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August 3, 1984

To: Members of the Executive Board
From: The Acting Secretary
Subject: Allocation of SDRs in the Fourth Basic Period

There is attached for consideration by the Executive Directors a paper on the allocation of SDRs in the fourth basic period, which has been tentatively scheduled for Executive Board discussion on Friday, August 31, 1984.

If Executive Directors have technical or factual questions relating to this paper prior to the Board discussion, they should contact Mr. Mathieson (ext. (5)7662).

Att: (1)

Other Distribution:
Department Heads

INTERNATIONAL MONETARY FUND

Allocation of SDRs in the Fourth Basic Period

Prepared by the Research Department

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

Approved by Wm. C. Hood

August 3, 1984

Discussions in the Executive Board of the issues associated with SDR allocation in the fourth basic period began some time before the last SDR allocation of the third basic period in January 1981 and have continued on a number of occasions. Recently, the Interim Committee noted in its Press Communique of April 12, 1984, that:

Most members of the Committee were convinced that there was increased evidence for an SDR allocation, pointing out that, in their view, an allocation in present circumstances would be in full conformity with the requirements of the Fund's Articles, and would strengthen the world economy and the international monetary system. Some other members of the Committee, however, continued to feel that a global liquidity shortage had not been demonstrated.

No conclusion was reached at this meeting, but it was agreed that the Executive Board should continue, before the next meeting of the Interim Committee, its urgent examination of the issues involved, and that the Managing Director should present a further report at the next meeting of the Committee on the outcome of the Executive Board's discussions.

This paper extends earlier work 1/ relating to SDR allocation during the fourth basic period and brings up to date the background material, including projections of economic developments and movements in international liquidity, that has been found to be relevant in previous discussions of this topic. There are four sections in the remainder of the paper. Section I deals with the requirements for an SDR allocation set out in the Articles of Agreement and examines the criteria for establishing the existence of a long-term global need for reserve supplementation. Section II reviews recent changes in economic and financial conditions that may have influenced the adequacy of reserves and international liquidity; this section also considers the likely growth in the long-term global demand for reserves during the fourth basic period. Section III is concerned with factors that help determine the appropriate size of SDR allocations, including the relationships linking SDR allocation with inflation and the international adjustment process. Section IV summarizes the arguments relating to SDR allocation in the fourth basic period.

I. Long-Term Global Reserve Needs

In decisions to allocate SDRs in accordance with the Articles of Agreement, the Fund must seek to meet the long-term global need for reserve supplementation in such a way as to promote the attainment of the Fund's purposes and avoid inflation and deflation. Article XVIII, Section 1(a) of the Articles of Agreement sets forth the criteria for the allocation of SDRs:

In all its decisions with respect to the allocation and cancellation of special drawing rights the Fund shall seek to meet the long-term

1/ The relevant papers are:

- SM/80/189 "Considerations Relating to the Size of SDR Allocations," July 25, 1980 (and Correction 1, August 13, 1980).
- SM/81/4 "Considerations Relating to the Size of SDR Allocations in the Fourth Basic Period," January 7, 1981 (and Correction 1, January 19, 1981).
- SM/81/74 "Further Considerations Relating to the Size of SDR Allocations in the Fourth Basic Period," April 1, 1981 (and Supplement 1, April 14, 1981).
- SM/83/157 "Considerations Relating to a Possible Proposal for an Allocation of SDRs in the Current Basic Period," July 11, 1983.
- SM/83/196 "Considerations Relating to the Long-Term Global Need to Supplement Existing Reserve Assets," August 26, 1983.
- SM/83/266 "Considerations Pertaining to the Allocation of SDRs," December 28, 1983 (and Supplement 1, January 20, 1984).
- DM/84/11 "Demand for International Reserves and Effects of Reserve Increases on the World Economy: An Annotated Bibliography," February 22, 1984.

global need, as and when it arises, to supplement existing reserve assets in such a 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.

Discussions on the occasion of drafting the first amendment of the Articles of Agreement dealing with SDR allocation provide clarification of the criteria listed in this provision. ^{1/} Subsequent discussions in the Executive Board have further clarified these concepts. Three elements in this provision have been identified as being of crucial importance. They are briefly reviewed in the remainder of this section.

First, the allocation of SDRs is to be decided in the light of the global need for reserve supplementation. The purpose of SDR allocation is not to meet every demand, or mere desire, for additional reserves on the part of individual member countries but, rather, to supply to all members an amount of supplementary reserves judged to be needed in circumstances envisaged. Reserve supplementation would presumably be judged to be "needed" if it could be expected, on balance, to improve world economic conditions. While the determination of the reserve needs of the world economy must necessarily involve assessments of the adequacy of the reserves of individual countries, the relevance of these assessments depends on the effects of the liquidity situation in individual countries on the world economy and the international monetary system. Reserves could be considered adequate if they developed in a manner consistent with the smooth functioning of the international monetary system in an environment of expanding world trade without persistent inflation or deflation. The demonstration of a global need does not require that every member country be shown to have a specific need.

Second, the allocation of SDRs must be directed toward satisfying the long-term need for reserve supplementation. Allocations were not intended to be used for "countercyclical" purposes or in attempts to achieve "fine-tuning" of world demand; they were instead envisaged as responding to underlying trends in the development of the world economy and the international monetary system. The normal five-year length of the basic period reflects this long-term emphasis. Within this longer-term framework, however, the Articles of Agreement permit allocations to take place at varying rates within a basic period, as well as between one basic period and another. While this flexibility allows some influence on the size of SDR allocations to be exerted by temporary circumstances, these are not meant to dominate the influence of the long-term global need for reserve supplementation.

Third, a number of more broadly defined objectives relating to the performance of the international monetary system and the world economy

^{1/} See SM/84/148, "Allocations of SDRs--Legislative History of the Concept of 'Global Need' to Supplement Existing Reserves," June 27, 1984.

must also be considered when examining the long-term global need for reserve supplementation. In its decisions on SDR allocation, the Fund is required to aim at avoiding inflation or deflation in the world economy. In addition, reserve supplementation must be consistent with the Fund's purposes, as given in Article I, including balanced growth of international trade, a stable system of exchange rates, and the avoidance of competitive exchange depreciation.

II. Growth of Reserves and International Liquidity

This section first reviews recent developments that have affected the growth in the demand for reserves and international liquidity in the fourth basic period. These developments include pronounced movements in the stock of international reserves, a significant reduction in the availability of international credit to many countries, and sharp changes in world trade and economic activity in the course of the world recession. The section concludes with an evaluation of the adequacy of current reserves and a projection of the likely growth in the global demand for reserves.

1. Movements in non-gold reserves

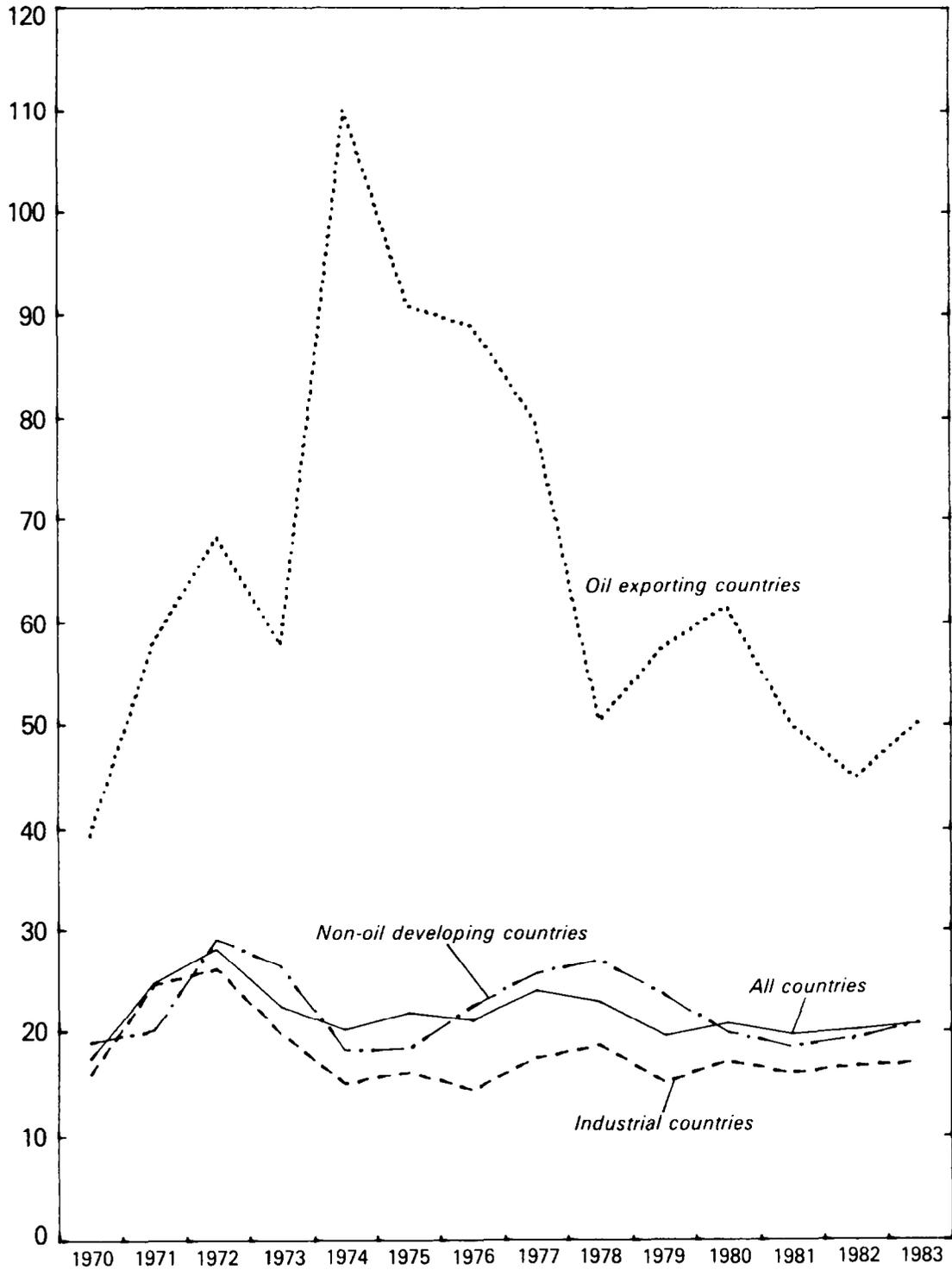
Non-gold reserves, which had grown at an average annual rate of 13 percent in the period 1974-81, fell by 2 percent in 1982 (Table 1). This marked the first decline in non-gold reserves since 1959. In 1983 and the first half of 1984, however, many countries rebuilt their reserve holdings; the stock of non-gold reserves expanded at an annual rate of 8 percent from the end of 1982 to the end of May 1984 (a total expansion of 12 percent). During this period, the non-gold reserves of industrial and non-oil developing countries grew at annual rates of 9 percent and 14 percent, respectively, while those of oil exporting countries declined at a rate of 3 percent.

The rebuilding of reserve holdings by many countries since 1982 has not significantly raised the ratio of non-gold reserves to imports (Table 1 and Chart 1). For all countries taken together, the ratio increased slightly, from 20 percent at the end of 1981 to 21 percent at the end of 1983. These ratios imply that recent reserve accumulation has roughly kept pace with the recovery of international trade, as measured by the value of imports.

Import payments not matched by exports--i.e., trade imbalances--are often used as a supplementary standard with which to compare reserve levels. Despite the recent accumulation of reserves, the ratio of non-gold reserves to aggregate trade imbalances for all countries has not increased materially (Table 1 and Chart 2). ^{1/} During the years 1981-83,

^{1/} Trade imbalances are taken to equal the sum of the absolute values of differences between exports and imports for the individual countries in each country group. Trade imbalances are used instead of the more comprehensive measure of current account imbalances in order to obtain the broadest possible coverage.

CHART 1
RATIO OF NON-GOLD RESERVES TO IMPORTS
(In percent)





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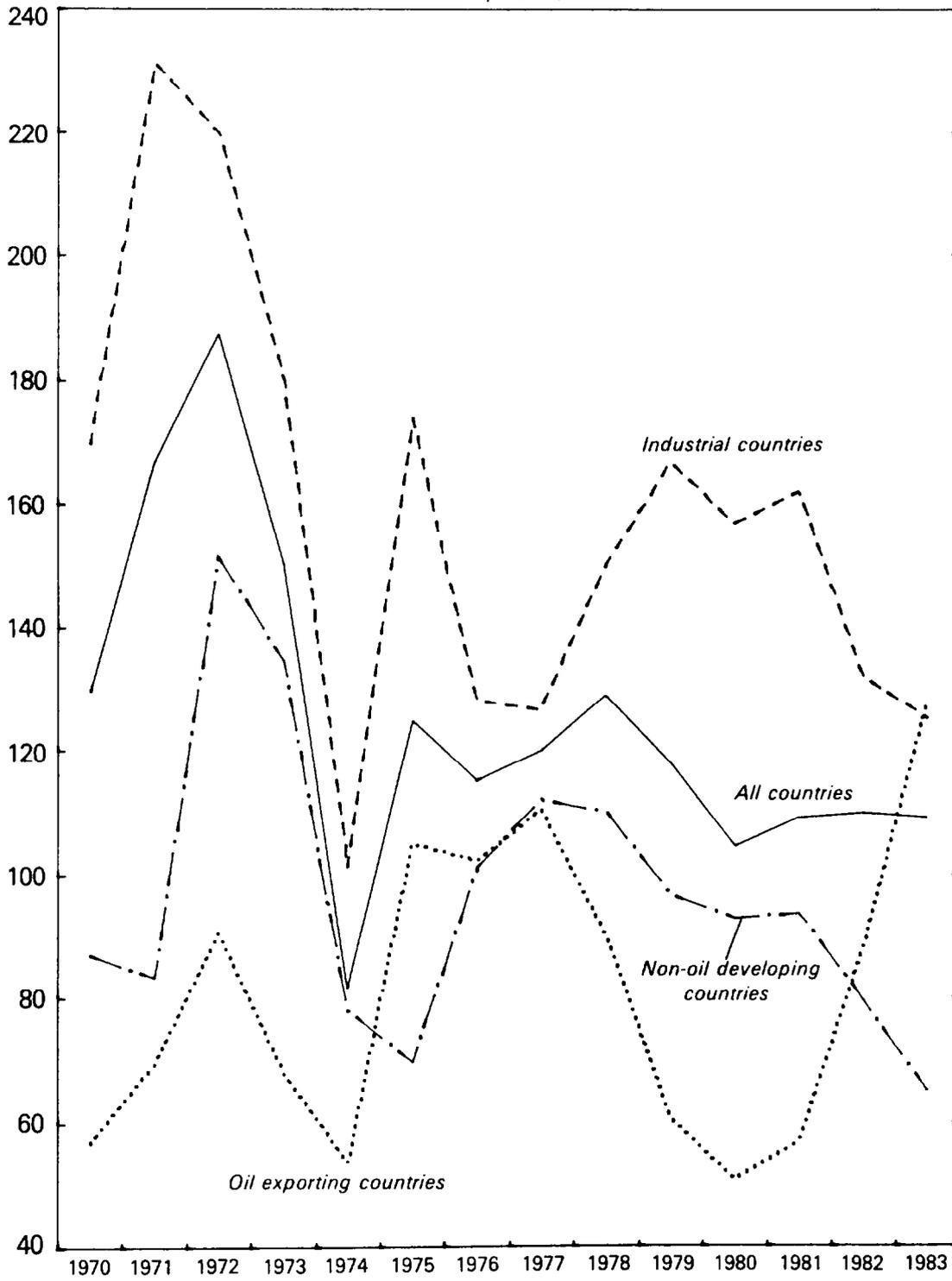
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CHART 2
RATIO OF NON-GOLD RESERVES TO
TRADE IMBALANCES

(In percent)



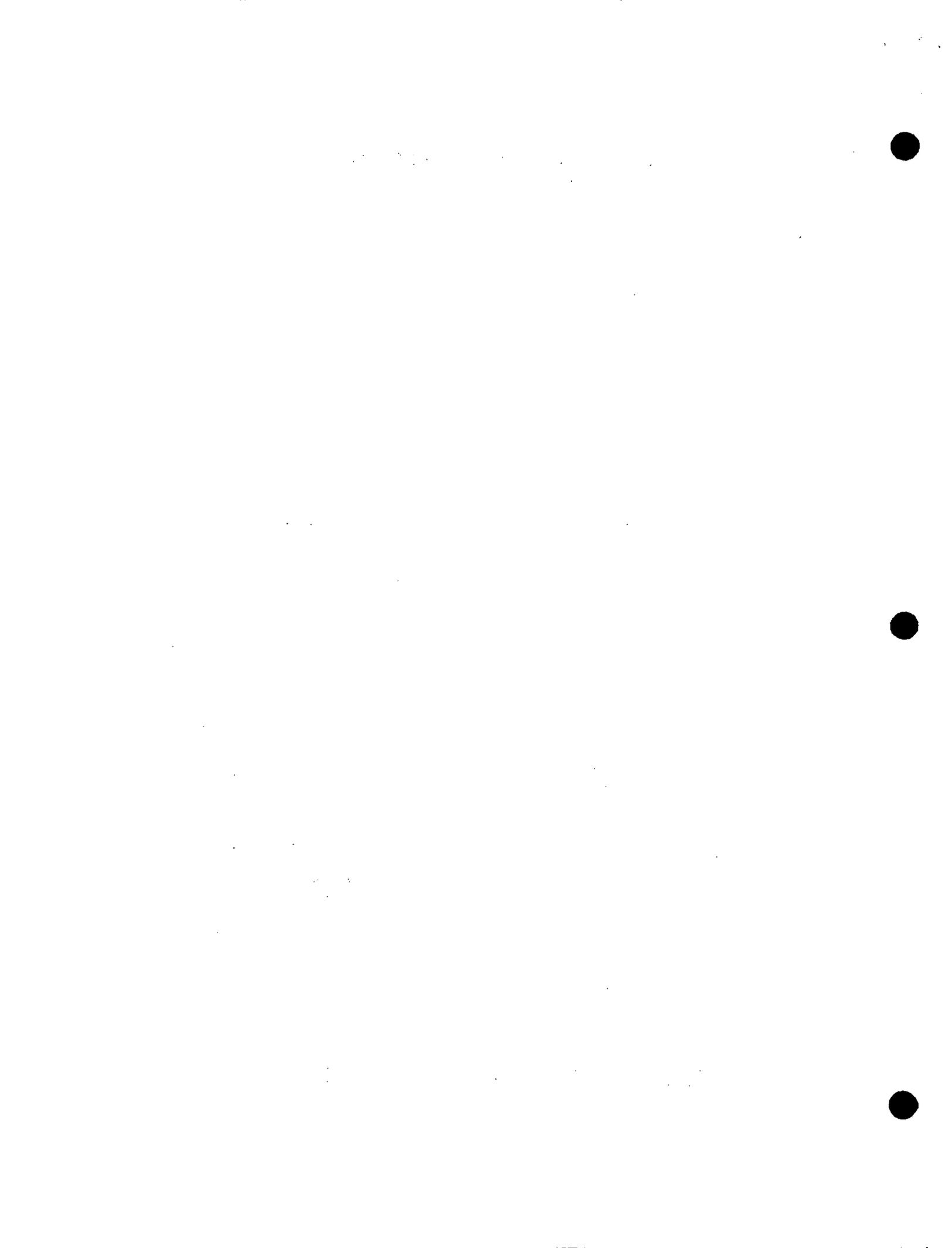


Table 1. Non-Gold Reserves of All Countries and Groups of Countries, and SDR Allocations and Holdings: Amounts and Ratios to Merchandise Imports and to Trade Imbalances, End of Years 1970-83 and End of May 1984

	Non-Gold Reserves				Cumulative SDR Allocations ^{1/}	Holdings of SDRs by Participants ^{1/}
	All countries	Industrial countries	Oil exporting countries	Non-oil developing countries		
(In billions of SDRs)						
<u>Amounts</u>						
1970	56.3	38.9	3.8	13.0	3.4	3.1
1971	87.7	65.7	6.6	14.8	6.4	5.9
1972	111.5	79.7	8.9	22.0	9.3	8.7
1973	117.7	77.8	10.8	28.2	9.3	8.8
1974	145.5	78.3	37.2	29.1	9.3	8.9
1975	160.1	83.6	47.1	28.5	9.3	8.8
1976	188.1	92.7	54.9	39.2	9.3	8.7
1977	227.9	118.9	61.0	47.0	9.3	8.1
1978	247.1	143.1	44.9	58.0	9.3	8.1
1979	274.1	153.2	55.0	64.8	13.3	12.5
1980	321.8	184.3	68.1	67.6	17.4	11.8
1981	336.7	185.1	74.1	71.3	21.4	16.4
1982	331.0	184.4	68.6	70.4	21.4	17.7
1983	363.6	204.9	67.7	79.7	21.4	14.4
May 1984	371.7	209.4	65.3	84.6	21.4	15.5
(In percent)						
<u>Ratios to imports ^{2/}</u>						
1970	17.4	16.0	39.4	19.0	1.1	1.0
1971	24.8	24.6	58.0	20.2	1.8	1.7
1972	28.2	26.2	68.3	29.1	2.4	2.2
1973	22.6	19.8	57.8	26.4	1.8	1.7
1974	20.2	15.0	110.0	18.2	1.3	1.2
1975	21.9	16.1	90.9	18.3	1.3	1.2
1976	21.1	14.3	88.9	22.5	1.0	1.0
1977	24.0	17.4	79.7	25.8	1.0	0.8
1978	22.9	18.7	50.4	27.1	0.9	0.8
1979	19.6	15.1	57.6	23.4	1.0	0.9
1980	20.9	17.2	61.5	19.9	1.1	0.8
1981	19.7	16.0	50.0	18.6	1.3	1.0
1982	20.2	16.7	44.8	19.4	1.3	1.1
1983	20.9	17.0	50.3	20.9	1.2	0.8
<u>Ratios to trade imbalances ^{3/}</u>						
1970	129.7	169.9	56.9	86.9	8.5	7.7
1971	166.9	231.2	69.5	83.3	13.1	12.0
1972	187.7	219.9	90.6	151.6	17.0	15.9
1973	150.5	180.2	68.0	134.5	13.1	12.4
1974	81.7	101.4	53.7	78.1	6.0	5.7
1975	125.0	174.0	105.1	69.7	8.2	7.8
1976	115.3	128.2	102.3	101.2	6.6	6.1
1977	120.0	126.6	110.5	112.1	5.6	4.9
1978	129.0	150.2	89.8	110.1	5.6	4.9
1979	117.9	166.9	60.5	96.8	6.6	6.2
1980	104.5	156.9	50.7	92.8	6.4	4.3
1981	109.1	162.1	57.0	93.7	7.9	6.1
1982	109.8	131.8	88.0	79.5	8.3	6.9
1983	109.1	125.2	128.1	65.1	7.7	5.2

^{1/} The ratios for cumulative SDR allocations and holdings of SDRs are calculated by using the imports and trade imbalances for all countries.

^{2/} The annual rate of imports in the fourth quarter is the divisor of the stock of reserves at year's end.

^{3/} Trade imbalances equal the sum of the absolute values of differences between exports and imports in the year considered for individual countries.

the ratio of non-gold reserves to trade imbalances for all countries has remained virtually constant at a lower level than that generally observed in the 1970s.

While imports and trade imbalances are proxies for trade-related transactions, it is often thought useful to relate reserve levels to some measure of international financial transactions. Since data on gross financial flows are not available for many countries, the stock of the total external debt or one of its components has been used as a measure of external financial transactions, reflecting a hypothesis that gross flows are roughly proportionate to the existing stock of liabilities. Recent reserve movements have had only a limited impact on the ratios of non-gold reserves to external debt to banks (Table 2). Despite some increase in that ratio for all non-oil developing countries in 1983, the ratios for the various groups of countries are still generally below their values at the end of the first half of 1981. Much of the recent increase in these ratios has been accounted for by the non-oil developing countries in Asia.

In evaluating recent reserve accumulation, it is important to note that much of the increase in non-gold reserves, measured in SDRs, has reflected changes in the SDR value of existing reserves as a result of exchange rate movements rather than additions to the stocks of various reserve assets. For example, about 40 percent of the increase in the SDR value of foreign exchange reserves in 1983 resulted from the appreciation of the U.S. dollar. ^{1/} Since the U.S. dollar has continued to appreciate during the first half of 1984, a portion of the rise in the SDR value of foreign exchange reserves in that period has again been accounted for by valuation effects, which cannot be expected to be a permanent source of international liquidity.

Another reason to believe that recent reserve movements may be an imperfect indication of changes in the need for reserves rests in the importance of access to capital markets as a source of international liquidity. The reduced access of many countries to international capital markets since 1981 has sharply curtailed the availability of borrowed reserves and has thereby diminished international liquidity. Moreover, it is not clear that market access will be restored quickly. In these circumstances, movements in the absolute level of reserves or the ratio of reserves to imports do not, by themselves, give a reliable indication of the adequacy of reserves or of international liquidity. While countries have been attempting to accumulate owned reserves through current account surpluses in order to offset the reduced availability of borrowed reserves, it has been difficult for many of these countries to do so, especially in a period of relatively slow growth in world trade.

^{1/} Data on these price and quantity changes in foreign exchange reserves are provided in Chapter 2 of the Annual Report.

Table 2. Ratio of Non-Gold Reserves to External Debt to Banks for Selected Groups of Non-Oil Developing Countries and Individual Countries, First Half 1980 to Second Half 1983

(In percent)

	Old Series 1/						New Series 2/							
	1980		1981		1982		1983		1981		1982		1983	
	1st half	2nd half	1st half	2nd half	1st half	2nd half	1st half	2nd half	1st half	1st half	2nd half	1st half	2nd half	
(a) Including main offshore centers 3/														
All countries	34	33	31	27	23	23	23	18	15	15	16	16		
Non-oil developing countries	21	20	16	16	14	13	14	12	10	10	11	11		
of which:														
Africa	19	16	14	13	11	10	10	12	11	10	10	11		
Asia	47	39	34	31	29	32	34	18	17	18	20	19		
Europe	11	19	17	16	12	13	12	12	9	10	9	11		
Middle East	62	54	48	44	36	41	40	19	16	18	17	15		
Western Hemisphere	13	12	9	9	8	6	6	8	6	5	5	5		
Argentina	51	35	18	14	13	11	14	14	13	11	14	5		
Brazil	14	13	12	13	12	7	7	11	10	6	5	6		
Mexico	7	7	6	7	3	1	4	5	2	1	3	5		
(b) Excluding main offshore centers 3/														
All countries	39	38	36	31	27	26	27	20	18	18	18	18		
Non-oil developing countries	31	32	25	25	22	21	22	19	16	16	16	18		
of which:														
Africa	24	21	18	16	14	12	12	16	14	13	12	14		
Asia	87	73	66	63	63	68	73	36	37	39	43	45		
Europe	11	19	17	16	12	13	12	12	9	10	9	11		
Middle East	101	86	86	73	63	61	59	35	31	28	29	29		
Western Hemisphere	23	24	17	18	14	11	12	16	11	9	9	9		

1/ External claims of banks in the BIS reporting area on the countries or groups of countries shown. The BIS reporting area comprises the Group of Ten countries; Austria, Denmark, Ireland, and Switzerland; and the offshore branches of U.S. banks in the Bahamas, Cayman Islands, Hong Kong, Panama, and Singapore. Unallocated external debt is not included in the calculation of the ratio for all countries, to make the lines comparable.

2/ These data differ from those described in footnote 1. The source of the interbank data is the regular reports of resident banks' external positions made for IFS purposes by the authorities of over 100 countries, while the nonbank debt to international banks in addition to the description in footnote 1 also includes obligations to deposit banks in Bahrain and to non-U.S. banks in Hong Kong and Singapore.

3/ The following offshore centers are included in (a) but excluded from (b):

Africa: Liberia

Asia: Hong Kong, Singapore

Middle East: Bahrain, Lebanon

Western Hemisphere: Bahamas, Cayman Islands, Netherlands Antilles, Panama.

Since the adequacy of reserves international liquidity cannot be quantified in a precise way, indirect evidence on the matter is useful. When international liquidity is inadequate, there is a tendency to make the maintenance, increase, or restoration of reserves an overriding objective of economic policy. Attempts to increase reserves could lead countries to adopt excessively restrictive policies to prevent the emergence of a payments deficit or to achieve a surplus. In this situation, symptoms of liquidity inadequacy would be increased trade and payments restrictions, sluggish economic growth and high unemployment, and falling international commodity prices. A number of developments during the period 1982 to mid-1984 could be interpreted as symptoms of reserve inadequacy. The intensity of the restrictions on imports (including growing protectionism) that are an aspect of the adjustment processes now under way in many countries may be motivated in part by reserve inadequacy. Growing arrears on external payments and the absence of any significant improvement in reserve holdings relative to short-term external debt could also point to an inadequacy of liquidity in the countries to which these observations apply. In the last weeks of 1983, 39 Fund members borrowed SDR 540 million from the Fund to pay their increased quota subscription under a facility available to members that did not have sufficient reserves for that purpose. While there is thus evidence of reserve inadequacy for some countries, there is little evidence of overabundance for other countries.

Interpreting these developments as indicators of liquidity inadequacy does not in any way deny that they may also be, in respect of particular countries, indicators of the inappropriateness of past policies that may have led to or exacerbated a loss of reserves and creditworthiness. The policies required to effect adjustments in these situations are not different from the policies that will assist in rebuilding reserves and restoring access to international credit on normal terms and conditions.

2. Growth in the long-term global need for reserves

Recent reserve movements and economic prospects imply a global need for reserves in the remainder of the fourth basic period. The relatively rapid growth in reserve holdings during the period since 1982 could be regarded as a response to this situation. In this subsection, an effort is made to gauge the magnitude of the global need for non-gold reserves in the balance of the fourth basic period.

One procedure for measuring the effective demand for reserves involves applying the average ratio of reserves to imports from a period with "normal" economic activity and financial market access to the level of imports during the period under consideration. In general, a "normal" period would be one involving reasonable access to international financial markets, growing world trade, and expanding non-inflationary activity in most regions of the world. No such ideal period has existed. During the 14 years 1970-83, the average value of the ratio was 21.7 percent. In this period, the reserve ratio for all countries (see Table 2 and Chart 1)

remained in a relatively narrow range. ^{1/} To produce the rough approximation sought in this subsection, the average value of the ratio in the period since 1970 will be used.

Any projection of the effective demand for reserves based on the use of average or "normal" ratios of reserves to imports reflects only the effects of the growth of world trade and does not incorporate the influence of a number of other potentially important factors. As already noted, many countries have experienced sharp reductions in their access to international financial markets and hence to borrowed reserves. Such a change in financial conditions is likely to increase the effective demand for total reserves, as well as the proportion of owned reserves in total reserves. Accordingly, calculations of the effective demand for reserves during the fourth basic period based on ratios of reserves to imports from "normal" periods are likely to yield estimates that are closer to the minimum rather than maximum level of the effective demand for reserves in the current environment.

The current World Economic Outlook (WEO) exercise implies a continuing recovery of the SDR value of world trade. There was no change in the SDR value of imports in 1982 and an increase of 1 percent in 1983. It is projected that the value of such trade will rise by 10 percent or more a year starting in 1984. ^{2/} If reserve holdings were to rise to a level that would re-establish the average reserve ratio for the period 1970-83 (21.7 percent), then non-gold reserves would total SDR 508 billion by the end of 1986. Since non-gold reserves had risen from SDR 337 billion at the beginning of the fourth basic period to SDR 364 billion at the end of 1983, they would have to rise by an additional SDR 144 billion up to the end of 1986 (an annual growth rate of approximately 12 percent from the end of 1983) to reach SDR 508 billion.

These considerations suggest that the overall demand for reserves is likely to expand throughout the fourth basic period as the level of international trade and financial market transactions continues to grow. To function smoothly, the international monetary system must efficiently satisfy this long-term rise in demand in order to avoid the effects of a global reserve shortage. This reserve increase could be generated through

^{1/} Almost all of the annual values of this ratio fall within one standard deviation of the average value in the period 1970-83.

^{2/} The percentage changes in the volume and SDR unit values of world trade are

Percentage Change in	1982	1983	1984	1985	1986 & beyond
Volume	-2.5	2.0	8.5	5.5	5.0
Unit value	2.5	-1.5	2.5	4.5	4.5
Total value	0.0	0.5	11.1	10.2	9.7

a number of channels including adjustments in current accounts, borrowing from international capital markets, changes in official intervention in foreign exchange markets, and SDR allocations. The considerations pertaining to the size of an SDR allocation are taken up in the next section.

III. Considerations Relating to the Size of SDR Allocations in the Fourth Basic Period

While the likely increase in the long-term global demand for reserves is one element in determining the scope for an SDR allocation, the size of such an allocation must be conditioned by possible adverse impacts on inflation, the international adjustment process, and the attainment of the Fund's general purposes. In addition, the size of an SDR allocation should reflect a judgment as to the appropriate order of magnitude of the ratio of SDRs to total non-gold reserves, having in mind that an allocation need not be ruled out simply because of an expectation that a global need would be satisfied by increases of reserves in other forms.

1. Growth in the real demand for reserves

One traditional way of approximating the appropriate size of an SDR allocation is to determine the increase in SDRs that would satisfy the trend growth in the real demand for non-gold reserves. Between the end of May 1984 (the date of the last available reserve figures) and the end of 1986, the volume of imports is expected to grow by some 15 percent according to the WEO. If reserves were to grow in this period at the same rate they would be some SDR 57 billion higher at the end of 1986 than at the end of May 1984. Thus an allocation of SDRs in each of the years 1985 and 1986 of SDR 29 billion would match the real growth of imports. If it were felt that increases in reserves at a rate not in excess of the rate of real imports would be inflationary, then it might be thought that annual allocations of, say, SDR 10 billion or less would be a conservative approach, and would make allowance for some useful increases in reserves in other forms. 1/

2. SDR allocation and inflation

In past discussions of SDR allocation, concern has been expressed about a potential inflationary effect, which would violate at least one of the criteria of Article XVIII, Section 1(a). In particular, it has been argued that an SDR allocation would give the wrong "signal" on

1/ One could also consider the level of SDR allocations that would be required to satisfy the real growth in the demand for reserves during a new five-year basic period starting on January 1, 1985. Since WEO projections imply an expansion of import volumes of more than one-third over the period May 1984 and the the end of 1989, allocations of SDR 25 billion would match the growth in the real demand for reserves.

inflation by indicating a relaxation of the general anti-inflation stance adopted by the authorities in many countries. Inflation in the major industrial countries has declined to an average rate of 5 percent in 1983 and is expected to fall to about 4 percent in 1984 on the basis of WEO projections. At the same time, inflation in developing countries was at 33 percent in 1983 but is projected to rise slightly to 36 percent in 1984. The question is: how large an effect on inflation in either the industrial or developing countries could an SDR allocation have in this situation? It should be noted, first, that an appropriate allocation of SDRs (which just satisfies the long-term global need for reserve supplementation) would not generate inflationary or deflationary pressures, since these reserves would be willingly held. Nonetheless, it is useful to consider what inflationary pressures would occur if significant transfers of SDRs were to take place. For the industrial countries, one of the key issues is whether any transfers of SDRs between industrial and developing countries would be allowed to push rates of monetary growth in the industrial countries above the target growth rate ranges established by the domestic monetary authorities. If the monetary aggregates in the industrial countries were maintained within their target ranges, there would be little inflationary potential if all or some of the SDRs allocated to developing countries were used to purchase goods in industrial countries. 1/

An allocation might also allow some developing countries to continue inflationary policies. For example, it has been argued that allocated SDRs might be used to offset the reserve losses associated with a balance of payments deficit and a high domestic rate of inflation generated by excessively expansionary domestic spending programs. The inflationary potential of an SDR allocation on developing countries could be measured in a number of ways, but one indicator is the increase in base money that could occur if developing countries fully monetized the SDRs they receive (i.e., if the government exchanged SDRs for domestic credit at the central bank). In examining this indicator, it is useful to consider the

1/ The largest inflationary impact would occur if the entire allocation received by developing countries were spent on goods in the industrial countries and the domestic monetary bases were allowed to expand in line with the SDR transfers. For example, with an allocation of SDR 10 billion, industrial countries would receive SDR 6.3 billion and developing countries would obtain SDR 3.7 billion. The monetary base in the industrial countries could thereby potentially rise by a maximum of SDR 10 billion if the SDRs received by the developing countries were transferred to the industrial countries and the authorities in the industrial countries allowed their monetary bases to expand by the sum of SDR allocations and transfers received. As of December 1983, the reserve bases of the industrial countries totaled SDR 561.7 billion. Thus, the total of the reserve bases of the industrial countries could increase by not more than 1.8 percent. Since these reserve bases have grown at an annual rate of approximately 5 percent during the last three years, a modest SDR allocation could at most have only a limited direct effect on monetary growth and inflation in the industrial countries.

countries with adjustment programs supported by Fund resources as well as all developing countries. As of the end of December 1983, for example, an SDR 10 billion allocation would have increased the monetary bases of both country groups by less than 1.5 percent. ^{1/} It would be difficult to sustain an excessive rate of monetary growth on the basis of an SDR allocation of this relative magnitude.

Even if the effects of an SDR allocation on monetary growth in industrial or developing countries are limited, an allocation might be interpreted as a relaxation of the general anti-inflation policy undertaken by many countries in recent years. An SDR allocation would have a sustained impact on expectations only if it led to significant changes in macroeconomic policies. As already noted, however, modest SDR allocations would be capable of having only a limited impact on the growth of monetary aggregates or, correspondingly, the financing of fiscal imbalances. These effects would also not take place if the authorities maintain the rates of monetary growth within their target ranges. Given the recent reductions in inflation in many countries (especially the industrial countries) and the commitments of the monetary authorities to noninflationary expansion of monetary aggregates, it is unlikely that an SDR allocation would have a major impact on expectations regarding inflation.

3. SDR allocation and adjustment

It has been argued that current balance of payment problems and reserve shortages reflect inappropriate macroeconomic policies followed in the past and that the essence of the solution of these problems lies in adjustment policies supported by conditional resources rather than unconditional allocations. It is acknowledged that all countries, including those receiving conditional liquidity to support their adjustment efforts, would want to increase their holdings of reserves as their international transactions expand. The question to be addressed is therefore whether there is a level of SDR allocation that could be undertaken which would not impair the commitment to adjustment that is required in the international monetary system in present circumstances.

The question is not capable of a precise answer, but an indication of the relative significance of allocations may be helpful in arriving at a judgement. An initial perspective is provided by the amount of SDR allocations in relation to conditional Fund credit that is currently made available. Access to conditional Fund resources can be measured in terms of commitments under stand-by arrangements and the extended Fund facility

^{1/} At the end of 1983, there were data on reserve money stocks for 24 out of 34 of the member countries with Fund programs and 76 developing countries. For an allocation of SDR 10 billion, these two groups would receive SDR 0.9 billion and SDR 2.4 billion, respectively. Since they had base money stocks of SDR 65.5 billion and SDR 188.1 billion, respectively, any allocations they received could potentially have increased their monetary bases by a maximum of 1.4 percent and 1.3 percent.

as a proportion of a country's Fund quota. For the 34 member countries with programs supported by Fund resources as of June 29, 1984, the commitment of Fund resources totaled SDR 13.7 billion (156 percent of their combined quotas) and varied from 44 percent to 331 percent of individual country quotas. Four of the 34 countries received commitments that were less than 50 percent of quotas (with an average ratio of 47 percent); 14 received commitments between 50 and 100 percent of quotas (with an average ratio of 74 percent); and 16 received commitments in excess of 100 percent of quota (with an average ratio of 175 percent). In comparison, an annual allocation of (say) SDR 10 billion, as discussed above when considering the relation of allocations to the growth in the volume of imports, would increase the SDRs of the group of countries with Fund programs by approximately SDR 1 billion (11 percent of their combined quotas). The liquidity supplied by such an allocation would be modest relative to the resources provided under conditional lending.

Before concluding that such an allocation would nonetheless be felt generally by countries under programs to the Fund to justify a relaxation of their adjustment effort, it is worth recalling that for these countries the availability of a substantial volume of new bank money hinges upon their willingness to maintain their adjustment efforts. Moreover, the willingness of creditors to make appropriate reschedulings hinges also upon continued progress with adjustment. In the face of these considerations, it may be thought that the threat to the adjustment effort of an allocation at the rate of less than SDR 10 billion per annum would not be great. Indeed, it could be argued that the offering of some very modest relief from the strain of adjustment, by permitting some accumulation of reserves outside of the adjustment process itself, would be regarded by some countries as an encouragement to press on with their efforts.

4. The role of the SDR in non-gold reserves

The importance of making the SDR the principal reserve asset is stated in Article VIII, Section 7 and Article XXII. While this objective does not require that SDRs constitute the largest proportion of non-gold reserves, it is difficult to reconcile this objective with an extended decline in the share of SDRs in non-gold reserves.

Until recently, one counterpart to the declining ratio of SDRs to non-gold reserves has been the increasing importance of borrowed reserves in satisfying the growth in the demand for reserves. During the 1970s, the maintenance of credit lines or actual borrowing in international markets often represented an efficient means of increasing a country's international liquidity or gross foreign exchange reserves. As already noted, however, disturbances in financial markets in 1981 and 1982 sharply reduced market access of many countries and thereby contributed to a decline in existing international liquidity and a sharp change in the prospects for the future availability of borrowed reserves. The 1981-82 experience suggests that, as the proportion of borrowed reserves in non-gold reserves expanded, the international monetary system became increasingly vulnerable to shocks in financial markets. In the current

situation, an SDR allocation would help not only to satisfy the long-term global need for reserve supplementation but also to lower the ratio of borrowed to total non-gold reserves and thereby reduce the vulnerability of the international monetary system to disturbances in financial markets.

Previous SDR allocations, measured both in absolute amounts and relative to the stock of non-gold reserves, are given in Table 3. Since 1970, SDR 21.4 billion have been allocated, with annual allocations occurring in 1970-72 and 1979-81. While the SDR allocations of the period 1970-72 were between 2.7 and 6.0 percent of the stock of non-gold reserves, the allocations of the 1979-81 period equaled 1.2 to 1.5 percent. Reflecting this uneven pattern of allocations, the ratio of cumulative SDR allocations to non-gold reserves reached a peak year-end value of 8.3 percent in 1972 and then declined to its lowest year-end value of 3.8 percent in 1978. The combination of SDR allocations in 1979-81 and a decline in foreign exchange reserves in 1982 raised this ratio to 6.5 percent at the end of 1982, but, by the end of 1983, the ratio had fallen to 5.9 percent. The evolution of the position of SDRs in non-gold reserves during the remainder of the fourth basic period will depend on the proportion of the growth in holdings of non-gold reserves supplied by SDR allocations.

Table 3. SDR Allocations and Cumulative SDRs Relative to Non-Gold Reserves, 1970-83

Basic Period		SDR Allocations	Cumulative SDR Allocations	
		(In billions of SDRs)	<u>(In percent of non-gold reserves at year-end for all countries)</u>	
1970	First	3.4	6.0	6.0
1971	First	3.0	3.4	7.3
1972	First	3.0	2.7	8.3
1973	Second	--	--	7.9
1974	Second	--	--	6.4
1975	Second	--	--	5.8
1976	Second	--	--	4.9
1977	Second	--	--	4.1
1978	Third	--	--	3.8
1979	Third	4.0	1.5	4.9
1980	Third	4.0	1.2	5.4
1981	Third	4.0	1.2	6.4
1982	Fourth	--	--	6.5
1983	Fourth	--	--	5.9

If holdings of non-gold reserves should rise to SDR 508 billion by the end of 1986 as implied by projected import growth, SDR allocations in 1985 and 1986 could play a role in satisfying this long-term growth (Table 4). For example, the ratio of SDRs to non-gold reserves at the end of 1983 (5.9 percent) would be maintained as reserves expanded only if there were annual allocations of SDR 4.3 billion in 1985 and 1986. In contrast, an allocation of SDR 10.4 billion would be required to raise the ratio of SDRs to non-gold reserves to its previous peak year-end value of 8.3 percent in 1972.

Table 4. SDR Allocation for the Fourth Basic Period and Ratio to Non-Gold Reserves ^{1/}

SDR Allocation, 1985-86		Cumulative SDR Allocation Relative to Non-Gold Reserves at Year-End 1986
Annual amount	Total amount	
(In billions of SDRs)		(In percent)
3.0	6.0	5.4
5.0	10.0	6.2
7.0	14.0	7.0
10.0	20.0	8.1
12.0	24.0	8.9

^{1/} The fourth basic period is assumed to be of five years' duration ending on December 31, 1986, with allocations only in 1985 and 1986.

IV. Summary

The continuing expansion of world trade and activity that is expected during the next several years implies a growing long-term global need for reserves. SDR allocations could play a role in satisfying this growing need. Although this need could be satisfied through the usual channels, including borrowing by some countries in international capital markets, an SDR allocation to provide part of the required increase could help the functioning of the international economy. It would not be an inflationary threat, and rather than impairing the commitment to adjustment policies, it might well strengthen that commitment. By modestly reducing the importance of borrowed reserves in the system, the vulnerability of the system to financial market disturbances would be reduced. An allocation would also further the objective of enhancing the position of the SDR relative to other non-gold reserves.