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To: Members of the Executive Board

From: The Secretary

Subject: Considerations Relating to the Long-Term Global
Need to Supplement Existing Reserve Assets

There is attached for consideration by the Executive Directors a paper on long-term aspects of SDR allocation, which has been scheduled for Executive Board discussion on Monday, September 12, 1983.

If Executive Directors have technical or factual questions relating to the statistical material presented in this paper prior to the Board discussion, they should contact Mr. Rhomberg (ext. 73751), or until September 2, Mr. von Furstenberg (ext. (5)7670).

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INTERNATIONAL MONETARY FUND

Considerations Relating to the Long-Term Global Need
to Supplement Existing Reserve Assets

Prepared by the Research Department

(In consultation with the Legal Department
and the Treasurer's Department)

Approved by Wm. C. Hood

August 26, 1983

On August 1, 1983, the Board discussed "Considerations Relating to a Possible Proposal for an Allocation of SDRs in the Current Basic Period" (SM/83/157), thereby continuing deliberations that had begun early in 1981. ^{1/} In the course of these discussions (EBM/83/115), which are summed up in Buff 83/213, the staff was asked to focus further on the assessment of the long-term global need to supplement existing reserves, which is a key element in any decision to allocate SDRs in accordance with the Articles of Agreement.

The present paper responds to this request. Like its predecessor, it is intended to assist the process of consultations conducted by the Managing Director in order to ascertain whether there is sufficient support for a proposal on SDR allocation. Section I examines the concept of the long-term global need for reserve supplementation as it is laid down in the Articles. Section II provides projections of medium-term reserve developments, particularly for the period 1983-86, on the basis of the most recent World Economic Outlook. Section III discusses present and prospective conditions of reserve supply, the form that any increase in reserves over the next several years is likely to take, and various consequences of these developments for the composition, quality, and stability of reserve holdings. Section IV deals with the question of timing of allocations over the long run. Section V provides a summary of the presentation and some concluding remarks.

I. Assessment of the Long-Term Global Reserve Need

In specifying the conditions for SDR allocation, Article XVIII, Section 1(a) prescribes that:

In all its decisions with respect to the allocation and cancellation of special drawing rights the Fund shall seek to meet the long-term global need, as and when it arises, to supplement existing reserve

^{1/} The earlier papers and Board discussions are listed in SM/83/157, p. 4, footnote 1.

assets in such manner as will promote the attainment of its purposes and will avoid economic stagnation and deflation as well as excess demand and inflation in the world.

This section briefly considers the various elements of this provision. None of the considerations brought forward is novel; all have been taken up in the deliberations leading to the first amendment of the Articles and to subsequent SDR allocations.

The first point to note is that Article XVIII, Section 1(a) refers to allocations as having to meet the need to supplement existing reserve assets, rather than the "demand" for additional reserves. Even though the effective demand for reserves may be satisfied, there could still be an unsatisfied need for reserve supplementation. Indeed, in the long run the demand for reserves is always satisfied at some price and with some economic consequences or accompanying conditions. What is relevant for an assessment of the need for reserve supplementation is the effect of SDR allocation, or the absence of allocation, on the functioning of the international monetary system and, specifically, on matters related to the purposes of the Fund.

Second, as the record of discussions at the time of the drafting of the first amendment shows, the reference to the need having to be of a long-term character was inserted to ensure that decisions on allocation and cancellation of SDRs were taken chiefly in response to the long-run evolution of reserve needs. Allocations were not to be varied for the purpose of "fine tuning" international monetary conditions from year to year or from one phase of the economic cycle to another. In selecting a span of five years as the normal length of the basic period, the drafters of the first amendment directed the attention of decision makers to reserve needs over a medium-term period. The Articles do permit allocations within a basic period at varying rates, as well as basic periods of a duration other than five years (Article XVIII, Section 2(c)). Moreover, they provide for the possibility of responding to unexpected major developments by varying the rates or timing of allocations (Article XVIII, Section 3). They do not, however, invite attention in the decision process to transitory needs arising in the course of cyclical or other transient developments.

Third, the other attribute of the need for reserve supplementation--that it be global--has been taken to imply that the need must affect many and diverse, but not necessarily all, countries, and that failing to meet it might have widespread repercussions inimical to the Fund's purposes.

Fourth, the provision on SDR allocation (and cancellation) gives guidance with respect to the assessment of the long-term global need for reserve supplementation, and the manner in which it should be met through allocation, by two further references, one general and one specific. The general reference is to the promotion through SDR allocation of the attainment of [the Fund's] purposes. These purposes are set forth in Article I of the Fund Agreement. The specific reference is to the avoidance of

economic stagnation and deflation as well as excess demand and inflation in the world. As discussed above, the description, in the same provision, of the need to supplement existing reserve assets as relating to the "long term" makes it clear that this specific reference points to the avoidance of persistent trends of stagnation or inflation, not to any use of SDR allocation in serving countercyclical objectives.

II. Projections of Imports, Reserves, and Reserve Demand Through 1986

Although the provision of the Articles with respect to decisions on SDR allocation refers to the need, not the demand, for additional reserves, any assessment of the existence of such a need must start with considerations relating to the expected evolution of the demand for and the supply of reserves, and to the adequacy of international reserves and liquidity resulting from the interaction of demand and supply tendencies. This section presents projections by major groups of countries of near-term differences between the stocks of non-gold reserves demanded and actually held, and then discusses how such differences bear on the question of the effect of SDR allocations on reserve holdings. Appraisals of reserve supply by components and of the quality of supply in the long run follow in Section III.

1. Imports and reserves

As outlined in SM/83/157, estimating the demand for non-gold reserves requires projections of import volumes and prices by groups of countries. In 1983, the volume of merchandise imports is expected to start growing for all groups except the oil exporting countries, with industrial countries leading the recovery. Thereafter, the annual rate of growth in real imports would tend to rise strongly in developing countries while falling back somewhat in industrial countries (Table 1). From 1985 on, the annual rate of inflation in foreign trade prices, as measured by the dollar-based index of import unit value, is expected to remain between 5 and 6 percent for all country groups. Altogether, the dollar value of world imports is projected to grow by not more than 10 percent a year in the period before 1986, compared with average annual rates of growth of over 17 percent ^{1/} during the previous recovery phase, 1975-79.

The estimated growth in the quantity of non-gold reserves demanded is correspondingly modest, as the ratio of reserves to imports is projected to show little change for all countries combined--falling in industrial and rising in developing countries. Although the excess demand for

^{1/} Since, as a working assumption for the purpose at hand, the SDR price of the U.S. dollar is not projected to change in the future, so that growth rates in SDR and dollar values would be identical, the comparison is with the growth in the dollar value of merchandise imports.

Table 1. Percentage Growth Rates of Import Volume, Unit Value, and Value Within Years, 1983-86, and the Resulting SDR Values of Imports Centered at the End of Each Year, for World and Major Country Groups ^{1/}

		World	Industrial Countries	Oil Exporting Countries	Non-Oil Developing Countries
(a) Growth rates projected (In percent)					
1983	Volume	3.5	6.0	-10.0	1.0
	Unit value	1.2	1.0	2.0	1.0
	Value	4.7	7.1	-8.2	2.0
1984	Volume	4.6	5.0	1.0	5.0
	Unit value	4.6	4.5	5.0	4.5
	Value	9.4	9.7	6.1	9.7
1985	Volume	4.8	4.5	4.0	6.0
	Unit value	5.0	5.0	5.0	5.0
	Value	10.0	9.7	9.2	11.3
1986	Volume	4.9	4.5	6.0	6.0
	Unit value	6.0	6.0	6.0	6.0
	Value	11.2	10.8	12.4	12.4
(b) Merchandise imports centered at year-ends (At annual rates in billions of SDRs)					
1982		1,575	1,079	138	341
1983		1,649	1,156	127	348
1984		1,804	1,268	134	382
1985		1,985	1,391	147	425
1986		2,207	1,541	165	477

^{1/} The SDR value of the U.S. dollar is assumed to be 0.90653, the same as at year-end 1982.

reserves estimated for developing countries and for all countries combined could still be rising in 1983 (Table 2), stock disequilibria in reserves have, in the past, tended to be eliminated within a few years. ^{1/} Assuming similar stock adjustment in future aggregates, forecast reserve holdings would tend to grow from year-end 1983 to year-end 1986 (even without SDR allocations) so as to eliminate any excess demand for reserves on balance for all countries, though not for each of the major country groups. Under the present outlook, non-oil developing countries are not likely to be able to eliminate their excess demand for reserves by 1986, although oil exporting countries may do so. Industrial countries would retain some excess supply (SDR 12 billion), approximately matching the excess demand of non-oil developing countries (SDR 11 billion).

2. The demand for SDRs and other reserve assets

Developments in the demand for reserves and in the reserve positions of different countries are important determinants of the effect of an SDR allocation on global reserve holdings in the short and medium run. If all recipients of SDR allocations (or of SDRs acquired from the Fund) merely added them to their reserve holdings without making changes in their holdings of other assets, SDR allocations would add pro tanto to world reserves. In contrast, if all recipients of SDRs reduced their holdings of other reserve assets by corresponding amounts, total reserve holdings would be unaffected by SDR allocations, which would then influence only the composition of reserves. The most likely outcome lies between these extremes, with SDR allocations causing an addition to total reserve holdings but by less than the amount of the allocations. The degree of substitution of SDRs for other reserve assets will depend on the reserve positions of individual countries and on the manner in which SDRs are being acquired--by allocation or by purchase.

In the short run, allocated SDRs are, for the most part, likely to increase total reserve holdings by the following classes of countries: principal reserve centers, especially the United States; other member countries with reserve holdings temporarily exceeding their normal demand, which cannot reduce reserves without giving unwanted support to their exchange rates; and member countries with reserves temporarily below their normal demand, which may welcome the replenishment that is made possible by allocation without requiring an increase in their indebtedness. In contrast, members in a sustainable balance of payments position holding approximately the desired amount of reserves are the ones most likely to react to an SDR allocation by reducing their holdings of other reserve assets so as to leave their total reserves unchanged. Finally, members in the process of financing balance of payments deficits at a time of SDR

^{1/} A description of the evidence that has accumulated on this point is contained in the first part of the paper on "International Liquidity and Monetary Control" by Jacob A. Frenkel, which was distributed to the Board on March 15, 1983 in advance of a recent (March 24-25, 1983) IMF conference.

Table 2. Actual or Forecast Non-Gold Reserves and Estimated Demand for Reserves 1/ and the Resulting Ratios of Non-Gold Reserves to Merchandise Imports for All Countries and Groups of Countries, Year-Ends 1982-86

		All Countries	Industrial Countries	Oil Exporting Countries	Non-Oil Developing Countries
(a) Non-gold reserves at year-ends (In billions of SDRs)					
1982	Actual	338	184	76	70
	Demanded	343	163	96	77
	Difference <u>2/</u>	-5	21	-20	-7
1983	Forecast	354	195	74	76
	Demanded	365	177	93	86
	Difference <u>2/</u>	-11	18	-19	-10
1984	Forecast	385	206	84	85
	Demanded	393	190	98	95
	Difference <u>2/</u>	-8	16	-14	-10
1985	Forecast	422	218	97	96
	Demanded	426	204	105	106
	Difference <u>2/</u>	-4	14	-8	-10
1986	Forecast	468	233	113	109
	Demanded	468	221	114	120
	Difference <u>2/</u>	0	12	-1	-11
(b) Non-gold reserves in percent of merchandise imports <u>3/</u>					
1982 <u>4/</u>		21.5	17.1	55.0	20.5
1983		21.5	16.9	58.3	21.8
1984		21.3	16.2	62.7	22.3
1985		21.3	15.7	66.0	22.6
1986		21.2	15.1	68.5	22.9

1/ The estimates for year-end 1983 allow for the assumed cessation of increases in the SDR value of the U.S. dollar, which had depressed the demand for non-gold reserves by industrial countries and non-oil developing countries one year earlier. For details see SM/83/157, pp. 14-15.

2/ The difference may be interpreted as indicative of holdings exceeding the normal demand for non-gold reserves, if positive, and as holdings falling short of normal demand, if negative.

3/ Source: Tables 2(a), actual or forecast, and Table 1(b).

4/ Some of these ratios differ slightly from those reported in SM/83/157 on account of recent statistical revisions raising the imports reported for non-oil developing countries as a group.

allocation would probably use at least part of the allocated SDRs directly or indirectly for that purpose. 1/

Countries acquiring SDRs from others would ordinarily pay for them with foreign exchange from their own holdings. These transactions would not increase total reserves. An exception to this pattern is any acquisition of SDRs by a reserve center--chiefly the United States--in exchange for its own currency. Since the reserve center pays for the SDRs it acquires by increasing its liabilities rather than reducing its reserve assets, world reserves are initially increased by the amount of the transaction. 2/

It is not possible to say what portion of an SDR allocation would be likely to be added to total reserves in the short run and what portion would be substituted for reserve currencies. The greater the excess demand for reserves, the more likely it appears that SDR allocations would provide a net addition to non-gold reserves rather than induce an offsetting decline in other reserve components. In the long run, however, substitution of allocated SDRs for other reserve assets is likely to be almost complete, as most countries adjust over time to eliminate differences between actual and desired reserve holdings. Hence, as stated at the outset, if there is a long-term global need for supplementing existing reserve assets, it does not derive from any inherent inability of the supply of reserves from existing sources to meet the demand. The next section considers other possible manifestations of reserve need relating to the quality of reserve supply for groups of countries and the world as a whole.

III. Reserve Supply and Financing in the Present System

In the previous section, estimates were presented that suggested that each of the three major groups of countries may be adding between SDR 30 billion and SDR 40 billion to its non-gold reserves from the end of 1983 to the end of 1986 (Table 2). In the absence of SDR allocation,

1/ Some of these SDRs would be paid to the General Resources Account for charges. There are also some other uses of SDRs. For instance, members would pay in SDRs part of their quota subscriptions on the occasion of an increase in quotas.

2/ What use is made of the dollar proceeds by the country selling SDRs to the United States has implications for the level of U.S. and Eurodollar interest rates because the sterilization of the effects of acquiring SDRs with domestic currency by the United States, like the purchase of foreign exchange in intervention operations, normally involves an open-market sale of government debt. Increasing the amount of such debt to be held by private investors can put upward pressure on interest rates unless the country selling the SDRs reduces its international borrowing from U.S. sources or Eurobanks compared with what it would be if it had no SDRs to sell.

most of the growth in reserves will come from further accumulation of foreign exchange, with reserve positions in the Fund expected to grow significantly only for the group of industrial countries. This section concentrates on the circumstances surrounding the acquisition of foreign exchange reserves by groups of countries, first over the next few years and then over the long term. It deals with the transmission process as it relates to non-oil developing countries before appraising the process by which other groups of countries acquire foreign exchange reserves. 1/

1. The external financing of non-oil developing countries

The projected reserve acquisition and current account deficits of non-oil developing countries will require financing of some SDR 75 billion in each of the next three years. Non-debt creating flows--primarily official transfers and net flows of direct investment--can be expected to cover about SDR 25 billion of this annual amount. 2/ Long-term borrowing from official sources and the use of Fund credit may furnish another SDR 30 billion in the coming year, though probably less in later years. Private financial institutions are therefore expected to extend net lending, both short-term and long-term, of about SDR 20 billion in 1984 and to provide perhaps slightly larger amounts in later years. Assuming that the other sources of financing are reasonably well assured, the first question to ask is whether there are any major difficulties connected with the provision of these credits from private sources.

The net size of the Eurocurrency market currently approaches SDR 1 trillion, with claims on banks located in developing countries 3/ and central banks (anywhere) accounting for one quarter of this net amount (SDR 250 billion). The annual average rate of growth of the (net) Eurocurrency market fell from 24 percent during the period 1973-81 to 8 percent in 1982. However, even if growth continued at last year's low rate, it could supply at least SDR 20 billion annually to banks in developing countries and to central banks over the next several years. Hence, if the central banks and banks located in non-oil developing countries could attract the lion's share of this type of credit flow, as

1/ Non-oil developing countries are likely to be most directly affected by disturbances in the transmission process because of the need to finance large current account deficits, which could remain about SDR 65 billion in 1983 and 1984 according to the latest World Economic Outlook (ID/83/5). By contrast, oil exporting countries are projected to be well on the way toward returning to current account surpluses by 1985.

2/ See ID/83/5, "World Economic Outlook - General Survey," Table 12.

3/ More precisely, in the reporting system of Morgan Guaranty, these are banks that have foreign currency liabilities and claims and are located in areas other than major European countries, the Bahamas, Bahrain, Cayman Islands, Netherlands Antilles, Panama, Canada, Japan, Hong Kong, and Singapore.

they did before 1982, these countries would be able to finance their reserve acquisition and current account deficits at the levels projected. ^{1/}

Recently, however, deterioration in the country-risk rating of non-oil developing countries--whether for causes rooted in the circumstances of particular countries or by contagion--has slowed net lending in some cases and cut it off entirely in others. Access to the capital markets has been diminished or made more costly, or both, not only for countries whose creditworthiness has been impaired as a result of inadequate domestic policies and of adverse external developments, but even for countries that are in a basically sustainable balance of payments position but share certain characteristics with less creditworthy countries. This experience shows that there can be abrupt changes in the normal pattern of transmission of funds through the international capital markets, and that the structural deficit areas in the developing world are particularly vulnerable in this respect. Although it is likely that these present difficulties will become less pressing as time progresses, it is by no means certain that they will have been entirely overcome by 1986.

Temporary disturbances aside, most non-oil developing countries have a long-term need to import capital. They are, and will continue to be, net debtors to the international credit markets. For this reason, any official external claims held by them, such as foreign exchange reserves, are normally dwarfed by official or publicly-guaranteed external liabilities. ^{2/} Under these circumstances, it would seem desirable for non-oil developing countries to be able to acquire at least part of the reserves needed, as the level of their international transactions grows, in some way other than through adding to their international debt. ^{3/} It is shown below that other groups of countries could also derive benefits from the alternative to the creation of foreign exchange reserves provided by SDR allocation.

2. Aspects of the supply of reserves in the present system

Countries can, and do, acquire foreign exchange reserves in different ways, depending on their circumstances, namely, (i) by buying them with domestic-currency claims, (ii) by earning them through a current account

^{1/} In addition, net foreign lending by national banks from domestic jurisdictions, as opposed to Euromarket lending activities, might in time revive.

^{2/} This was shown in "Considerations Relating to a Possible Proposal for an Allocation of SDRs in the Current Basic Period," SM/83/157, July 11, 1983, Table 2, p. 11.

^{3/} Gold revaluations or increases in the market price of gold are not likely to be of much help to most non-oil developing countries and are therefore ignored in the remainder of this section.

surplus or non-debt creating capital imports, or (iii) by borrowing them in international credit markets. These three processes carry different costs and risks, and the transmission of reserves between countries using these mechanisms is at times subject to various obstacles and inefficiencies. These aspects of the present reserve supply process will be discussed in this section.

(i) Many industrial countries normally acquire reserves through intervention purchases (in excess of intervention sales) of foreign currencies in the exchange markets. Net purchases ordinarily take place at times when the domestic currency is relatively strong; they are intended to prevent or moderate its appreciation in the market. Foreign exchange can also be purchased at other times in order to accumulate reserves, but then it would often have the effect of causing or exacerbating depreciation of the domestic currency, which may not be desired. This consequence would be absent, however, if simultaneous intervention purchases by two or several countries in their respective currencies were mutually offsetting. Major industrial countries could thus buy, or exchange, each others' currencies and thereby accumulate foreign exchange reserves without affecting exchange rates. For these countries, this process of reserve accumulation could be similar in some ways to SDR allocation. A number of industrial countries made provision for an exchange of currencies through a network of swap arrangements concluded in the early 1960s in amounts that grew to some \$30 billion in the 1980s. ^{1/} This option is not open to countries whose currencies are not extensively traded in international markets and do not have sufficiently secure short-term placement opportunities to qualify as reserve assets.

In practice, reserve accumulation by major industrial countries has mainly been a by-product of asymmetric intervention designed to affect exchange rates. The preferred reserve currency has been the U.S. dollar, but the United States has not normally acquired other currencies on any substantial scale. This has placed a constraint on the ability of industrial countries to accumulate reserves by investing in each others' currencies.

(ii) Countries in which the foreign exchange proceeds of a structural current account surplus accrue directly to the government--as in some oil exporting countries--are in a position to accumulate needed reserves simply by placing all or part of these foreign exchange earnings at deposit, or investing them in short-term government securities, denominated in a reserve currency. All the same, reserve accumulation uses resources that could have been employed for more productive investments at home or abroad if reserves could have been provided in other ways. In accumulating foreign exchange reserves, these countries, too, are thus incurring costs that are avoidable, provided the assumption is warranted

^{1/} The swap arrangements mentioned earlier were not counted as official reserves, although the claims resulting from their activation were so counted.

that there is a demand for owned reserves which does not have to be satisfied by earning them--that is to say that the demand for owned reserves is not basically mercantilistic and can be satisfied by SDR allocation.

(iii) Reserves can also be acquired by borrowing in international capital markets in excess of amounts needed to finance any current account deficit. Although the borrowed funds can be invested in short-term assets, this way of obtaining reserves is costly to the extent that interest rates are lower on the deposits or short-term investments held than on the loans obtained abroad, which are subject to maturity intermediation and country risk. Furthermore, the smooth functioning of this intermediation process may be interrupted by changes in international capital markets such as those mentioned earlier in this section. The capital-poorest countries, in particular, are exposed to higher costs and instability in international credit markets when they provide--as they must in the long run--for growing reserve holdings through borrowing in these markets.

Should SDR allocations be made, non-oil developing countries are not likely to be substantially less dependent on international credit markets or escape the foreign scrutiny, conditionality, and pressures to adjust that are imposed by international lenders merely by obtaining relief from a small part of their total need to borrow in those markets. In some cases adjustment, while no less rigorous, could become more orderly and more compatible with the maintenance of investments vital to the long-term future of a country. In addition, a more orderly adjustment process and reduced reliance on nonspontaneous lending achieved through SDR allocation could be beneficial to the lender as well as to the borrower in international capital markets: instability communicated from borrower to lender can constrain the ability of lending countries to pursue their national policy objectives in the area of money, credit, and prices.

3. Diversification aspects of SDR allocation

SDRs differ from foreign exchange reserve assets in that, as currency baskets, they are more diversified by currency than the foreign exchange holdings of most countries. Participation of SDRs in the normal growth of reserves therefore reduces the exchange valuation risk of holding reserve assets. Another important difference in the degree of diversification and risk lies on the liability side. Unlike foreign exchange reserves, SDRs are not claims on individual governments or banks and, therefore, are not subject to sovereign risk or default risk. Both of these aspects of diversification concern most official reserve holders, but especially countries that regard reserves primarily as a store of national wealth rather than as international transactions balances.

Issuers of reserve currencies, too, encounter certain difficulties if they are to provide indefinitely for the bulk of the growth in reserves. Governments that incur liabilities to foreign official holders, or find that banks are accepting such liabilities in domestic currency, have not, as a rule, welcomed having their financial exposure to foreign influences

and perceptions grow far beyond their own relative importance in international trade. Conversely, other countries may be concerned about the large weight of a reserve currency in world monetary and financial affairs compared with the weight of the issuing country in world output and trade. As an example of such disproportions, U.S. concern with external effects might be related mainly to the U.S. share in international trade, whereas the extent of U.S. policy repercussions on other countries could be closer to its much larger weight in international finance. ^{1/} Because international financial markets are integrated with domestic financial markets, particularly the market in dollars, other countries find themselves inordinately exposed to U.S. macroeconomic policies, with little operational ability either to affect those policies or to insulate themselves from any unwanted external effects, particularly on interest and exchange rates. SDR allocations, therefore, have been looked upon as a way to reduce the potential effects of disproportions and asymmetries, as well as the risks, involved in accumulating foreign exchange reserves.

4. Conclusion

Almost complete dependence on foreign exchange for the growth in international reserves would impose some costs and risks that are likely to increase in the long run if the discrepancy in reserve issuing countries between their economic and financial weights were to continue to grow. Although the nature of these costs and risks can differ between groups of countries, their incidence is global because maintaining the present degree of reliance on the U.S. dollar (supplemented by some other currencies) in international finance and reserves can become burdensome to all countries, including the United States. ^{2/} Insufficient diversification by currency, as well as between owned and borrowed reserves, and the disproportionate role of the dollar in international lending and in the major exchange markets could indicate a long-term global need to supplement the existing sources of reserve growth through SDR allocation.

^{1/} The U.S. shares in Fund quota and GNP of all member countries are both about one fifth, and its share in world imports is about one seventh. However, the share of the U.S. dollar in foreign exchange reserves is about two thirds, and in Eurocurrency assets and liabilities about four fifths.

^{2/} A U.S. participant at a recent (March 24-25, 1983) IMF conference commented: "If world reserve needs are going to continue being satisfied by the dollar (supplemented by some other currencies), while growing at a rate faster than the nominal growth rate of the U.S. economy, external dollar holdings sooner or later will surpass domestic holdings of dollar assets; and long before that time concerns about shifts in dollar holdings will place constraints on, and then perhaps dominate, U.S. monetary policy."

IV. Timing of SDR Allocations

The requirements under the Articles discussed in Section I above suggest that SDRs should be allocated rather evenly over time. The total amount allocated in the period of 14 years since the inception of allocations in 1970--some SDR 21 billion--was not supplied evenly, however. Three annual allocations of (about) SDR 3 billion each were followed by six years without allocations, by a further three annual allocations of SDR 4 billion each, and by two more years without allocations.

The amounts allocated were not so large, relative to flows of trade and capital, that the uneven pace of allocation could have had much effect on world economic stability. Nevertheless, to the extent that decisions on SDR allocation affect expectations, steadiness of the rate of allocation over time could be beneficial. It is equally important, of course, that allocation proceed at a pace that is appropriate for the long term. These two considerations taken together imply that the amount of allocations should, to the extent possible, be adjusted gradually to perceived changes in the long-term global need for reserve supplementation. Gradual adjustment in the rate of SDR allocation is especially indicated by the considerable uncertainty that attaches to any projection of long-term reserve developments and needs. Attempts at "fine tuning," i.e., adjusting the rate of SDR allocation over time to a precise path of needed reserve supplementation, are not likely to be generally fruitful.

A particular difficulty arises in the adjustment of the rate of allocation from zero to a positive amount, because such an adjustment--having a qualitative character--cannot easily be made to appear gradual. A restarting problem of this kind was faced in the decision to allocate SDRs in the final three years of the third basic period. A similar problem exists at present, since two years of the current basic period have passed without allocation. This problem would not have arisen if SDR allocations had been made steadily year after year, on however modest a scale would have been considered appropriate from one quinquennium to another. The dilemma of an "empty period" is that the prospect of positive allocation may raise concerns with respect to possible effects as an expansionary signal, while continued absence of allocations in a growing economy--also a signal--implies that there is thought to be no long-term global need whatever to supplement existing reserve assets, and in fact no need for SDR allocations in the long run. Restarting allocations from zero clearly involves a cost--except possibly in a period of severe deflationary pressures and falling national price levels--that would be absent or much less severe for any decision to adjust a modest rate of allocation to changing perceptions of long-term global needs. Moreover, restarting becomes more difficult the longer an empty period lasts, since the signaling effect of breaking a sequence of zero allocations becomes more pronounced as the sequence lengthens.

If the costs attributed to restarting allocations are judged to be so high, even under otherwise propitious conditions, as to outweigh the benefits expected from regular allocations, such a start-up investment

would seem difficult to justify at any time. The outcome of the assessment currently under way may therefore have long-term implications for the role of SDR allocations in the process of reserve growth.

V. Concluding Remarks

This paper has focused on long-term aspects of SDR allocation, in particular on the long-term need to supplement existing reserve assets and on the timing of SDR allocations over the long run.

Reserve holdings are expected to resume their normal growth as recovery of the world economy gets under way. Revised projections of the growth of reserves to 1986 have been provided on the basis of the most recent World Economic Outlook exercise. From year-end 1983 to year-end 1986, non-gold reserves are projected to grow by about SDR 115 billion, that is, by SDR 38 billion per year. All major country groups would participate in this increase over the three-year projection period, with the groups of industrial countries and oil exporting countries each expected to add nearly SDR 40 billion to their holdings and non-oil developing countries almost SDR 35 billion. By the end of 1986, only the reserve position of the last group of countries is likely to remain unusually tight. Thereafter, the growth of reserves would depend mainly on import price developments and volume growth, with reserve holdings normally growing less than in proportion to import volume in industrial and oil exporting countries but somewhat more than in proportion to import volume in non-oil developing countries as a group.

Major industrial countries can acquire needed reserves by judiciously purchasing each others' currencies in the exchange markets without unwanted long-term effects on exchange rates. Other industrial countries and some oil exporting countries are in a position to acquire reserves as a counterpart to current account surpluses or private capital imports. However, some countries in these groups and most non-oil developing countries must obtain reserves by borrowing in the capital markets. Borrowed reserves are subject to costs (the difference between interest rates on loans and deposits) and uncertainties (associated with the need for periodic refinancing) that do not attach to SDR holdings.

Without SDR allocation, reserve growth would chiefly take the form of deposits or short-term securities denominated in various national currencies. At present, U.S. dollar assets account for 60-70 percent of foreign exchange reserves (depending on how ECUs are counted), and an even larger share of the external liabilities of official borrowers is denominated in dollars. Deutsche mark, yen, Swiss franc, sterling, and ECU claims account for much of the remainder. The value of these reserves fluctuates with movements in exchange rates, and exchange markets can, in turn, be affected by changing tendencies in the portfolio composition by currency of public, as well as private, holders of foreign exchange balances.

In a reserve system based primarily on national currencies, developments and policies in the principal reserve centers have greater influence on the policies and market reactions in other countries than would appear desirable from the point of view of these countries and, indeed, from the point of view of the reserve centers themselves. Under the par value system, the role of reserve currencies was at first mitigated by a relatively more active role of gold, which provided an anchor to the system. When this anchor ceased to hold, the SDR was proposed to provide an element of stability and a means for international cooperation in the multicurrency system by providing reliable reserve growth in a form that would improve the composition of reserves. Subsequently, supplementing existing reserve assets was increasingly related to the need to avoid a progressive decline in the quality of the growing stock of reserve assets and to reduce the cost of acquiring reserves, rather than to a persistent insufficiency of their growth rate.

The provision in the Articles of Agreement on SDR allocation and the discussions leading to the adoption of that provision suggest the desirability of steady allocation over time at the rate appropriate under the criteria specified in the Articles. Gradual adjustment in consecutive basic periods of the rate of allocation to changes in the long-term global need for reserve supplementation is easier to achieve if the rate is not set at zero for an extended period--unless, of course, the long-term global need is in fact considered to be nil. If annual allocations have been absent for some time--at present, for two years--restarting them may impose an additional cost and require careful timing. Other things being equal, the cost may increase over time as the "empty period" lengthens.