve expansion, the economic basis of the charge that the dollar accumulations of European central banks allow American companies to buy up European factories. The political motive (implicit in French complaints) is an attempt to frustrate the extension of American economic power through the internationalisation of the dollar, a form of penetration akin to the extension of culture through language.

These issues, which lie outside the scope of Roosa's book and this review, need to be raised if only to suggest the irrelevance of many of the technical details of the various schemes for a new reserve unit, and the improbability of an adequate solution to the international monetary problem in the current Group of Ten discussions. These discussions may score a limited success in creating a new reserve unit—and to this end Roosa's book will have proved helpful—but even this could have the defect of beguiling us into thinking that out of an arbitrary new reserve unit we get a sound international monetary system. Monetary sovereignty is, after all, a companion to political sovereignty, and it is extremely doubtful that international monetary integration can be achieved without a higher degree of political integration.