7#4 ✓ UFR
5/12

DOCUMENT OF INTERNATIONAL MONETARY FUND AND NOT FOR PUBLIC USE

NICOLETOPOULOS, GEORGE
ROOM B 313 11

EB/CQuota/81/3
Revision 1

May 12, 1982

To: Members of the Committee of the Whole on Review of Quotas

From: The Acting Secretary

Subject: <u>The Size of the Fund in the 1980s - Revision</u>

The attached revision of EB/CQuota/81/3, which was first issued on December 2, 1981, has been prepared in response to the discussion at meetings numbered 81/5 through 81/8 of the Committee of the Whole on Review of Quotas on December 18 and 21, 1981, and is circulated for information of the members of the Committee. The revision is chiefly statistical, including emendation of the conceptual basis and correction as well as updating of the historical data base.

Att: (1)

Other Distribution:
Department Heads

INTERNATIONAL MONETARY FUND

The Size of the Fund in the 1980s

Prepared by the Research Department

(In consultation with other departments)

Approved by Wm. C. Hood

May 11, 1982

Contents | Page

I. Introduction

This paper examines the factors that must be evaluated in forming a view on the appropriate size of the Fund in the 1980s. Its most immediate relevance is to the decision to be taken on the magnitude of the next increase in Fund quotas. The concept of the size of the Fund that is appropriate in present circumstances is, however, broader than the aggregate of members' quotas. The Fund performs two principal financial functions: it makes resources available to assist members in financing temporary balance of payments deficits and it provides assets to be held in members' reserves. The size of the Fund--that is, its capacity to perform these functions as needed--depends mainly on aggregate quotas but also to a certain extent on a number of other elements, most prominently SDR allocations and arrangements that the Fund may make from time to time for securing additional resources through borrowing. It is the aim of this paper to assess the increase in total Fund quotas that is appropriate in the light of expected circumstances within a framework containing all major elements influencing the Fund's capacity to provide these services to the membership.

The distribution of quotas among member countries is dealt with in other papers, some of which have already been discussed by the Executive Board, and will not be considered in this paper. 1/ It is true that the distribution of a given total of quotas among members differing in balance of payments performance and reserve behavior can influence the overall capacity of the Fund to provide assistance to members. Nevertheless, moderate changes in this distribution are unlikely to affect the analysis presented in this paper to any substantial degree.

The study on "The Evolving Role of the SDR in the International Monetary System," which is in preparation, is an important companion piece to the present paper in that it, too, looks forward to the requirements of the 1980s and the responses that the Fund can make. Moreover, the forthcoming discussions of Executive Directors on that topic may affect the analysis contained in this paper: the future evolution of the SDR could clearly have material effects on the manner in which the Fund performs its financial functions. The present paper does not, however, anticipate these discussions and is based on the existing SDR system, as well as on the existing functioning of the Fund's General Department. 2/

After the presentation of an outline of the approach followed in this paper (Section II), the historical evolution of the size of the Fund is traced (Section III). This evolution is then related to the growth of

1/ SM/81/151, "Eighth General Review of Quotas - Quota Calculations," (7/2/81) and SM/81/151, Sup. 1 (10/13/81); EB/CQuota/81/2, "Variability in the Quota Formulas," (8/11/81); and EB/CQuota/82/3, "Considerations Relating to the Combination of General and Selective Quota Increases," (3/19/82).

2/ In particular, no account is taken of the possibility that, under some future change in the Articles, SDRs could be issued to finance the operations of the General Department, in whole or in part.

relevant economic and financial aggregates (Section IV). Projections of some of these aggregates to 1985 and 1990 form the background against which the size of the Fund appropriate for the decade of the 1980s is considered (Section V). Finally (in Section VI), issues for discussion are reviewed.

II. Approach Taken in This Paper

In past discussions, "the size of the Fund" was generally taken to mean the total of members' quotas. The size of the Fund in that sense has grown, through the expansion of the Fund's membership as well as through general and special quota increases, from some SDR 8 billion at the commencement of the Fund's operation in 1947 to SDR 61 billion at present.

This traditional concept of the size of the Fund was not, of course, intended to measure the actual assistance provided to members at a given time, which would depend inter alia on world economic conditions, on the circumstances of individual members, and on their inclination to enter into Fund programs. While the concept evidently related more nearly to the potential contribution that the Fund could make, it was also clear that the total of members' quotas exceeded the maximum balance of payments assistance that could be extended from the Fund's own resources, since all members could not simultaneously purchase the currencies of other members from the Fund.

A more serious difficulty with the quota total as a measure of the size of the Fund is that it leaves out of account the potential contribution to the performance of the Fund's financial functions of resources available to the Fund through borrowing arrangements as well as of the entire Special Drawing Rights Department, not to mention certain other financial developments such as the establishment of the Trust Fund. 1/ As regards Fund-related balance of payments financing, members have been able to rely on each, or on a combination, of the following: drawings of SDRs or currencies of other members, which may have been subscribed to or borrowed by the Fund; use of SDRs, which may have been allocated or acquired in other ways; and, for some members in recent years, Trust Fund loans. Again, the Fund-related reserve assets that countries hold consist of SDRs, short-term loan claims, and reserve positions in the Fund, with the last arising through a member's subscription in the form of reserve assets, through the drawing of a member's subscribed currency by other members, or through Fund borrowing. Accordingly, any measure of the size of the Fund, whether it is oriented toward the balance of payments financing function or toward the provision of reserve assets, must combine in a suitable way information relating to quota resources, arrangements for Fund borrowing, other resource contributions by members, and SDR allocations and holdings.

1/ The Trust Fund was established in May 1976. Its final loan disbursements were made in March 1981.

The various ways in which balance of payments finance can be made available to members generally differ in their contribution to the other financial function of the Fund, namely, to the provision of reserve assets.1/ For instance, the use of borrowed resources (and ordinarily also the use of quota resources) in Fund drawings adds equal amounts to Fund-related balance of payments finance and to Fund-related reserve assets. Allocation of SDRs, in contrast, adds less to potential balance of payments finance than to reserves, since all members cannot ordinarily use their SDR allocations at the same time. These differences offer, in principle, the possibility of simultaneously achieving separate objectives with respect to the Fund's contribution to balance of payments financing and to the provision of reserve assets by varying the rates of quota increases, borrowing, and SDR allocation (or cancellation).

Decisions on the use of these alternative ways of increasing the Fund's financial role in line with the growth of the world economy are, of course, also guided by other important considerations, prominently by the conditionality under which resources are made available to members. Allocated SDRs are available to members without policy conditions, while resources stemming from quota subscriptions or Fund borrowing are made available under varying degrees of conditionality depending on the policies or facilities under which the drawings are made, from the virtually unconditional drawings against reserve positions to the full elaboration of stabilization programs typically associated with drawings in the upper credit tranches.

The approach taken in this paper emphasizes the interdependence--although by no means the interchangeability--of decisions with respect to quota increases, borrowing, and SDR allocation in meeting the Fund's principal financial objectives and, indeed, the interdependence of these objectives themselves. In decisions on the use of quota resources and Fund borrowing, priority has ordinarily been given to members' need for finance rather than their need for reserves. This has been especially true in the recent past, when the Fund greatly expanded its lending facilities in response to the emergence of large payments imbalances, without any generally recognized need to accelerate the provision of Fund-related reserve assets. Of course, the Fund may not always maintain this priority. If Fund-related reserves were the fulcrum upon which members' money supplies were levered, it would be unwise to let the creation of such reserves be determined by the amount of balance of payments financing sought by members from the Fund. If the SDR had become the principal reserve asset of the system, and countries were responsive in managing their domestic money supplies to changes in their reserve positions, it would be necessary to give greater weight to the

1/ When reference is made in this paper to the Fund providing balance of payments finance or reserves to members, it is not implied that these provisions necessarily result in net additions to the total amounts of finance or reserves available to members.

reserve creation involved in the Fund's decisions to provide finance to members. In this paper, however, which looks no further ahead than the period during which the Fund may expect to operate on the basis of the quotas resulting from the Eighth Review, the presumption is maintained that in the operations of the General Department primary emphasis will be placed on providing finance rather than reserves. Nevertheless, the paper will also analyze the effects of alternative approaches to providing the needed amount of finance on the volume and distribution of Fund-related reserves.

As regards the division of the task of providing finance to members between the General Department and the SDR Department, the guiding consideration--conditionality--has been extensively discussed in the past. The lending operations of the General Department provide for the most part conditional resources, i.e., resources that are made available in support of specific adjustment programs, whereas SDR allocations may be used by members to finance payments deficits without adhering to policy conditions. For these reasons, it is generally considered that a growing need for finance should be met by augmenting the resources of the General Department rather than by SDR allocation. The Fund's lending programs promote balance of payments adjustment and thereby help to constrain the future growth of members' need for finance. This principally self-limiting character of conditional lending is seen to justify a full response in securing the necessary resources for meeting an existing or emerging global need for finance.

The question of the appropriate balance between the principal sources of funds for the provision of finance to members--quota increases and borrowing--has also been widely discussed, both by Governors at the Fund's last Annual Meeting and by Executive Directors at meetings of the Board on various pertinent subjects and of the Committee of the Whole on the Eighth General Review of Quotas. Strong emphasis was given in these fora to the use of quota increases rather than borrowed funds in securing resources for the Fund's lending operations. It will be assumed in this paper that this view will prevail throughout the quota negotiations and that quotas will be determined in the light of that preference. The implications of some variation in this degree of emphasis will be discussed in the latter part of the paper.

Since allocated SDRs, as a reserve asset, may be used at the discretion of the holder to provide unconditional balance of payments finance, SDR allocations do not by themselves promote balance of payments adjustment. According to the Articles of Agreement, as well as for the reason just mentioned, SDRs are allocated in response to a global need to supplement existing reserve assets rather than for the express purpose of meeting a need for finance. Nevertheless, just as lending to members incidentally generates Fund-related reserve assets, so SDR allocations also provide potential finance to members. These relations must be taken into account in assessing the prospective needs for finance and for supplementing reserve assets, as is done in Section V of the paper.

III. Measuring the Size of the Fund

Through a variety of financial programs and facilities, the Fund contributes to the means available to members in a weak external position to finance deficits temporarily through the use of resources that they have not previously earned and simultaneously enables members with a sufficiently strong balance of payments and reserve position to obtain liquid international claims (reserve assets), instead of claims on deficit countries, in exchange for the resources made available by them. The total amount of resources that has actually been transferred in this way from some members to others through the agency of the Fund will here be called "use of the Fund." 1/

The resources provided to members by, or through, the Fund derive from a number of sources. Those provided by the Fund's General Department or through the Trust Fund stem mainly from members' quota subscriptions (in the form of currencies, gold, and SDRs) and from the proceeds of borrowing by the Fund. Resources transferred through the SDR system are provided by members accepting SDRs beyond their allocations and by other authorized holders of SDRs, as well as by the General Department of the Fund. It must be stressed that the present economic analysis leaves out of account certain legal distinctions that are important in other contexts, for instance, the difference between assets to which the Fund has acquired title and those that it merely administers, or that between claims on the Fund itself and claims on others resulting from transactions arranged through the Fund. As used here, "use of the Fund" is intended simply to denote Fund involvement in the transfer of resources covered under that heading, without any indication as to whether the Fund is acting as principal, trustee, or in some other capacity. 2/

The extent to which the Fund provides reserve assets to members is related to the use of the Fund. It is measured by the total of "Fund-related reserve assets," which consist of countries' SDR holdings, the reserve tranche purchases that members can make, and lending by members or other countries to the Fund that is readily repayable or transferable. 3/

The size of the Fund as a financial entity can be thought of as the maximum exercise of its financial functions that is possible with given quotas, borrowing arrangements, SDR allocations, and other resources

---

1/ A small part of the resources so transferred stems from lending to the Fund by Switzerland and from holdings of SDRs by "other holders" (nonmembers).

2/ The conversion of reserve positions in the Fund to other reserve assets, and vice versa, which does not involve any net transfer of resources, is not construed as a use of the Fund.

3/ In the statistics on official reserves in International Financial Statistics, short-term lending under the policy of enlarged access to Fund resources (EAR) is included with foreign exchange, while other lending and reserve tranche purchases that can be made comprise "reserve positions in the Fund."

contributed by members for particular purposes. Since the provision of balance of payments finance is emphasized in this paper, the size of the Fund will be measured by the maximum amount of resources that could be made available to members through Fund policies and facilities. This concept can be supplemented by a measure of the maximum amounts of Fund-related reserve assets that could be provided to members on the basis of the available resources. The actual use of the Fund and the actual holdings of Fund-related reserve assets are likely to fluctuate with world economic conditions, the size and distribution of payments imbalances, and various other ephemeral circumstances. By contrast, the evolution of the resources potentially available to members through the Fund, i.e., the size of the Fund, is not influenced by these variations. The remainder of this section will first present the historical record of the use of the Fund and then trace the evolution of the size of the Fund.

Use of the Fund, 1950-81

The use of the Fund by its members as of the end of 1981 and the sources of this financial support are illustrated in Table 1, which represents a financial statement for the Fund membership as a whole. 1/ It is convenient to begin with the "uses" side of Table 1, since this table was constructed by first identifying the various uses of Fund-related resources by members and then, as a second step, ascertaining their sources.

Most types of uses listed in the table are largely self-explanatory. The use of Fund credit (item B.1) is a familiar concept that measures the amount of reserve assets that have been made available to members and have not yet been returned to the Fund. With respect to Trust Fund loans (item B.3), it may be noted that the resources lent are not actually owned by the Fund but are administered by it. The use of SDRs shown in the table (item B.2), however, needs a word of explanation; it is the amount by which the holdings of some members are below their cumulative allocations. One purpose for which SDRs were used by these members having SDR holdings below allocations was for subscription payments to the Fund, chiefly in December 1980, when such payments are estimated to have increased the amount by which SDR holdings were below cumulative allocations by some SDR 3 billion. Some of these subscription payments established or increased a reserve position in the Fund, 2/ while others reduced the

1/ Some items that are small in size, such as the subsidy accounts, have been omitted to simplify the presentation.

2/ The exclusion of SDR subscription payments having that effect would not be warranted, even though the increase in the use of the Fund is matched by an increase in reserve positions in the Fund, because the alternative to using SDRs from holdings to make these subscription payments would be using other assets to acquire the SDRs needed for that purpose. A reserve position in the Fund is an asset that a member may acquire through a quota subscription in SDRs. A reduction of SDR holdings below cumulative allocation to finance such an acquisition, just as the acquisition of foreign exchange for SDRs, is counted as a use of SDRs.

Table 1. Sources and Uses of Resources Provided by or Through the Fund, December 31, 1981 1/

(In billions of SDRs)

A. Sources		B. Uses	
1. Fund resources applied 2/	13.4	1. Use of Fund credit 2/	13.4
a. Owned resources 3/	7.0	a. Low-conditionality facilities	4.9
		(i) Compensatory financing facility	(3.3)
b. Borrowed resources	6.4	(ii) Buffer stock facility	(—)
(i) General arrangements to borrow (GAB)	(0.8)	(iii) Oil facilities	(0.9)
(ii) Oil facilities	(0.9)	(iv) Other drawings not subject to upper-credit-tranche conditionality	(0.7)
(iii) Supplementary financing facility (SFF)	(3.6)	b. Higher-conditionality facilities	8.4
(iv) Enlarged access policy (EAR)	(1.1)	(i) Upper-credit-tranche drawings	(5.3)
		(ii) Extended Fund facility	(3.1)
2. SDR holdings above allocations	6.6	2. Use of SDRs 4/	6.6
a. Countries	1.6		
b. General Resources Account (GRA)	5.0		
Total allocations	(21.4)		
Less: Countries' holdings	(16.4)		
3. Trust Fund resources	3.0	3. Trust Fund loans	3.0
Total sources	23.1	Total "use of the Fund" 5/	23.1

1/ Details may not add to totals because of rounding.

2/ "Use of Fund credit" is the Fund's term for assets that would more conventionally be labeled "loans." All other Fund assets have been combined with its liabilities, and the resulting net liabilities are shown as "Fund resources applied." The following statement presents the transactions of the General Resources Account in a format that maintains the usual distinction between liabilities and assets; figures are as of December 31, 1981 and are expressed in billions of SDRs:

Sources of Fund resources (liability items)		Disposition of Fund resources (asset items)	
Reserve tranche positions *	15.1	Loans ("use of Fund credit")	13.4
Borrowing	6.4	Assets on hand	9.0
Short-term EAR borrowing	(0.1)	SDRs	(5.0)
Other *	(6.3)	Gold	(3.6)
Retained earnings (cash basis)	1.0	Borrowed resources held in suspense	(0.4)
Total sources **	22.4	Total disposition **	22.4

* Reserve tranche positions and "other" borrowing comprise reserve positions in the Fund.
** Currencies subscribed by their issuers but not presently being used for loans are omitted from both sources and disposition. Such currencies (SDR 45.6 billion), together with reserve tranche positions, are the counterpart of the Fund's capital, which is equal to quotas.

3/ Comprises reserve tranche positions and retained earnings, net of assets on hand; see the tabulation in footnote 2.

4/ Use of SDRs is defined analogously to use of resources of the General Department, i.e., the shortfall of SDR holdings below cumulative allocations for those members that have such a shortfall.

5/ Does not include reserve tranche purchases, which are accounted for instead as a reduction in reserve tranche positions; see the tabulation in footnote 2.

use of Fund credit. In the latter case, the entry in item B.2 is offset by a negative entry in item B.1, and thus total "use of the Fund" is not increased by the full amount of the subscriptions; the amount of this offset in December 1980 is estimated to have been in the order of one half billion SDRs.

As regards the sources of funds used by members, all of the resources of the General Department of the Fund stem from the capital subscribed to it and from its retained earnings, supplemented by resources that the Fund has borrowed (item A.1). The Fund's financial assets are mostly fungible, and indeed the great majority of transactions and operations take the form of an exchange of one asset for another; for example, drawings on the Fund involve the purchase by a member with its own currency of SDRs or the currencies of other members held by the Fund. For this reason, it is not possible to identify the financing of the use of Fund credit with specific assets that were available to the Fund, except that resources derived from borrowing have been employed in full.

Part of the use of SDRs identified on the "uses" side of Table 1 is financed through the holdings by some members in excess of allocations and by holdings of "other holders" of SDRs (item A.2.a). 1/ The remainder, which is at present the largest part, is financed by SDR holdings of the General Resources Account (shown under item A.2.b).

The resources of the Trust Fund (item A.3) have been contributed by members in connection with the program of sale of part of the Fund's gold and through other contributions or have been earned on the Trust Fund's investments. Practically the entire amount of these resources entrusted to the Fund for administration has been used to make the Trust Fund loans shown in item B.3.

Altogether, resources totaling about SDR 23 billion were provided by or through the Fund as of the end of 1981--well over one half in the form of Fund credit and almost one third as use of SDRs. A little less than one third of the total amount stemmed from assets owned by the Fund, and an additional portion of one quarter represented resources borrowed by the Fund for relending to members. The remaining sources were the holdings of SDRs above allocations by participants, other holders, and the Fund itself and the contributions to, and earnings of, the Trust Fund.

The evolution of the use of the Fund since 1950 is shown in Table 2. 2/ Total use has risen rapidly in the last decade. The total of resources provided to members through the Fund rose sixfold from the end of 1970 to the end of 1981. Since the mid-1970s, use of borrowed resources has made

---

1/ Holdings of "other holders" as of December 31, 1981, at SDR 3 million, were too small to show up in the rounded figures of Table 1.

2/ A historical series covering those years from 1950 on that do not appear in Table 2 may be found in Table 11 at the end of the paper. That table also shows other principal series for each year, 1950-81.

Table 2. Sources and Uses of Resources Provided by or Through the Fund, End of Selected Years, 1950-81 1/

(In billions of SDRs)

	1950	1960	1970	1976	1977	1978	1979	1980	1981
Total sources = total "use of the Fund"	0.2	0.4	3.9	15.3	16.0	14.3	12.7	18.2	23.1
A. Sources									
1. Fund resources applied	0.2	0.4	3.2	12.6	13.1	10.3	8.0	8.6	13.4
a. Owned resources	(0.2)	(0.4)	(2.5)	(5.9)	(4.9)	(3.9)	(4.1)	(4.3)	(7.0)
b. Borrowed resources	(--)	(--)	(0.7)	(6.7)	(8.2)	(6.4)	(3.9)	(4.2)	(6.4)
2. SDR holdings above allocations	--	--	0.7	2.7	2.7	3.2	3.3	7.1	6.6
a. Countries	(--)	(--)	(0.4)	(2.0)	(1.5)	(2.0)	(2.4)	(1.5)	(1.6)
b. General Resources Account	(--)	(--)	(0.3)	(0.7)	(1.2)	(1.2)	(0.9)	(5.6)	(5.0)
3. Trust Fund resources	--	--	--	--	0.2	0.8	1.4	2.6	3.0
B. Uses									
1. Use of Fund credit 2/	0.2	0.4	3.2	12.6	13.1	10.3	8.0	8.6	13.4
a. Low conditionality	(--)3/	(--)3/	(0.1)3/	(10.9)	(9.9)	(8.4)	(6.2)	(4.9)	(4.9)
b. Higher conditionality	(0.2)3/	(0.4)3/	(2.9)3/	(1.7)	(3.2)	(1.8)	(1.8)	(3.7)	(8.4)
2. Use of SDRs	--	--	0.7	2.7	2.7	3.2	3.3	7.1	6.6
3. Trust Fund loans	--	--	--	--	0.2	0.8	1.4	2.6	3.0
Memorandum: Supply of Fund-related reserves	1.7	3.6	10.8	26.4	26.2	22.9	24.2	28.6	37.7
SDR holdings	(--)	(--)	(3.1)	(8.7)	(8.1)	(8.1)	(12.5)	(11.8)	(16.4)
Reserve positions in the Fund	(1.7)	(3.6)	(7.7)	(17.7)	(18.1)	(14.8)	(11.8)	(16.8)	(21.3)
Of which									
Reserve tranche positions 4/	(1.7)	(3.6)	(7.0)	(11.0)	(9.9)	(8.4)	(7.9)	(12.6)	(15.0)
Lending to the Fund 5/	(--)	(--)	(0.7)	(6.7)	(8.2)	(6.4)	(3.9)	(4.2)	(6.3)

1/ The classification of sources and uses of resources shown in this table corresponds to that elaborated in Table 1, where additional detail and definitions are provided. Details may not add to totals because of rounding.

2/ For some years, use of Fund credit slightly exceeds the sum of the two components shown by the amount paid in members' own currencies for charges and for gold distributed to members.

3/ For 1970, use of Fund credit with low conditionality covers only amounts outstanding under the compensatory financing facility. For this year and earlier years, amounts of any other drawings not subject to upper-credit-tranche conditionality are not separately available and are included under the category for use of Fund credit with higher conditionality.

4/ Reserve tranche positions show the amount of reserve tranche purchases that members can make.

5/ The lending to the Fund that is counted as part of reserve positions in the Fund does not include short-term lending under the EAR (SDR 0.1 billion at the end of 1981).

a significant contribution to the total of available resources, but its share in that total has tended to decline over the last five years. A similar relative decline can be observed in members' holdings of SDRs above allocations. The growth in the resources used from 1976 to date thus largely took the form of an increase in the use of the resources obtained from quota subscriptions, increased SDR holdings in the General Department, and Trust Fund resources made available during this interval.

During the 1970s, the extension of Fund credit has been the dominant part of the use of the Fund. From 1976 to the end of 1980, the larger part of Fund credit was disbursed under special facilities, chiefly the compensatory financing facility and the oil facilities, which are subject to lower conditionality than ordinary credit tranche drawings. 1/ Financing through these facilities has, however, continued to diminish in both absolute and relative importance since the peak reached in 1976-77. 2/ By the end of 1981, outstanding drawings under upper-credit-tranche conditionality, including drawings under the extended Fund facility and drawings financed with resources of the supplementary financing facility and the enlarged access policy, came to exceed the drawings outstanding under the special low-conditionality facilities by a very substantial margin. New lending commitments and expected repayments indicate a continuation of this trend.

In the last several years, the use of the Fund was augmented by the rapid rise in Trust Fund loans from 1977 to 1981. The resources of the Trust Fund have now been fully committed, however, and its operation has been terminated.

The use of SDRs rose sharply at the end of 1980. As discussed earlier, this resulted in part from the payment of SDRs to the General Resources Account in connection with quota subscriptions that increased the amount by which some members' SDR holdings were below their cumulative allocations. Net financing of SDR use by some members through the acquisition of SDRs by other members in excess of their allocations changed very little since 1976. The absolute amount of this direct transfer of resources from members accepting SDRs to members using them appears to have been unaffected by the growth in the amount of allocated SDRs, which has more than doubled from the end of 1978 to the end of 1981. An appreciable part of the increase, of course, was absorbed by the Fund, as a consequence of its decision to build up and maintain its own holdings.

Viewed over an extended time span, the use of the Fund and the supply of Fund-related reserve assets have both increased relative to Fund quotas. This development is illustrated below:

1/ On a commitment basis, the shift toward greater use of higher conditionality arrangements would appear in 1979.

2/ The resources obtained under the oil facilities were fully utilized by May 1976.

End of Year	Use of the Fund	Supply of Fund-Related Reserve Assets	Fund Quotas	Ratio to Fund Quotas: Use of the Fund	Ratio to Fund Quotas: Supply of Fund-related reserve assets
	(In billions of SDRs)			(Per cent)	
1950	0.2	1.7	8.0	2	21
1960	0.4	3.6	14.7	3	24
1970	3.9	10.8	28.4	14	38
1980	18.2	28.6	59.6	31	48
1981	23.1	37.7	60.7	38	62

The rise in the ratio of the use of the Fund to aggregate quotas in the last two decades can be ascribed to several factors, chiefly to more intensive utilization of quota resources, use of borrowed resources, and establishment of the SDR system and the Trust Fund. The provision of Fund-related reserve assets increased more rapidly than the total of quotas, mainly because of SDR allocations and the rise in the use of Fund credit.

Evolution of the size of the Fund, 1950-81

As discussed earlier, the size of the Fund is here measured primarily by the maximum amount of resources that could be made available to members. For such an assessment, a distinction must be made between those arrangements for the supply of resources that can, in principle, be utilized up to the full amount specified in the arrangement and those that, because of their mutual character, can be used only up to some proportion of the stated amount. The arrangements for borrowing under the oil facilities provide an example of the first kind: as long as none of the potential lenders develops a balance of payments position justifying suspension of its commitment, the agreed total amount of the arrangements with all lenders is available for the purposes specified. 1/ Quota subscriptions paid to the Fund in members' currencies are the most important example of the second kind of arrangement. At any time, only part of the resources derived from currency subscriptions is in fact available to be used by members, because the currencies of members that are in need of balance of payments assistance are not ordinarily used. 2/

1/ Indeed, the total of commitments to the Fund under the oil facility arrangements (SDR 6.9 billion at the peak in 1976) was fully used in drawings under these facilities.

2/ Because of the asymmetrical formulation in the Articles of Agreement of the requirement of need and the obligation to provide currency, a member could in principle be eligible to use the Fund's resources and, at the same time, be obligated to provide currency.

The proportion of such mutual commitments that is potentially available to finance balance of payments deficits of some of the participants cannot be determined precisely, because it depends not only on the rules governing access to the resources in question but also on balance of payments conditions of participating members, in particular, on the distribution of surpluses and deficits in relation to the distribution of the commitments in question (e.g., of quotas).

As regards the potential availability of quota resources, a number of additional elements must also be considered, chiefly the "usability" of the Fund's holdings of SDRs and gold. In the following analysis, it will be assumed that SDRs held by the General Account are fully available and that the gold held by the Fund would not be sold to obtain resources. 1/ The latter assumption implies that the size of the Fund will be assessed by estimating the amount of finance that could be provided to members without using the Fund's remaining gold holdings.

The maximum amount of balance of payments finance that the Fund could ordinarily provide to its members can be assessed by estimating the proportion of Fund members, weighted by their quotas, that could in ordinary circumstances be expected to be simultaneously in balance of payments surplus, so that their currencies could be used in drawings, while the remaining members would be in balance of payments deficit and could thus in principle be eligible to make drawings. This approach is appropriate when the drawings that members can make are sufficiently large relative to quotas for total potential drawings to be constrained by the Fund's holdings of the currencies of surplus countries 2/ rather than by any ceiling on the drawings of deficit countries. At present, the former is clearly the operative constraint on the amount of balance of payments finance available from quota resources. For the first decade and a half of the Fund's history, when use of Fund credit was ordinarily limited to 100 per cent of quota, 3/ this ceiling, too, constituted a potential limit on the maximum amount of balance of payments finance that the Fund could conceivably make available; for this earlier period, this second constraint must thus also be observed in estimating the maximum amount of finance that could be provided from quota resources.

1/ The resources of the Trust Fund stemmed largely from the sale of a portion of the Fund's gold, and these resources were, of course, included in the total use of the Fund shown in Tables 1 and 2. There were also some sales of gold, mainly for the purpose of replenishing the Fund's holdings of currencies, but no account will be taken here of the relatively small amounts involved.

2/ Possibilities that may exist for augmenting these holdings through borrowing or replenishment are taken into account separately.

3/ Before the creation of the compensatory financing facility in 1963, Fund holdings of a member's currency were ordinarily limited to 200 per cent of the member's quota, which permitted the drawing of the "gold tranche" and up to four credit tranches of 25 per cent each.

The proportion of aggregate quotas accounted for by members in surplus has fluctuated from year to year within a fairly wide range. In a sample of 92 Fund members for which annual estimates of the current account balance and the overall payments balance are readily available for a sequence of 15 years (1966-80), members in current or overall surplus accounted for as large a proportion of quotas as two thirds or slightly higher in several years while falling to a quota share as low as one fourth in other years. 1/ What is relevant in the present context, however, is the quota share of members that may be expected to be in surplus continuously over a period of several years, so that their currencies can be made available to members in deficit for the duration of the programs supported by the Fund. On the basis of the data, and their averages, shown in footnote 2 below, a plausible assumption to make in this respect would seem to be that members accounting for one half of aggregate quotas might ordinarily be expected to be in surplus for a sufficiently long period to make their currencies usable in extending Fund credit to members in deficit. This assumption also satisfies the constraint with respect to the limit on members' drawings in the earlier part of the Fund's history. 2/ With average Fund holdings of members' currencies, apart from borrowed currencies, being at present approximately 85 per cent of quota, and the Fund's SDR holdings equal to 8 per cent of

---

1/ The current account balance is defined as the balance of goods, services, and private transfers. The overall balance is defined as the balance on current and capital account, official transfers, and net errors and omissions. Members are classified as being either in surplus or in deficit. For each year, the aggregate quota share of those of the 92 members that were in surplus is shown below (CS = current account surplus, OS = overall surplus):

(In per cent)

Year	CS	OS	Year	CS	OS	Year	CS	OS
1966	63	59	1971	66	68	1976	51	40
1967	49	30	1972	47	53	1977	37	58
1968	49	67	1973	65	51	1978	41	51
1969	62	70	1974	43	29	1979	54	70
1970	66	68	1975	46	26	1980	41	42

These 92 members accounted for 95 per cent of the quotas of all members in 1966 and for 88 per cent in 1980. For the entire 15-year period, the averages of the quota shares of members in surplus are 52.0 per cent and 52.1 per cent for current account and overall surpluses, respectively.

2/ Fund holdings of members' currencies averaged about 80 per cent of quotas in the earlier part of the Fund's history. If members in deficit accounting for 50 per cent of Fund quotas had drawn the full amount of currencies of the remaining members, the average drawing would have amounted to 80 per cent of quota, with about 60 per cent of quota accounting for use of Fund credit.

aggregate quotas, the maximum possible drawings under these assumptions would be about 50 per cent of total quotas. 1/ Since Fund members in balance of payments deficit accounting for 50 per cent of total quotas could draw this amount, the average outstanding drawing would be equivalent to 100 per cent of quota. The contribution of quota resources to the size of the Fund estimated by the method just described is shown in the second line of Table 3.

This estimate of the portion of the Fund's capacity to provide finance that is attributable to quota resources may be compared with data on the supply of the Fund's usable resources which have been prepared for recent periods in connection with quarterly reviews of the Fund's liquidity position. 2/ The difference between the amount of finance that could be provided from quota resources, as shown in Table 3, and the actual use, as given in Table 2, can be seen as an approximation of the Fund's remaining holdings of resources that could be employed; this comparison could overstate those holdings, however, as the "actual use" covers only the use of Fund credit and omits any net purchases in the reserve tranche. Nevertheless, the difference somewhat resembles, at least in general concept, the estimates for the "adjusted balance of usable resources" that appear in the liquidity papers. 3/ The following tabulation compares the two sets of data (in billions of SDRs):

	End of	
	1980	1981
Quota resources (Table 3)	31.0	31.1
Less: Use of resources (Table 2)	8.6	13.4
Difference	22.4	17.7
Adjusted balance of usable resources	20.5 1/	21.0-19.4 2/

1/ The figure refers to "November-December 1980 (after quota increase)."
2/ The figures refer to the period beginning November 1, 1981, and to the situation as of February 28, 1982, respectively.

1/ Fund holdings of currencies of members accounting for 50 per cent of aggregate quotas, each at an average of 85 per cent of quota, is equivalent to 42.5 per cent of aggregate Fund quotas of all members, to which the Fund's SDR holdings of some 8 per cent of aggregate quotas must be added. These figures apply to 1981. For earlier years they are somewhat different because of the Fund's smaller SDR holdings as a percentage of aggregate quotas. See also footnote 3 to Table 3, p. 15.

2/ See "The Fund's Liquidity Position and Financing Needs" (EBS/82/60, 4/2/82) and earlier papers on this subject (EBS/80/272 and EBS/81/226).

3/ The method of calculating those estimates is described in EBS/82/60, Table 2, footnote 1.

Table 3. Analysis of the Size of the Fund: Maximum of Available Resources by Source, End of Selected Years, 1950-81 1/

(In billions of SDRs)

	1950	1960	1970	1976	1977	1978	1979	1980	1981
General Department (excluding gold)	2.8	5.1	15.1	22.3	22.9	26.7	32.3	44.1	48.3
Quota resources (excluding gold) 2/	2.8	5.1	12.0	12.5	13.1	18.2	18.3	31.0	31.1
Borrowing arrangements									
GAB (50 per cent) 3/	—	—	3.1	3.1	3.4	3.5	3.4	3.4	3.2
Oil facilities (100 per cent)	—	—	—	6.7	6.4	5.0	2.8	1.9	0.9
SFF (100 per cent)	—	—	—	—	—	—	7.8	7.8	7.8
EAR (100 per cent)	—	—	—	—	—	—	—	—	5.3 4/
SDR Department 5/	—	—	1.6	4.3	4.1	4.1	6.2	5.9	8.2
Trust Fund resources (100 per cent)	—	—	—	—	0.2	0.8	1.4	2.6	3.0
Total excluding gold 6/	2.8	5.1	16.7	26.6	27.1	31.6	39.9	52.6	59.5
Memorandum items:									
Fund gold at book value (SDR 35 per ounce)	1.5	2.4 7/	4.3 7/	5.2	4.6	4.1	3.7	3.6	3.6
Potential supply of Fund-related reserves 8/	4.0	7.4	20.7	33.8	33.7	37.3	46.8	60.3	69.0

1/ Details may not add to totals because of rounding.
2/ Calculated as the sum of total Fund holdings of SDRs plus 50 per cent of Fund holdings of currencies excluding the counterparts of borrowings and of gold investment (see text).
3/ It is assumed that up to one half of the GAB commitments could be used at a given time.
4/ Including SDR 4 billion of the amount committed by the Saudi Arabian Monetary Agency.
5/ Calculated as one half of holdings by countries (see text).
6/ Total resources include those that would be required for financing reserve tranche purchases. Such purchases, however, are excluded from the "use of the Fund" shown in Table 2. The difference between the use of the Fund and the maximum of available resources may, therefore, be larger than the amount of resources that is not being used.
7/ Including gold investment.
8/ Sum of SDR allocations, Fund borrowing arrangements, and 50 per cent of quotas (see text).

At least in this recent period--the only one for which comparable estimates are available--the two quite different methods of calculation actually produce results that are rather similar. The element representing quota resources included in the size of the Fund, which is intended to reflect a notion of average experience over the whole existence of the Fund, appears currently to be understating by a moderate amount the finance that the Fund could still make available from its currency and SDR holdings.

Maximum availability of quota resources as a component of the size of the Fund thus embodies a concept of usable resources that is similar to the one regularly used in assessing the Fund's liquidity. A different technique is, however, applied in estimating it. First, the concept used in this paper is employed to assess the Fund's capacity in providing balance of payments finance and, for this reason, is oriented toward the balance of payments criterion of a member's need for finance or ability to provide it. The concept appropriate for the analysis of the Fund's liquidity is defined by the double criterion of a member's balance of payments and reserve position. For this reason alone, the two measures should not be expected to be congruent. Second, maximum availability combines all resources, without distinction as to whether they have already been disbursed or still remain to be used. The size of the Fund, therefore, is not affected by any actual or assumed changes in the intensity of use of its resources or in the country configuration of payments imbalances. This degree of abstraction, which would not seem satisfactory for appraising the Fund's liquidity for operational purposes, is an advantage in estimating and projecting the size of the Fund in the present context.

As noted above, SDRs held by the General Account are assumed to be fully available and thus to contribute in their entirety to the potential supply of quota resources. For SDRs held by countries, the situation is different. Because participants in a sufficiently strong position are obligated to provide currencies against SDRs until their holdings of SDRs are three times their net cumulative allocations, 1/ the SDRs held by countries at the end of 1981 could in principle have been concentrated in the hands of participants with some 25 per cent of cumulative allocations. 2/ According to this calculation, therefore, about three quarters of countries' holdings could be considered usable. The proportion could fall no lower than two thirds, which would occur when the total amount allocated remained in the hands of members, with no SDRs held by the General Account.

The maximum use of countries' holdings of SDRs is, however, subject to the same constraint as the maximum use of quota resources, namely,

---

1/ In addition, the Fund and members may reach agreement providing for acceptance of SDRs above the mandatory limit.

2/ At the end of 1981, cumulative allocations were SDR 21.4 billion, of which countries held SDR 16.4 billion. This latter amount could have been held by members accounting for cumulative allocations of SDR 5.5 billion (16.4/3), i.e., by members holding 25.5 per cent of cumulative allocations (5.5/21.4 = 0.255).

that only one half of the membership, by quota, would ordinarily be expected to be in deficit for any period of several years. 1/ Moreover, if a larger portion of the membership were assumed to be in deficit at a certain time, so that the use of SDRs could exceed one half of countries' holdings, the use of quota resources would at that time be less than the maximum assumed to be attainable when members accounting for one half of aggregate quotas are in surplus. A joint maximum use of quota resources and of SDRs requires that a common balance of payments configuration be assumed for both calculations. For this reason, the maximum contribution of SDRs to the size of the Fund will be assumed to equal one half of the amount held by countries. 2/

As already indicated, most borrowing arrangements can be used in their entirety, unless the balance of payments position of one or more of the participants were to deteriorate unexpectedly. The General Arrangements to Borrow (GAB), however, are a mutual arrangement, under which participants experiencing difficulties are to be financed by the other participants. Only a part of the agreed total amount can, therefore, actually be used at any one time. In the light of the historical pattern of payments imbalances of GAB members, a figure of one half of the total has been chosen to represent the maximum borrowing that might be plausible.

Estimates of the size of the Fund arrived at by applying the foregoing considerations to the various assets and arrangements that enable the Fund to contribute to members' balance of payments finance are shown in Table 3 and Chart 1. While the SDR system has contributed substantially to the growth of the size of the Fund through the allocations of 1970-72 and 1979-81, the contribution of the resources of the General Department, augmented by various borrowing arrangements, has grown equally rapidly in recent years. The contributions of the SDR system and of the Fund's general resources, excluding gold but including borrowed resources, have both approximately doubled from the end of 1975 to the end of 1980.

1/ For this discussion, it is implicitly assumed that countries' holdings of SDRs are proportional to their cumulative allocations and that those allocations, in turn, are proportional to quotas. Although each year's allocation is proportional to quotas, cumulative allocations are not strictly proportional to the quotas in effect on any given date.

2/ For recent periods, some upward adjustment could be made in the proportion of countries' SDR holdings considered to provide potential finance to members in deficit at a given time in recognition of the fact that SDR holdings by other (i.e., nonmember) authorized holders add further to this potential. While in principle there is no limit to the additional amount that could be absorbed by other holders, no upward adjustment has actually been made, because experience has as yet provided no guidance as to its size.

SDR holdings of the General Resources Account are not separately counted as adding further to the potential finance provided by the SDR system, since these holdings are part of the quota resources already counted in the contribution of the General Department to the size of the Fund.

The summary tabulation below shows, first, that the use of the Fund has increased somewhat faster than the size of the Fund; 1/ and, second, that the size of the Fund has grown relative to aggregate quotas:

	Use of the Fund (1)	Size of the Fund (2)	Fund Quotas (3)	Ratios (1)/(2)	(2)/(3)
	(In billions of SDRs)			(In per cent)	
1950	0.2	2.8	8.0	7	35
1960	0.4	5.1	14.7	8	35
1970	3.9	16.7	28.4	23	59
1980	18.2	52.6	59.6	35	88
1981	23.1	59.5	60.7	39	98

From the decade of the 1950s--as shown in the figures for both 1950 and 1960--to the end of 1981, the size of the Fund increased nearly threefold relative to quotas, as seen in the last column above. This is to say that the growth of quotas has fallen considerably behind the evolution of other sources contributing to the size of the Fund. An assessment of the implications of this evolution will be postponed until the last section, after the growth of the Fund has been compared with the growth of other relevant aggregates.

The potential supply of Fund-related reserves may be assessed by applying a procedure similar to that used for estimating the size of the Fund in its role as a supplier of finance. 2/ Potential reserve tranche positions of surplus countries may be estimated with the help of the same assumptions that are used in quantifying the size of the Fund. It has thus been assumed that the currencies of members accounting for 50 per cent of quotas could be used in their entirety for drawings, so that their reserve tranche positions would equal their quotas.

The estimate that should be made for the reserve tranche position of other countries--those that are assumed to be making use of Fund resources--is not quite as clear. For 1950 and 1960, the deficit countries would have had to draw their "gold tranche" before making use of Fund credit,

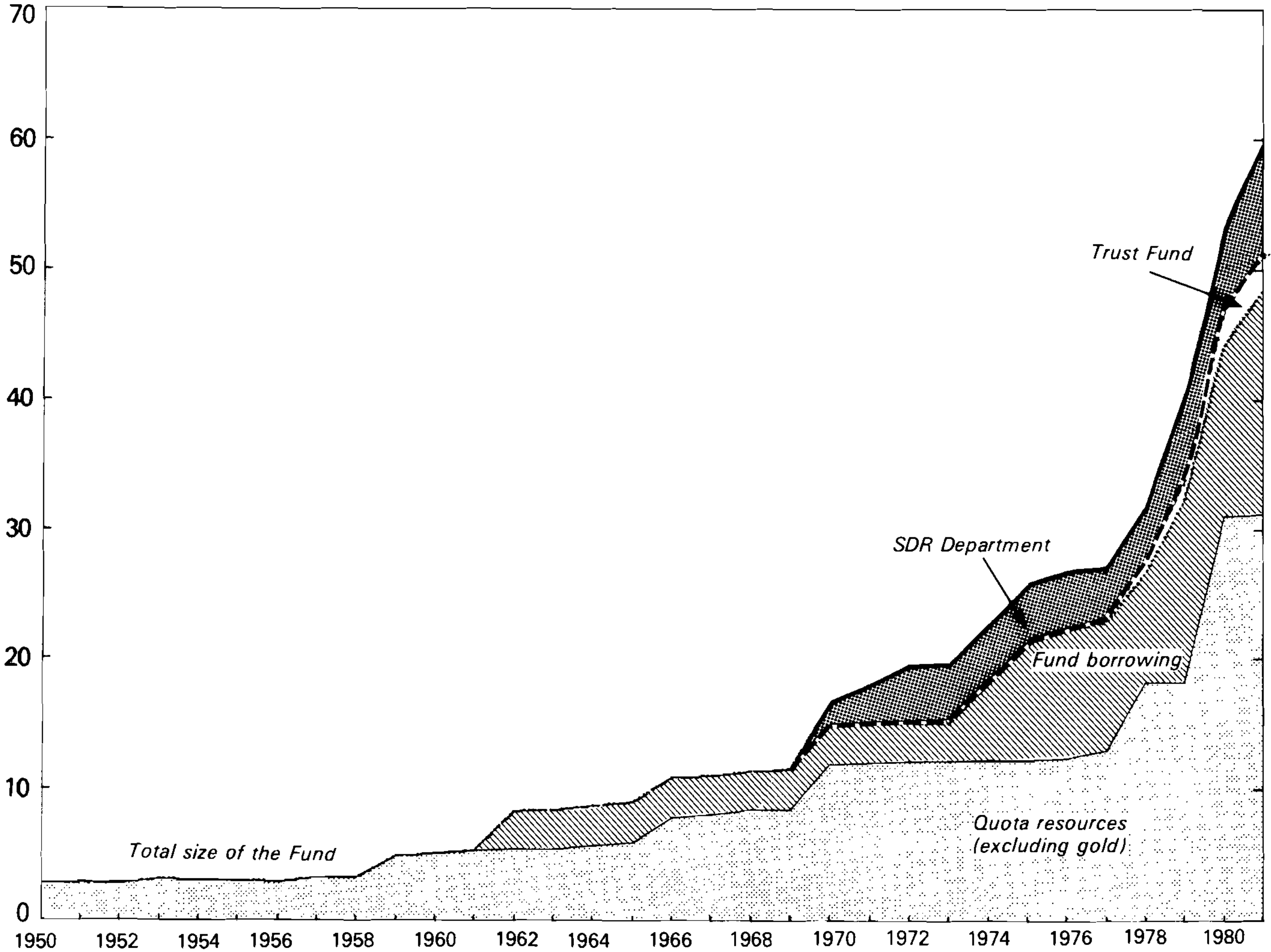
1/ This comparison has a tendency to overstate the size of the Fund relative to the use. As measured here, the use does not include reserve tranche drawings, whereas some of the resources making up the Fund's size might be applied to such drawings. This difference may be particularly important for 1980 and earlier years, when drawing in the reserve tranche was a precondition for drawing in the credit tranches.

2/ It should be noted that the potential supply of Fund-related reserves is not an indicator of the global creation of international liquidity that could have taken place through the Fund, since changes in the actual supply of Fund-related reserves could be accompanied by offsetting or reinforcing changes in other official holdings.

CHART 1

SIZE OF THE FUND AND PRINCIPAL COMPONENTS, 1950-81

(In billions of SDRs)



and their reserve tranche position would thus be zero by definition. During the more recent part of the period, however, members could retain their reserve tranche positions intact while making drawings under certain Fund facilities, and effective May 1, 1981 members have the option of retaining a reserve tranche position whenever they make use of Fund credit. With that provision, every country might at some time acquire a reserve tranche position equal to its quota and thereafter retain that position permanently. Under those circumstances, reserve tranche positions of deficit countries would also be equal to their total quotas. As this theoretical possibility applies only to the most recent date shown and could not have been realized by that time, it is not reflected in the table. Instead, the simplifying assumption is made that no deficit country had a reserve tranche position at any of the dates in question.

For SDRs, it can be assumed that the total allocation might be held by countries as reserves, apart from a possible need of the Fund for working balances, which has been disregarded. Finally, borrowing by the Fund from the authorities generates an equal amount of Fund-related reserves for the countries concerned, so that the amount assumed to be available under borrowing arrangements may be taken as their potential contribution to reserves.

The resulting estimate of the potential supply of Fund-related reserve assets is shown as a memorandum item in Table 3. This amount is in all recent years quite close to the size of the Fund plus its gold holdings at book value. 1/ This parallelism is not unexpected, as the two measures are closely related. 2/ As a result, it is possible to conduct the discussion of the size of the Fund in terms of the Fund's maximum possible contribution to finance, without having to be concerned that an analysis of the size of the Fund in terms of its other financial objective, namely, the provision of reserve assets, would give markedly different indications.

IV. Size of the Fund in Perspective

The size of the Fund can be set in proper perspective by comparing it with measures of the size of the financial tasks to be undertaken by the Fund. These tasks, to repeat, include the provision to members of temporary balance of payments assistance and of reserve assets as the need arises. The size of the Fund, which reflects its ability to carry out these functions, can usefully be compared with three different types of indicator: first, members' payments imbalances; second, members' reserves

---

1/ For the end of years 1972-81, Fund-related reserve assets ranged from 4 to 9 per cent higher than the size of the Fund plus its gold holdings at book value. For that period as a whole, the average was 7 per cent higher.

2/ The size of the Fund and the potential supply of Fund-related reserve assets both depend chiefly on the resources subscribed by members, Fund borrowing, and SDR allocations; the reserve positions in the Fund created by gold subscriptions reflect the book value of the gold.

and access to financial markets; and third, economic and financial aggregates that indicate the size of the international economy.

Although all of these comparators relate in one way or another to the financial functions of the Fund, none of them is by itself a fully adequate indicator for the appropriate size of the Fund. There may be good reasons for favoring a faster or a slower growth of the Fund's activities compared with other aggregates. The comparators are only elements that enter, together with other considerations, into an assessment of the appropriate size of the Fund. Some of these considerations are reviewed in Section V below.

Size of the Fund and magnitude of payments imbalances

Because a major role of the Fund is to assist its members by providing means for the financing of temporary balance of payments deficits, the magnitude of these deficits is an important indicator in the assessment of the appropriate size of the Fund. These overall imbalances must be financed through borrowing or through a change in reserve assets or liabilities. One drawback of the concept of an overall payments deficit is the difficulty encountered in defining it in a consistent manner for countries adhering to different exchange regimes and having different types of financial institutions and practices. For this reason, the current account balance (goods, services, and private transfers), which is conceptually more straightforward, is also employed in the following analysis. It turns out that use of these alternative concepts leads to similar conclusions.

The growth in the size of external deficits and surpluses is used in this paper as an indicator of the evolution of the magnitude of balance of payments deficits requiring financial resources for their settlement. For this purpose, deficits and surpluses could be added separately for the countries in a particular sample and used as indicators for the amounts of resources needed and made available, respectively. If the sample of countries comprises a large part of the world economy, the sum of deficits tends to be close to the sum of surpluses; there are, however, certain inevitable statistical discrepancies, and for this reason it is convenient to use the sum of all imbalances--deficits and surpluses without regard to sign--as a single indicator of the scale on which finance is required.

The sum of current account imbalances of 111 countries (for which data on payments imbalances are available from 1962 forward) increased sevenfold from the annual average for 1962-65 to that for 1976-80 (Table 4).1/ In 1980, the sum of these imbalances, SDR 222 billion, was eleven times the average for 1962-65. Recorded overall imbalances tended to be much smaller than current account imbalances, on average about 60 per

1/ As the sum of imbalances tends to be quite variable from year to year (see Chart 2), annual averages for five-year periods (four years for the first available period) are presented in addition to the figures for individual years (see also Table 11 at the end of the paper).

Table 4. Payments Imbalances, Imports, Size of the Fund, and Quotas, 1962-80 1/

	Annual Averages								
	1962-65	1966-70	1971-75	1976-80	1976	1977	1978	1979	1980
				(In billions of SDRs)					
Payments imbalances									
Current account 2/									
111 countries	20	26	76	145	106	125	129	145	222
92 members	18	25	70	133	94	115	119	133	204
Overall balance 3/									
111 countries	8	16	52	78	50	91	97	74	80
92 members	8	15	49	74	46	87	90	70	77
Merchandise imports									
111 countries	149	227	474	1,026	767	873	942	1,149	1,401
92 members	141	217	452	975	731	830	893	1,093	1,330
Size of the Fund	9	12	21	36	27	27	32	40	53
Quotas: 92 members	...	21	27	36	27	27	36	36	54
				(In per cent)					
Ratios 4/									
Size of the Fund to imbalances									
Current account (111 countries)	45	47	28	24	25	22	24	27	24
Overall balance (111 countries)	105	78	41	45	53	30	33	54	66
Quotas to imbalances									
Current account (92 members)	—	85	38	27	29	24	30	27	27
Overall balance (92 members)	—	139	55	49	60	31	40	52	70
Payments imbalances to imports									
Current account (111 countries)	13	12	16	14	14	14	14	13	16
Overall balance (111 countries)	6	7	11	8	7	10	10	6	6

1/ The sums of payments imbalances and the data on imports are for the years shown, while figures on Fund size and quotas are for the end of corresponding years. When the values of stocks and flows are rising over time, ratios of year-end stocks to annual flows tend to be somewhat higher than the ratios of synchronized stocks and flows (e.g., annual average stocks and annual flows).

2/ Net balances on account of merchandise trade, services, and private transfers are summed for the indicated countries without regard to sign.

3/ Net balances on current and capital account, official transfers, and net errors and omissions are summed for the indicated countries without regard to sign.

4/ Ratios are calculated from unrounded figures.

cent of the latter. At this smaller scale, however, overall imbalances also grew rapidly, with the annual average increasing tenfold from the period 1962-65 to that of 1976-80, when it reached SDR 78 billion. It is worth noting that merchandise imports over the same time span grew not quite sevenfold, that is, at the same rate as current account imbalances and somewhat more slowly than overall imbalances (Table 4 and Chart 2). 1/

The size of the Fund expanded fourfold from the average of 1962-65 to that of 1976-80 and consequently fell far behind the increase in payments imbalances. Over this period, the ratio of the average size of the Fund to the average sum of current account imbalances fell by almost one half, and the ratio to the average sum of overall balances by almost three fifths. Fund quotas alone, which increased more slowly than the size of the Fund, declined even more sharply relative to the size of payments imbalances. From an average of 85 per cent in the period 1966-70, the ratio of the quotas of 92 countries that have been Fund members since 1966 to the sum of their current account imbalances fell by more than one half, to 38 per cent, in the years 1971-75 and to 27 per cent in the most recent five years. The decline in the ratio of quotas to the sum of overall imbalances was even more severe: while drawings equal to, say, 125 per cent of quota would in the years 1966-70 have financed the overall deficit of a "representative" member for 21 months, they would have covered that deficit on average for only seven months in the years 1976-80.

Size of the Fund and growth of international liquidity

Comparing the size of the Fund with the growth of payments imbalances has stressed the question of the adequacy of the Fund's resources in providing balance of payments finance to members; relating it to measures of international liquidity brings to the fore the responses that members and their financial institutions have made to the task of financing payments imbalances. Moreover, the Fund's provision of reserve assets should be seen in the perspective of the growth of members' total international reserves, which provide resources for the financing of payments imbalances that might arise in the future.

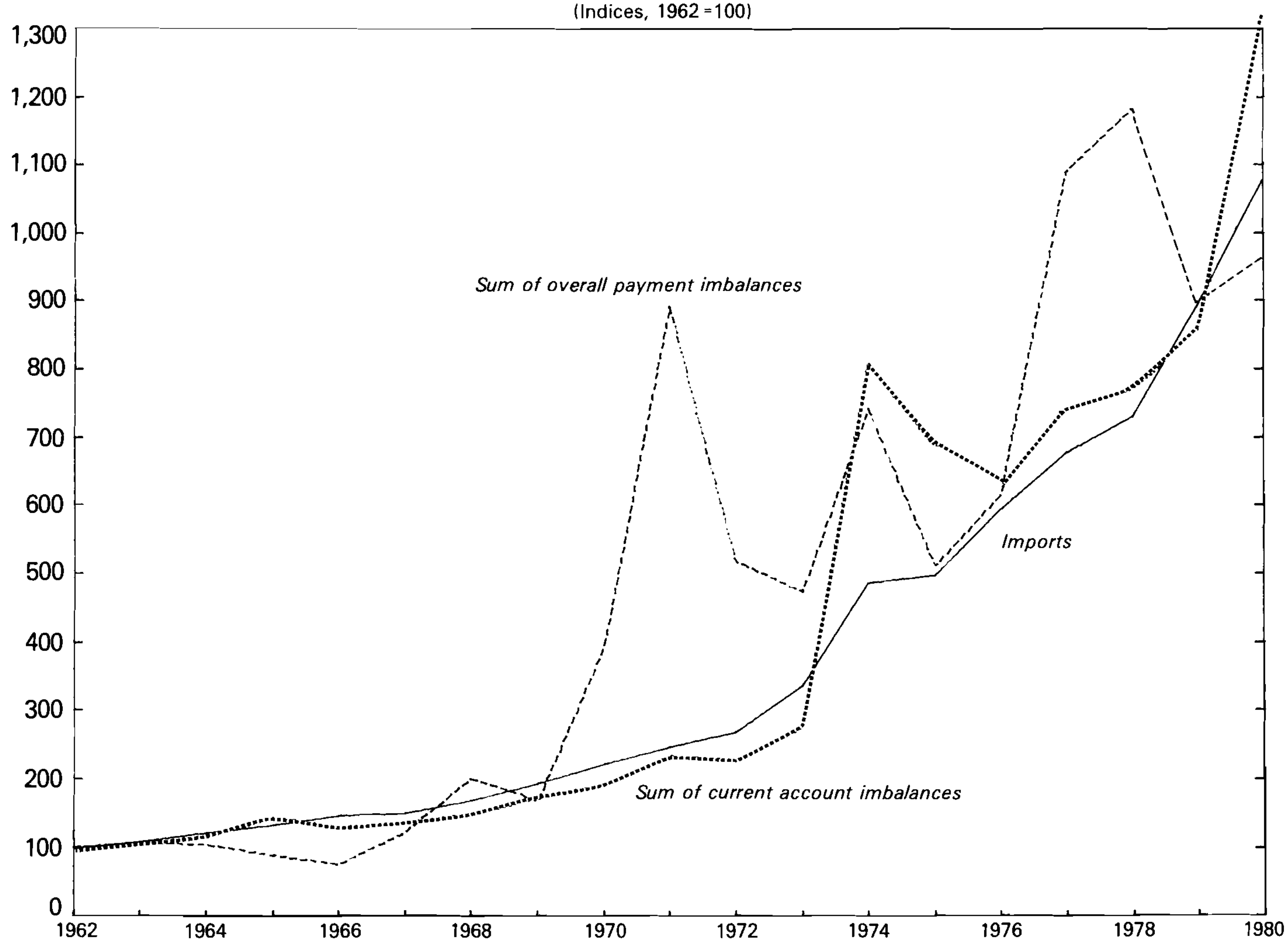
The magnitudes of official holdings of international reserve assets and outstanding amounts of international bank lending are compared with data relating to the size of the Fund in Table 5. The actual use of the

1/ The aggregate of quotas in the Fund has grown over time as a result both of general as well as special increases in the quotas of existing members and of an increase in membership. Since 1946, the membership has more than tripled, and since 1960 it has more than doubled. In order to avoid bias in long-run comparisons of quotas and other aggregates, it is advisable to examine data relating to constant samples of countries that have been Fund members for the chosen time period. Detailed data, using three constant samples of countries, can be found in Appendix Table 10 for 111 countries for which data on payments imbalances are available from 1962 forward; for 92 countries that have been Fund members during the period 1966-80; and for 50 Fund members for comparisons starting from 1956.

CHART 2

SUMS OF CURRENT ACCOUNT AND OVERALL BALANCES, AND IMPORTS: 111 COUNTRIES, 1962-80[1]

(Indices, 1962 = 100)



[1]The sums of imbalances represent the summations of surpluses and deficits without regard to sign.

Table 5. Use of the Fund, Size of the Fund, and Related Financial Data,
End of Selected Years, 1950-81

	1950	1960	1970	1976	1977	1978	1979	1980	1981
				(In billions of SDRs)					
Use of the Fund	0.2	0.4	3.9	15.3	16.0	14.3	12.7	18.2	23.1
Size of the Fund	2.8	5.1	16.7	26.6	27.1	31.6	39.9	52.6	59.5
Supply of Fund-related reserves									
Actual	1.7	3.6	10.8	26.4	26.2	22.9	24.2	28.6	37.7
Maximum	4.0	7.4	20.7	33.8	33.7	37.3	46.8	60.3	69.0
Quotas	8.0	14.7	28.4	29.2	29.2	39.0	39.0	59.6	60.7
SDR allocations	—	—	3.4	9.3	9.3	9.3	13.3	17.4	21.4
International reserves (excluding gold)	15	22	56	187	228	245	272	324	341
International bank lending: outstanding loans 1/	...	...	88	284	354	411	505	635	764 2/
				(Indices, 1970 = 100) 3/					
Use of the Fund	5	11	100	392	407	368	324	465	592
Size of the Fund	17	31	100	161	163	191	240	317	359
Supply of Fund-related reserves									
Actual	16	33	100	244	243	212	224	265	339
Maximum	19	36	100	163	163	180	226	291	333
Quotas	28	52	100	103	103	137	137	210	213
SDR allocations	—	—	100	273	273	273	391	509	628
International reserves (excluding gold)	27	39	100	332	406	436	484	575	607
International bank lending: outstanding loans	...	...	100	323	402	467	574	722	868 2/

1/ Figures are from IMF, International Capital Markets, Occasional Paper 7, August 1981, Table 32, p. 75.
2/ End of September 1981.
3/ Indices are calculated from unrounded figures.

Fund and the size of the Fund have both expanded much less rapidly than either of those aggregates, and quotas have lagged even further behind. While international reserves and international bank lending have risen some six or seven times from 1970 to 1980/81, the size of the Fund has increased only three to three and one half times over the same period, while quotas barely more than doubled.

The actual supply of Fund-related reserve assets, as well as its maximum possible extension, expanded approximately threefold in the decade of the 1970s, and less than fourfold if the end of 1981 is used as a cut-off point. As a consequence, the contribution of the Fund to total reserves, as well as its capacity so to contribute, declined severely. The ratio of Fund-related reserve assets to total non-gold reserves declined from 19 per cent at the end of 1970 to 9 per cent a decade later, and at the same time the ratio of the potential supply of these reserve assets to that total fell from 37 per cent to 19 per cent.

Size of the Fund and scale of the world economy

In assessing the adequacy of Fund quotas, it has been traditional to compare the size of quotas with the size of world imports, even though payments imbalances should be considered a more relevant comparator, albeit one that is less readily available and more difficult to forecast. The justification for using imports as a comparator in connection with quotas was illustrated in Table 4 and Chart 2 above: the size of payments imbalances has tended, in the long run, to grow at the same rate as world trade. In addition, however, the growth of world imports is also one of the principal general measures of the growth of the world economy.

The relation between the size of the Fund, as well as aggregate quotas, and world imports is shown in Table 6 and Chart 3. Both the size of the Fund and the sum of quotas have declined relative to world imports since the 1960s. This decline has been particularly sharp for quotas. Although the ratio of quotas to imports has held steady since 1976 by virtue of the last two quota increases, the current ratio is less than one half of that prevailing during the 1960s and even further below that of the 1950s. The ratio of the size of the Fund to imports has changed rather little from the mid-1970s to date, but its average value during the seven-year period 1974-80, 3.4 per cent, was over one third lower than the average ratio of 5.5 per cent during the preceding ten years.

The quota calculations made in the course of the periodic general reviews of quotas constitute a more broadly-based scale indicator than imports or other single variables, since these calculations combine several key variables reflecting the economic size of open economies, including national income, reserves, imports, and exports. 1/ In recent

1/ The quota formula used for these calculations is the "reduced Bretton Woods formula." Quota calculations with alternative formulas show similar results. For a description of these calculations, see EB/CQuota/82/4, pp. 2-9.

CHART 3

RATIOS OF SIZE OF THE FUND AND QUOTAS TO IMPORTS, 1950-80

(In per cent)

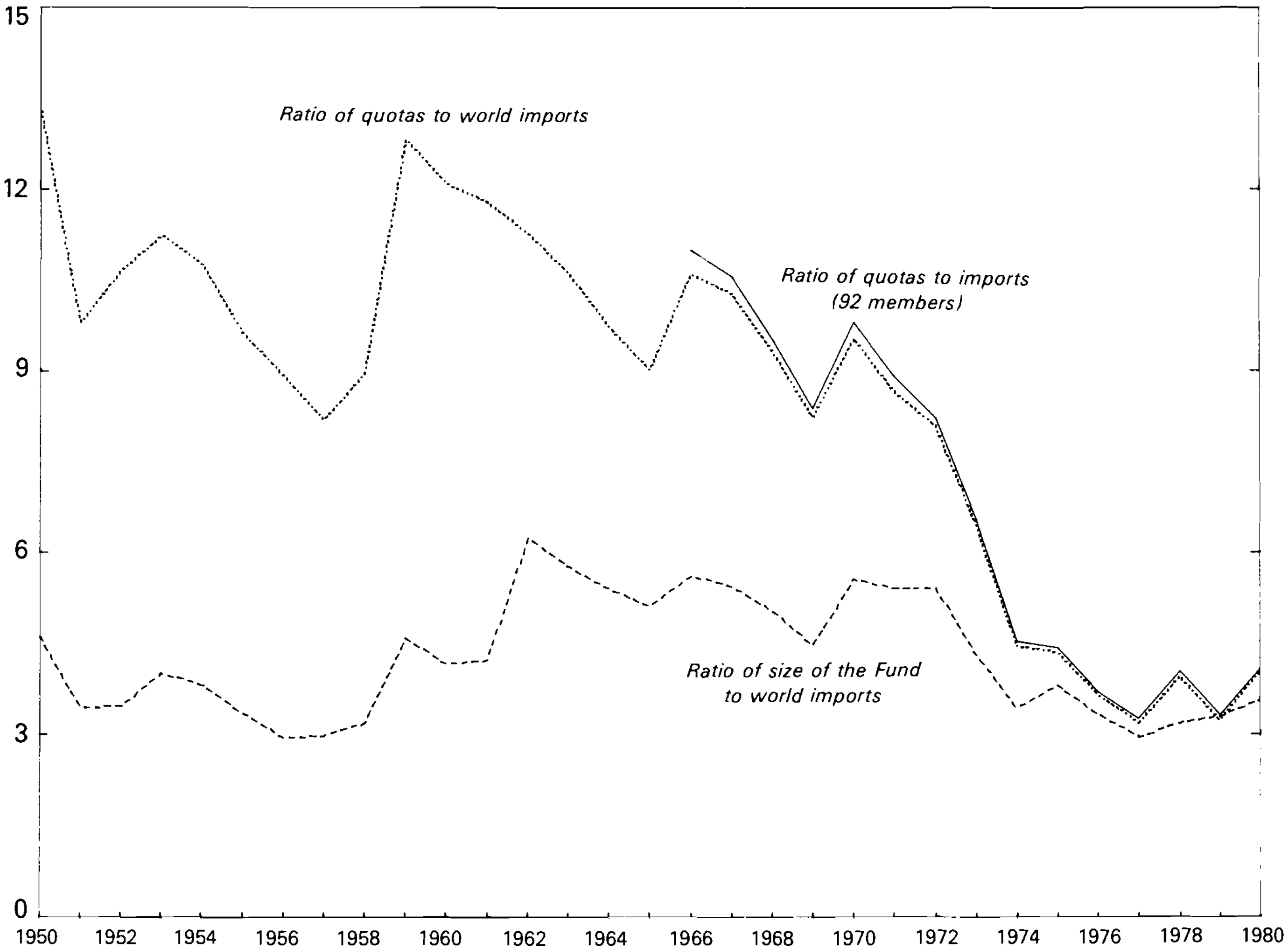


Table 6. Size of the Fund, Actual and Calculated Quotas, and Imports, Selected Years, 1950-1980 1/

	1950	1960	1965	1969	1970	1976	1977	1978	1979	1980
					(In billions of SDRs)					
Size of the Fund	3	5	9	12	17	27	27	32	40	53
Quotas										
Actual	8.0	14.7	16.0	21.3	28.4	29.2	29.2	39.0	39.0	59.6
Calculated 2/	—	—	19	29	—	50	—	95	—	3/
World imports	60	122	177	259	298	804	917	993	1,212	1,483
					(In per cent)					
Ratios 4/										
Size of the Fund to										
Imports	5	4	5	5	6	3	3	3	3	4
Calculated quotas	—	—	48	40	—	53	—	33	—	3/
Actual quotas to										
Imports	13	12	9	8	10	4	3	4	3	4
Calculated quotas	—	—	84	74	—	58	—	41	—	3/

1/ Certain years shown in this table were selected so as to use existing quota calculations made in connection with previous General Reviews of Quotas. There are years in which the Board of Governors approved resolutions giving effect to quota increases under the Fourth to Seventh General Reviews of Quotas. Data for size of the Fund and quotas are for the end of the years shown.

2/ Calculated quotas are based on the Bretton Wood formula (reduced) and are taken from EB/CQuota/82/4, p. 8. for 1959 is taken from SM/64/26, p. 17; all other calculations are taken from SM/81/151, p. 7.

3/ Quota calculations made in 1982 with 1980 data indicate a sum of quotas calculated under the reduced Bretton Woods formula of SDR 202 billion. The ratios of the size of the Fund and actual quotas in 1981 to that sum are 29 per cent and 30 per cent, respectively. See also discussion in text.

4/ Ratios are calculated from unrounded figures.

years, the size of the Fund has declined relative to calculated quotas; in 1978, it amounted to one third of calculated quotas, compared with two fifths in 1969 and about one half in 1965 and 1976. The ratio of actual to calculated quotas fell in consecutive General Reviews from the fourth to the to the seventh (1965 to 1978), reaching in 1978 one half the value it had in 1965. From 1978 to 1982, when the latest quota calculations were made, the sum of quotas calculated under the reduced Bretton Woods formula more than doubled. The ratios of the size of the Fund and of actual quotas in 1981 to this calculated total lie below the corresponding ratios for earlier years. They are not strictly comparable, however, with those earlier ratios, which are calculated for years in which the respective Governors' resolutions on general quota increases were adopted.1/

Historical overview

Leaving aside the early years of the Fund--say, up to 1960--the size of the Fund has increased, but its growth has tended to lag behind that of the world economy and associated financial aggregates (Chart 4). The expansion of the size of the Fund has been achieved in part through the use of new mechanisms such as the SDR system, through access to additional resources under new borrowing arrangements, and through the partial mobilization of previously unused resources such as the Fund's gold holdings, from which a large part of the Trust Fund resources were derived. Quota resources alone increased more slowly than the Fund's overall capacity to provide finance to members, growing roughly sixfold from 1960 to 1980 while world imports and non-gold reserves expanded by factors of 12 and 15, respectively.

Much of the increase in the size of the Fund was concentrated in recent years. For instance, during the period of two years from the end of 1979 to the end of 1981, the Fund's capacity to provide finance rose by almost one half--more rapidly than any of the comparator magnitudes. Renewed allocation of SDRs, Fund borrowing on an increased scale, some mobilization of gold resources through the Trust Fund, and an increase in quotas that was by historical standards relatively large, caused the size of the Fund to advance especially rapidly from 1978 onward, following a phase during which it had severely lagged behind the expansion of world trade and reserves. As a result, the ratios of Fund size to world imports and non-gold reserves recovered somewhat from the historical low points reached at the end of 1977. Fund quotas, just as the overall size of the Fund, doubled from the end of 1977 to the end of 1980, a three-year period that saw two general quota increases become effective.

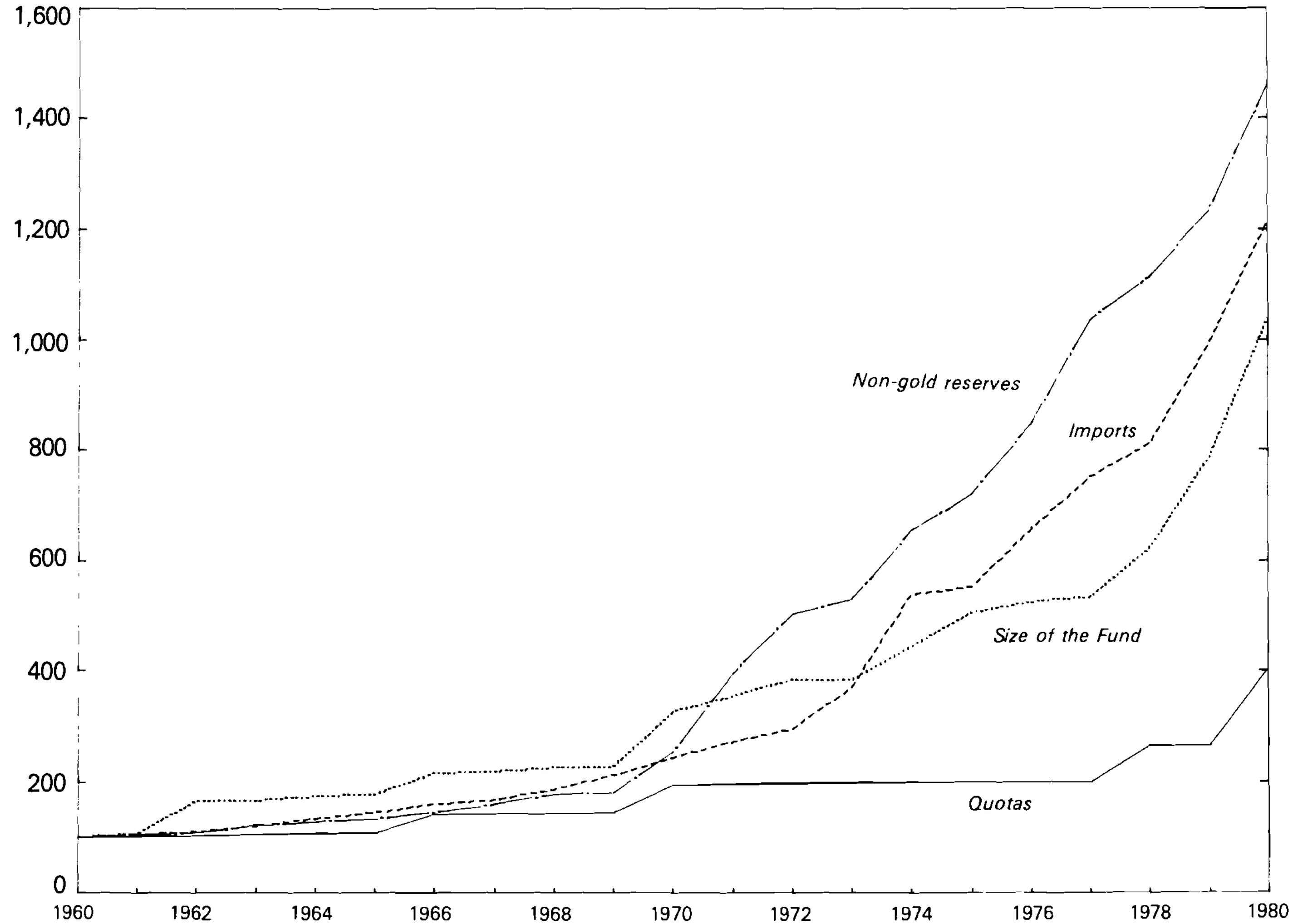
While the developments just described had the effect of reversing the downward trend in the relation between the size of the Fund and relevant measures of its tasks after 1977, they restored the relative capacity of the Fund only to its level of about 1975, far below that of any earlier period in the Fund's history.

1/ The resolution with respect to the Eighth General Review of Quotas is not expected to be adopted earlier than 1983.

CHART 4

SIZE OF THE FUND, QUOTAS, IMPORTS, AND NON-GOLD RESERVES, 1960-80

(Indices, 1960 = 100)



The lagging growth in the size of the Fund in the longer run, and the even more pronounced lag in the growth of quotas, have had significant consequences for the international monetary system. First of all, this development has meant that the financing needs of countries with payments deficits have, over time, more frequently exceeded the capacity of the Fund to provide assistance from quota resources within the regular tranche structure. This may have imposed a constraint on the exercise of one of the Fund's most important functions, namely, to promote adjustment through the provision of financial support for economic stabilization programs. Another important consequence of these developments is that the Fund, in meeting the financing requirements of its members, had to depend increasingly on resources other than quota subscriptions, which has produced an increase in the average cost to members of obtaining balance of payments assistance from the Fund. These and related consequences will be further discussed in Section V below.

V. Prospects for the 1980s

Although work on the Eighth General Review of Quotas has already begun, the quotas decided in that review will not become effective for several years. When they do, world economic conditions will have changed in ways only imperfectly foreseeable now. Present forecasts and projections make it clear, however, that substantial increases are to be expected in many of the relevant financial aggregates with which quotas and the potential provision of Fund-related resources--the size of the Fund--have been compared in the preceding section. The size of a general quota increase cannot, of course, be decided solely in relation to projections of the scale of the world economy and members' financial requirements. Major questions also arise about the role that the Fund should play, together with other institutions and private markets, in providing balance of payments finance and reserve assets to its members.

The single most important consideration in this context is that the balance of payments assistance given by the Fund to its members differs in character from the balance of payments finance made available by other public and private institutions. The principal difference lies in the conditionality of a large part of the Fund's support, which entails a thorough analysis and discussion with the authorities of a member's economic situation and thereby often provides the stimulus to the adoption of effective stabilization programs. The Fund also differs notably from commercial suppliers of credit in its attitude toward risk (the Fund supports all well-designed and credible programs regardless of the size, political system, and commercial credit rating of the member concerned), in the cost of the support extended, and in the continuity of the support in case of adverse developments beyond the control of the member.

These considerations suggest that, in the provision of finance, the Fund and other financial institutions and markets are to a large extent complementary rather than competitive. Both of these channels through which countries may obtain finance need to be augmented in response to the growth in payments imbalances. It may be difficult, of course, to determine the proper dividing line between the areas to be mainly served by the Fund and by other institutions and markets, and the views of members on this question may be affected by their political philosophy as well as their balance of payments history. Nevertheless, shifts in this line that can be expected to be agreeable to most members are likely to be slight. For this reason, the historical apportionment of financial tasks between the Fund and other entities contributing to their achievement has strong relevance and will be emphasized in the illustrative projections elaborated below.

The appropriate size of the Fund is taken up in the following subsection, while the question of the composition of any planned increase in Fund size is discussed thereafter.

Size of the Fund in 1985 and 1990

In assessing the growth of the Fund that would make it possible for the exercise of its financial functions to keep pace with the tasks to be accomplished, primary weight will at first be given to the evolution of payments imbalances. Since payments imbalances cannot easily be projected into the more distant future, use can be made of the observed relation of approximate proportionality between aggregate payments imbalances and world imports in the past (see Table 4 and Chart 2 above). The relation between the size of the Fund and projected international reserves will be considered later, when the implications of various ways of expanding the Fund's size are drawn.

On the presumption that the quotas decided in the Eighth General Review would serve the international community through much of the second half of the present decade, projections for 1985 and 1990 are considered relevant in the present context. By the end of 1985, the new quotas may have been effective for a number of months, and that year may, therefore, be compared with the present situation, with the quota increases resulting from the Seventh General Review having become effective a year ago. If the quinquennial periodicity of quota reviews is maintained, 1990 could again be a year just following a general increase in quotas. This question of timing can have an important bearing on the phasing of borrowing by the Fund, insofar as such borrowing is intended to bridge a gap between the resources available from quota subscriptions and those required for continuity in the conduct of the Fund's operations. This aspect of Fund borrowing will be discussed later in this section. Matters of timing are also relevant to a consistent identification of quota targets, since the ratio of quotas to any smoothly growing variable fluctuates in a cyclical pattern reflecting the periodicity of general quota reviews (see Chart 3).1/

1/ This cyclical effect could be avoided if quotas were increased in annual installments, albeit under quinquennial decisions, similar to the

During the decade just ended, the average ratio of the year-end size of the Fund to the annual value of world imports was 3.9 per cent, slightly higher than in 1980, when it was 3.6 per cent. For the entire period shown in Chart 3 (p. 24a), from 1950 to 1980, the ratio was 4.3 per cent. While the average ratio for the decade 1971-80 may be considered relevant for a discussion of the growth of the size of the Fund in future years, it is clear that it offers only imperfect guidance. Mere maintenance of this ratio (Alternative A) would perpetuate the Fund's reduced capacity of the 1970s to accomplish its tasks, compared to earlier periods in the Fund's history. A return to the average ratio for the three decades 1950-80 (Alternative B) would tend to restore the Fund's capacity to its average historical level but would give more weight than may be warranted to the early years of the Fund's history, when it was not very active and, indeed, lacked the capacity to play an important role in solving the financial problems of the years following World War II. For these reasons, the average ratio of Fund size to imports for the decade 1961-70, when the Fund's resources were more ample relative to imports and payments imbalances, is also used as a "normative" reference ratio, which points to a more adequate Fund size than has been observed in recent years. This ratio is 5.3 per cent (Alternative C).

These three reference ratios are applied in Table 7 to two alternative projections of the volume of imports measured in SDRs based on the World Development Report 1981 published by the World Bank, supplemented by projections and assumptions with respect to the rise in import prices. These import projections are quite conservative; indeed, those in the "low growth" case may be regarded as pessimistic. The projections for 1985 of Scenario A of the World Economic Outlook, which place considerable emphasis on demand policies consistent with balance of payments adjustment, lie between the low-growth and high-growth projections of the World Bank for that year. 1/ The projected average annual rates of increase in the SDR value of imports from 1980 to 1985 are 11 per cent and 13 per cent under the low- and high-growth assumptions, respectively, and from 1985 to 1990 the corresponding figures are 10 and 12 per cent, compared with 17 per cent observed over the period from 1975 to 1980. The difference between the projections under low- and high-growth assumptions is slight for 1985, about 8 per cent; for 1990, it is 19 per cent.

These projections point to a size of the Fund in 1985 ranging between SDR 98 billion for Alternative A under the low-growth assumption and SDR 143 billion for Alternative C under the high-growth assumption. For 1990, the corresponding range is from SDR 152 billion to SDR 249 billion.

1/ (Continued from p. 28) procedure specified for SDR allocation. In some previous general quota reviews, some members were permitted to take up their quota increases, and pay their reserve asset subscriptions, in annual installments.
1/ The projections of the World Economic Outlook do not extend to 1990.

Table 7. Imports and the Size of the Fund, Actual 1980 and Projections to 1985 and 1990

(In billions of SDRs)

	World Imports 1/	Size of the Fund 2/ A (3.9 per cent)	B (4.3 per cent)	C (5.3 per cent)
1980	1,483	- - - - - - -	53	- - - - - - -
Projections				
1985				
Low growth	2,500	98	108	132
High growth	2,700	105	116	143
Average	2,600	101	112	138
1990				
Low growth	3,900	152	168	207
High growth	4,700	183	202	249
Average	4,300	168	185	228

1/ Projections of imports are based on the estimates contained in the World Bank's World Development Report 1981 (Table 2.2, p. 11), where world exports of goods and nonfactor services are projected to grow annually from 1980 to 1985 by between 3.5 per cent (low case) and 5.0 per cent (high case), and from 1985 to 1990 by between 3.8 per cent and 6.4 per cent. These estimates have been combined with assumptions about the annual increase in import unit values in SDRs as follows: 1980-81, 10 per cent; 1981-82, 7.5 per cent; thereafter decreasing by one half of 1 percentage point per year to 6 per cent for 1984-85; then continuing to decrease by one quarter of 1 percentage point per year to 4.75 per cent for 1989-90 and 4.50 per cent for 1990-91.

In the "World Economic Outlook" (ID/81/8, 8/24/81), the projection of world imports for 1985 that underlies scenario A (the "central" scenario) falls between the low-growth and high-growth projections in this table. The assumed increases in import unit values are the same as those given above.

2/ Projections of the size of the Fund are based on extrapolations of the following historical ratios of Fund size to world imports: A - 1971-80 average; B - 1950-80 average; and C - 1961-70 average.

These projections do not by themselves indicate the quota increases and related measures that would be required to bring about any desired expansion in the size of the Fund. This topic is taken up in the following subsection.

Hypothetical compositions of the size of the Fund in 1985 and 1990

The Fund's capacity to provide finance to its members can be expanded in a number of alternative ways. The decision to increase quotas so as to achieve a certain desired expansion in the size of the Fund is thus related to decisions with respect to other matters, chiefly the size of Fund borrowing and of SDR allocations. The interdependence of these decisions is illustrated in Table 8 on the basis of projected Fund sizes under Alternatives A, B, and C corresponding to the averages between the low-growth and high-growth assumptions shown in Table 7.

Many different combinations of the major components determining the size of the Fund are possible, and the four illustrative cases presented in Table 8 are more or less arbitrary selections. As a benchmark configuration (case I), it is assumed that the relative importance of these components would remain unchanged at their distribution as of the end of 1981 (see Table 3 above). This distribution reflects both the SDR allocation at the beginning of 1981 and the borrowing arrangements concluded in the course of 1981; it thus represents the "present situation." In implying proportional growth in the Trust Fund and in borrowing arrangements, case I is quite unrealistic, because of the termination of the Trust Fund in 1981 and, even more, because of the general position regarding Fund borrowing as merely bridging any resource gap existing before the quotas decided in the Eighth General Review become effective. This case is selected solely to serve as a comparator facilitating the assessment of differential effects of changing the assumptions. In the remaining cases II, III, and IV, it is assumed instead that there would be no reliance on borrowing arrangements from 1985 on, after the Eighth-Review quotas have become effective, except that the amount of the GAB is maintained at the present level. This would not mean, of course, that outstanding amounts under existing borrowing arrangements would be repaid before scheduled maturity. 1/ It would mean, however, that except for the GAB, they would not be renewed or replaced by similar arrangements, so that they would no longer add to the Fund's capacity to provide finance once the Eighth-Review quotas are in place. Similarly, it is assumed in these cases that there would be no further expansion in arrangements similar to the Trust Fund. In case II, the remaining components--quota and SDR resources--are assumed to maintain their distribution of end-1981. In case III, it is assumed that there would be no new SDR allocations in the 1980s. Case IV reverses this assumption by postulating what by comparison with case II is here called "larger" SDR allocations, i.e., allocations

1/ Amounts remaining outstanding in 1985 under various Fund borrowing arrangements (including GAB, SFF, and EAR) may exceed the total amount of these arrangements as of the end of 1981 shown in Table 3 (SDR 17 billion).

Table 8. Alternative Hypothetical Compositions of the Size of the Fund and Corresponding Quotas and SDR Allocations, 1985 and 1990 1/

(In billions of SDRs)

	I Equiproportional Expansion		II Expansion Limited to Quota and SDR Resources		III As in II, and No SDR Allocations		IV As in II, and Larger SDR Allocations 2/	
	1985	1990	1985	1990	1985	1990	1985	1990
				Alternative A				
Size of the Fund	101	168	101	168	101	168	101	168
Contribution to the size of the Fund of								
Quota resources (excluding gold)	53	88	75	128	84	151	70	116
Borrowing arrangements 3/	29	49	3*	3*	3*	3*	3*	3*
SDR Department	14	23	20	34	11*	11*	25*	46*
Trust Fund-like schemes	5	8	3*	3*	3*	3*	3*	3*
Corresponding aggregates:								
Quota increases paid								
Wholly in own currencies								
Quotas 4/	106	176	150	256	168	302	140	232
SDR allocations								
Cumulative 5/	28	46	40	68	21*	21*	50*	92*
Annual 6/	1.7	3.6	4.7	5.6	--*	--*	7.1*	8.4*
25 per cent in SDRs								
Quotas 7/	97	153	132	217	8/	8/	124	198
SDR allocations: cumulative 9/	37	69	58	107	8/	8/	66	126
				Alternative B				
Size of the Fund	112	185	112	185	112	185	112	185
Contribution to the size of the Fund of								
Quota resources (excluding gold)	59	97	84	142	95	168	78	128
Borrowing arrangements 3/	32	53	3*	3*	3*	3*	3*	3*
SDR Department	15	26	22	37	11*	11*	28*	51*
Trust Fund-like schemes	6	9	3*	3*	3*	3*	3*	3*
Corresponding aggregates:								
Quota increases paid								
Wholly in own currencies								
Quotas 4/	118	194	168	284	190	336	156	256
SDR allocations								
Cumulative 5/	30	52	44	74	21*	21*	56*	101*
Annual 6/	2.2	4.4	5.7	6.0	--*	--*	8.6*	9.0*
25 per cent in SDRs								
Quotas 7/	107	167	147	239	8/	8/	137	217
SDR allocations: cumulative 9/	41	79	65	119	8/	8/	75	140

Footnotes at end of table, p. 33.

Table 8. Alternative Hypothetical Compositions of the Size of the Fund and Corresponding Quotas and SDR Allocations, 1985 and 1990 1/ (Concluded)

(In billions of SDRs)

	I Equiproportional Expansion		II Expansion Limited to Quota and SDR Resources		III As in II, and No SDR Allocations		IV As in II, and Larger SDR Allocations 2/	
	1985	1990	1985	1990	1985	1990	1985	1990
				Alternative C				
Size of the Fund	138	228	138	228	138	228	138	228
Contribution to the size of the Fund of								
Quota resources (excluding gold)	72	120	104	176	121	211	95	158
Borrowing arrangements 3/	40	66	3*	3*	3*	3*	3*	3*
SDR Department	19	31	28	46	11*	11*	37*	64*
Trust Fund-like schemes	7	11	3*	3*	3*	3*	3*	3*
Corresponding aggregates:								
Quota increases paid								
Wholly in own currencies								
Quotas 4/	144	240	208	352	242	422	190	316
SDR allocations								
Cumulative 5/	38	62	56	92	21*	21*	73*	127*
Annual 6/	4.2	4.8	8.7	7.2	—*	—*	13.0*	10.8*
25 per cent in SDRs								
Quotas 7/	127	204	179	294	8/	8/	164	265
SDR allocations: cumulative 9/	55	98	85	150	8/	8/	99	178

1/ These calculations are based on the composition of the sources of Fund-related resources at the end of 1981 (see Table 3, last column) and modifications thereof as indicated in the headings. Values that have been assumed so as to give effect to these modifications are marked by an asterisk (*); other values result from the equiproportional expansion of the remaining components that is required for achieving the indicated size of the Fund.

2/ Assuming annual SDR allocations that are 50 per cent larger than those shown for the respective alternatives under case II.

3/ In cases II, III, and IV, it is assumed that the contribution of borrowing arrangements will be limited to the existing GAB (one half of which is taken as usable at any particular time).

4/ Quotas that would make the contribution of quota resources to the size of the Fund equal to the value shown in that line; as explained in Section III above, this contribution equals one half of quotas.

5/ Cumulative SDR allocations that would make the contribution of the SDR Department to the size of the Fund equal to the value shown in that line; this contribution is one half of allocations.

6/ For the columns headed 1985, annual allocations are equal to the difference between the cumulative allocations shown and the 1981 cumulative allocations of SDR 21.4 billion, spread over four years (1982-85); for the columns headed 1990, they are equal to the difference between the 1990 and the 1985 cumulative allocations, spread over five years (1986-90).

7/ Under the assumptions stated in footnotes 4 and 5, an equal amount of quota resources would be generated by (a) a given quota increase paid entirely in members' own currencies or (b) a quota increase 80 per cent as large paid 25 per cent in SDRs and 75 per cent in members' own currencies. This line refers to the latter case.

8/ Without new SDR allocations, SDR holdings are not sufficient to allow subscription payments in SDRs equal to 25 per cent of the quota increase required under the assumptions of this case.

9/ To maintain the same proportionality between increases in quota resources and the SDR Department's contribution to the size of the Fund, an additional allocation of SDRs would be needed to cover all subscription payments in SDRs. These payments (and hence allocations) would be equal in amount to the corresponding reductions in the quota increases from what they would have been if subscriptions were paid entirely in members' own currencies. No annual average allocations are shown in this case, since the additional allocations required would not necessarily have to be made in equal annual installments.

50 per cent larger than those calculated for case II. The implications of the assumptions underlying these cases are discussed later in this section.

In the presentation of these illustrative cases, interest focuses on the various combinations of aggregate quotas and cumulative SDR allocations, as well as the implied annual allocations, that would achieve the assumed overall size of the Fund. These combinations are found in Table 8 in the lower part of the section for each of the three alternative Fund sizes shown, under the designation "corresponding aggregates." The results can be strongly affected by the assumption made about the media in which subscriptions for quota increases would be paid. 1/ Aggregates are thus shown for two opposite possibilities, namely, that payments are made wholly in members' own currencies or that 25 per cent of the new quota subscription is paid in SDRs. Because of the other assumptions made in constructing Table 8, particularly that 100 per cent of Fund holdings of SDRs and 50 per cent of Fund holdings of currencies are usable, any subscription payments in SDRs would be exactly matched by a reduction in the quota increase needed to achieve a given amount of available quota resources.

Equiproportional expansion from the end of 1981 of all components contributing to the Fund's capacity for providing finance to members (case I) would imply aggregate quotas in 1985, approximately at the time when the quotas decided in the Eighth General Review might enter into force, ranging from SDR 106 billion for Alternative A to SDR 144 billion for Alternative C if subscriptions are made entirely in members' own currencies and, correspondingly, from SDR 97 billion to SDR 127 billion if 25 per cent of the increase is subscribed in SDRs. For 1990, this range would extend from SDR 176 billion to SDR 240 billion for full currency subscriptions and from SDR 153 billion to SDR 204 billion for normal reserve asset subscriptions in SDRs. Annual SDR allocations over the four-year period 1982-85 would be just SDR 1.7 billion in Alternative A and SDR 4.2 billion in Alternative C, leading to cumulative allocations of SDR 28 billion to SDR 38 billion at the end of 1985, if subscriptions are paid in members' own currencies. 2/ With SDR subscriptions, cumulative allocations would, of course, have to be larger, SDR 37 billion under Alternative A and SDR 55 billion under Alternative C. At the end of 1990, cumulative allocations would be correspondingly higher. Fund borrowing arrangements would have to expand to some SDR 30 billion in 1985 and to about SDR 50 billion

1/ Article III, Section 3(a) provides that 25 per cent of an increase shall be paid in SDRs, but the Board of Governors may prescribe that this payment may be made, in whole or in part, in the currencies of other members specified or in the member's own currency.

2/ For the period up to 1985, four annual SDR allocations are assumed to take place, since the allocation at the beginning of 1981 is already history. For the period 1985-90, five annual allocations are assumed.

in 1990 under Alternative A and to much higher values under the other two alternatives. 1/

Case II shows the implications of the Fund relying chiefly on quota and SDR resources for achieving the postulated capacity to provide finance to members. Both quotas and SDR allocations are calculated to be substantially larger than in case I. With full currency subscription, quotas for 1985 range from SDR 150 billion in Alternative A to SDR 208 billion in Alternative C, and the corresponding annual SDR allocations would lie between SDR 4.7 billion and SDR 8.7 billion. With partial SDR subscription, needed quotas would be smaller, SDR 132 billion to SDR 179 billion, and cumulative SDR allocations would have to be correspondingly larger.

In the absence of further SDR allocations in the 1980s, quotas would have to be larger to achieve the same overall Fund size, as seen in case III, where quotas in 1985 are calculated to range from SDR 168 billion in Alternative A to SDR 242 billion in Alternative C. In this case, the full 25 per cent SDR subscription would not be possible, since cumulative allocations would not be large enough to permit these SDR payments. With "larger" SDR allocations, by contrast, smaller quotas would suffice to restore the Fund's capacity to the postulated levels. This is seen in case IV, where annual SDR allocations are assumed, in the absence of SDR subscription payments, to rise to between SDR 7 billion (Alternative A) and SDR 13 billion (Alternative C), with the effect that the range of calculated quotas is lower than in cases II and III, namely, SDR 140 billion in Alternative A and SDR 190 billion in Alternative C.

While the calculations for 1985 under cases II and III with full currency subscription indicate quota increases ranging from some 150 per cent (case II, Alternative A) to 300 per cent (case III, Alternative C), the calculations for 1990 suggest much more modest percentage increases from the calculated levels in 1985, generally between 70 and 80 per cent. The reason for this is that the calculated increases up to 1985 include a substantial element of "catching-up" with a level that would provide an adequate capacity of the Fund by the various historical standards that are examined in these illustrations. Once this level of adequacy has been achieved, further quota increases are here assumed to follow the trends in various relevant aggregates, for which imports have been taken as a proxy in this paper.

To repeat, the alternative configurations of quota increases, SDR allocations, and Fund borrowing--to name the principal elements--discussed above are merely illustrations of the interaction among decisions in these important areas. Different cases could be elaborated if that proved helpful to the discussion of these matters.

1/ To the extent that part of these arrangements is under the GAB, the total of required borrowing arrangements would be somewhat higher than the contributions shown in the table, since that contribution is assumed to be only one half of the amount of the GAB.

Supply of Fund-related reserve assets in the 1980s

The historical relationship between the use of the Fund and the amount of Fund-related reserve assets has been shown in Table 2 above, and the close association between the potential supply of these assets and the size of the Fund has been reviewed in Section III (see Table 3). The following discussion extends these relations to 1985 and 1990 on the basis of projections of the demand for non-gold reserves derived from estimates of the growth of imports (see also Table 7 above) and projections of the ratio of reserves to imports. 1/ When the low-growth case for imports is used as the base, total non-gold reserves are projected at SDR 540 billion for 1985 and SDR 780 billion for 1990; the corresponding figures for the high-growth case are SDR 570 billion and SDR 880 billion.

Alternative methods can be used to project the potential supply of Fund-related reserve assets in the coming decade. First, as noted before, 2/ the potential supply in recent years has always been about 7 per cent higher than the size of the Fund plus the book value of the Fund's gold holdings. On the assumption that this relationship will continue to hold, the potential supply of Fund-related reserves would amount, for example, under Alternative A, to SDR 112 billion in 1985 and SDR 184 billion in 1990 (see Table 9). The second method is to calculate the potential supply as the sum of SDR allocations, Fund borrowing arrangements, and 50 per cent of quotas (cf. Table 3, footnote 6). When the allocation, borrowing, and quota figures from the various cases in Table 8 are used for this calculation, the potential supply that emerges for Alternative A is in the range of SDR 108-123 billion for 1985 and SDR 175-211 billion for 1990, as shown in Table 9. 3/

The various projections covered in Table 9 can be put into perspective by comparing them with the current situation. At the end of 1981, the maximum for the supply of Fund-related reserves was equivalent to 20 per cent of international reserves excluding gold (Table 5). This ratio would experience little change by 1985 under Alternative A, while a modest or more substantial increase could occur under the illustrative conditions of Alternatives B and C, respectively. In all cases, some further increase in the ratio is shown in the projections to 1990. None of the ratios projected for that year, however, equals the 37 per cent that prevailed at the

1/ The projections, for countries other than the United States, reflect a growth in reserves amounting to 60 per cent of the rise in imports measured in constant prices (based on the actual 1973-81 relationships), inflated by the same price increases that have been assumed in converting the projected real imports to nominal values. For the United States, an increase of SDR 1 billion a year from an anticipated level of SDR 16 billion at the end of 1981 is assumed.

2/ See text, p. 19, and Table 3.

3/ These figures refer to the cases in which subscription payments are made wholly in members' own currencies. With 25 per cent of the subscription payments in SDRs, the corresponding ranges would be considerably higher, at SDR 159-184 billion in 1985 and SDR 266-314 billion for 1990.

Table 9. Projections of Total Non-Gold Reserves and Potential Supply of Fund-Related Reserves, End of 1985 and 1990

	Projections		Ratio of Potential Fund-Related to Total Reserves 1/	
	1985	1990	1985	1990
	(In billions of SDRs)		(In per cent)	
Total non-gold reserves				
With low import growth	540	780		
With high import growth	570	880		
Average	555	830		
			Alternative A 2/	
Potential supply of Fund-related reserves				
Method 1 3/	112	184	20	22
Method 2 4/				
Case I	110	183	20	22
Case II	118	199	21	24
Case III	108	175	19	21
Case IV	123	211	22	25
			Alternative B 2/	
Potential supply of Fund-related reserves				
Method 1 3/	124	202	22	24
Method 2 4/				
Case I	121	202	22	24
Case II	131	219	24	26
Case III	119	192	21	23
Case IV	137	232	25	28
			Alternative C 2/	
Potential supply of Fund-related reserves				
Method 1 3/	152	248	27	30
Method 2 4/				
Case I	150	248	27	30
Case II	163	271	29	33
Case III	145	235	26	28
Case IV	171	288	31	35

1/ The ratio is based on the average of the projections of non-gold reserves with low and high import growth.
2/ The alternatives are those for different sizes of the Fund, as shown in Table 8.
3/ Sum of the size of the Fund and Fund gold holdings at book value, raised by 7 per cent.
4/ Sum of SDR allocations, Fund borrowing arrangements, and 50 per cent of quotas, as shown for the respective cases with quota increases paid wholly in own currencies in Table 8.

end of 1970. It must be recalled, of course, that actual Fund-related reserves are only a fraction--at present about half--of the calculated maximum. If that relationship continued to hold, the smaller of the possible rises in the calculated maximum for Fund-related reserves relative to total non-gold reserves (Alternative A) would produce only a negligible increase in the role of Fund-related assets in members' total reserve holding during the coming decade. This result could be affected by a change in the size of the Fund that was substantially different from the ones projected in these illustrative figures; by subscription payments partly in SDRs allocated for that purpose; by a different emphasis on SDR allocation and Fund borrowing in comparison with quota increases, with a tendency for quota increases to give rise to a smaller amount of reserves; or by a combination of two or more of these possibilities.

Further considerations

The extrapolations presented in this section must be supplemented by more general reflections on the role that the Fund should play in the future international monetary system. In this paper, these reflections are confined to the financial functions of the Fund. They can be focused on three questions. First, what part of the total financial intermediation between surplus and deficit countries should be undertaken by the Fund and what portion of world reserves should be provided in the form of Fund-related assets (SDRs and SDR-denominated claims on the Fund)? Second, what is the proper balance in the provision of finance and reserves between the General Department and the SDR Department? And third, within the General Department, what should be the relative emphasis on quota resources and arrangements for Fund borrowing?

As regards the first of these questions, it is widely held that the Fund should be ready to assist in the transfer of a certain part of the earnings of members in surplus to members in deficit because this provides a useful supplement--often at lower cost--to financial intermediation through existing channels in circumstances calling for financing under adequate conditionality. Restricting the financial activities of the Fund to those of a lender of last resort, which provides finance only when all other sources fail, would seem to cast too narrow a role for it. Members are being encouraged, as a matter of principle laid down in Article I, to seek Fund support at an early stage of evolving payments difficulties to afford them an opportunity to correct maladjustments before their problems become intractable. 1/ At that stage, they may still have access to international credit from commercial sources. Reliance upon these flows has enabled some members to delay, sometimes for excessively long periods, the needed domestic and external adjustment. In such circumstances, commercial

1/ Article I provides in part: "The purposes of the International Monetary Fund are: ...(v) To give confidence to members by making the general resources of the Fund temporarily available to them under adequate safeguards, thus providing them with the opportunity to correct maladjustments in their balance of payments without resorting to measures destructive of national or international prosperity."

flows often decline abruptly, with the result that the Fund has been called upon to provide its resources in circumstances of crisis requiring severe adjustment programs. Early access to the Fund, with parallel borrowing from commercial sources, would give assurance to the member and to the international community of continued flows of funds in the context of well-designed and effectively implemented financial policies. Such an approach would help to avoid delays in the adoption by members of needed adjustment action, the need for the Fund to step into crisis situations, and the adverse effects of volatility in commercial lending.

The principle of early Fund support implies that the Fund should stand ready to provide finance for a part of members' payments imbalances. It is for consideration whether the Fund's capacity to provide finance relative to the total of imbalances to be financed should in future be strengthened, so as to encourage members' efforts to design effective adjustment programs requiring temporary financial support. If such a strengthening is desired, consideration should be directed to those calculations that are based on relations between Fund size and payments imbalances (as measured by imports) during past periods when the Fund's capacity to accomplish its tasks was more adequate than in recent years. This would focus attention on Alternatives B and C shown in Table 8 above.

Whereas the Fund ordinarily supplements other channels in providing balance of payments finance in the manner just described, it would also have to serve the international community as the lender of last resort in a crisis of the international monetary system. In contrast with the Fund's role in supporting ordinary adjustment programs on a regularly revolving basis, the function as lender of last resort to the system does not require that a specific volume of resources be regularly available but rather that resources can be mobilized on a large scale in the event of a threat to the functioning of the system. 1/ A large gap between the Fund's capacity to provide finance and the actual amount outstanding--in other words, between the size and the use of the Fund--can give some assurance that additional finance could be made available quickly when needed. The rise in the ratio of the use of the Fund to its size in recent years (see p. 18 above) indicates, therefore, some decline in the Fund's "spare capacity" to step in as the lender of last resort. There may, of course, be circumstances under which exercise of this function would require resources beyond the Fund's existing capacity to finance payments imbalances; these could be generated through supplementary (and perhaps temporary 2/) SDR allocations and extension of existing borrowing arrangements, both of which can probably be accomplished faster than general quota increases.

1/ This role of the Fund was addressed in the establishment of the GAB in 1962, which provide supplementary resources when they are "needed to forestall or cope with an impairment of the international monetary system" (Decision No. 1289-62/1, adopted January 5, 1962).

2/ Temporary SDR allocations could be achieved through decisions to allocate SDRs linked with decisions to cancel them at a specified later date.

As regards the portion of world reserves to be supplied in the form of Fund-related assets, the objective stated in the Articles of Agreement of making the SDR the principal reserve asset in the international monetary system requires not only the availability of SDR-denominated international credit but also an adequately growing supply of SDRs. As has been shown earlier in this paper, the provision of Fund-related reserve assets is closely linked to the actual or potential provision of finance and to the balance in the expansion of resources between those available through the Fund's General Department and those generated through SDR allocation. This brings up the second of the three questions raised above.

It has become customary to regard an increase in quotas, perhaps supplemented by Fund borrowing, as augmenting conditional liquidity--that is to say, the capacity for providing finance to members when needed and warranted by the economic programs proposed by them--and to associate an allocation of SDRs with the provision of unconditional liquidity, i.e., reserves. There is, however, a close connection between these two financial tasks of the Fund. It is, clearly, not possible to furnish "reserves" to a country without also providing finance that can be used at the discretion of the country's authorities; nor can the Fund extend net credit to the membership as a whole 1/ without generating reserve claims on the Fund.

As regards the provision of reserve assets, there are substantial similarities between the functioning of the SDR Department and the General Department. The reserve assets provided--SDRs and reserve positions in the Fund--can both be used unconditionally, and this is indeed one of the properties justifying their inclusion in countries' reserves. The functioning of these two Departments differs, however, in the circumstances surrounding the provision of finance: SDR allocations provide unconditional finance, while the resources available through the Fund's General Department to a large extent furnish conditional finance in support of carefully elaborated adjustment programs. This difference also has implications for the timing of Fund-related finance: resources provided through the SDR Department are available immediately upon the allocation of SDRs, whereas resources stemming from quota increases and extensions of borrowing arrangements are made available to members as needed in the light of world economic conditions, as well as their individual circumstances. Conditional lending by the Fund thus affords greater flexibility both in adjusting the flow of resources to the needs of the world economy and in directing that flow to economies needing and meriting support. At the present stage of the world economy, overriding importance attaches to the strengthening of the adjustment process, as more fully discussed in the World Economic Outlook of June 1981, and for this reason provision of adequate resources for supporting adjustment programs must command close attention. SDR allocation (or cancellation), by contrast, is better suited for rapid augmentation (or reduction) of members' aggregate

1/ Fund credit extended to an individual member may be offset, in its effect on reserve positions, by repayment of credit previously extended to another member.

noncurrency reserves, if such changes are deemed to be warranted. The conditions under which this is the case are set out in Article XVIII and have been discussed in a number of recent papers on SDR allocation. There are also important differences between the General Department and the SDR Department in the cost to members of the finance and the reserves provided through these two channels--a topic on which comment will be made at the end of this section.

Turning to the last of the three questions posed above--on the extent to which the resources needed for the operations of the General Department should be provided through quota increases and through Fund borrowing--the widespread consensus on quota increases as the main source of funds has already been noted in Section II. Four points may be added here.

First, while the difference in economic effect between using quota resources and borrowed funds is not a fundamental one, the use of quota resources has the advantage of flexibility. From the point of view of securing access to resources, a quota increase is the equivalent of an extension of borrowing arrangements with all members, each to be activated if and when the member in question is in a sufficiently strong balance of payments and reserve position. This type of arrangement can, in principle, give larger access to resources than a set of borrowing arrangements with only a few members. Moreover, securing the Fund's access to resources through a general quota increase, which potentially taps the resources of all members, accords with the cooperative nature of the intergovernmental financial relations conducted in, and through, the Fund. Nevertheless, there may at times be reason for supplementing quota resources through borrowing arrangements if, as is the case at present, the distribution of quotas of major surplus countries differs significantly from the distribution of the surpluses themselves.

The second point concerns the use of borrowing to bridge a resource gap prior to adjustment of quotas. Borrowing arrangements recommend themselves in this context because they can be concluded more rapidly than general quota reviews. For this reason, recourse to borrowing may be difficult to avoid in the time span between general quota reviews (unless it were decided to increment quotas annually) or even following a general review that raised quotas insufficiently relative to the longer-run trend in the required capacity of the Fund. One problem with Fund borrowing to bridge a resource gap of this kind may be that it cannot easily be reversed when the anticipated quota increase takes place.

Third, Fund borrowing may be inevitable if members' access to the Fund's resources is large relative to their quotas. In this situation, a general quota increase will not provide a better balance between available resources and the requirements of the Fund's lending program, both of which will rise in step, at least in the longer run. The balance can be redressed by borrowing, however, since this furnishes resources without increasing the calls on them. The balance of available and required resources can, of course, also be affected by an alteration of members' access to the Fund's resources in relation to quotas. For instance, when the quotas decided in the Seventh Review became effective in November 1980, members' access to the Fund over a three-year period was reduced from 600 per cent to 450 per cent of quota. If Fund borrowing is seen mainly as a bridging operation, as discussed above, a similar reduction in the percentage of members' access to the Fund would be indicated when the quotas decided in the Eighth General Review become effective, so as to adjust the financial balance of the Fund to a reduced reliance on borrowing arrangements.

Fourth, as already mentioned earlier, borrowing arrangements have for some time--since the establishment of the GAB in 1962--been considered an appropriate form of securing access to resources for the exercise of the function of lender of last resort in a crisis of the international monetary system. Borrowing arrangements will, of course, serve this purpose only to the extent that they are unused at the time they are needed. Arrangements intended for this purpose should accordingly be kept in place without being drawn upon until the situation for which they are designed has arisen.

Borrowing arrangements are not typically classified as to the precise purpose for which resources may be transferred under them. For this reason, existing arrangements may be thought of as serving a combination of the purposes listed above, viz., to offset a lack of correspondence between the distribution of quotas and of payments surpluses, to bridge a resource gap between successive quota increases, to increase the available resources without at the same time increasing members' recourse to them under tranche policies and special drawing facilities, and to secure access to resources in the event of an impairment of the international monetary system. While these separate considerations should be kept in mind, it is neither necessary nor useful to attempt a quantitative assessment of the need for Fund borrowing under any of these headings in the years immediately ahead.

Finally, there is one aspect of all of these alternative configurations--borrowing arrangements versus quota increases, General Department versus SDR Department, and Fund versus private markets--that is of crucial importance to members, namely, cost. Resources stemming from quota subscription have been less costly than those borrowed from members, and this is a further advantage, in addition to flexibility, of obtaining funds through quota subscriptions. It should be considered, however, that this cost difference is not a necessary feature and may well be related to the circumstance that most borrowing arrangements were made at a time of rising interest rates. Use of quota resources has also been less costly than use of SDRs, a consequence of the structure of Fund charges and interest rates. For members considering the alternatives of borrowing from the Fund and using SDRs, this difference is offset, or perhaps more than offset, by the conditionality attached to a considerable part of the use of the Fund's resources. It is important, however, that the cost of using the Fund in any form (quota-related or borrowed resources, Trust Fund loans, or use of SDRs) has been lower than the cost of recourse to the international credit markets. These cost relations, and the conditionality factors modifying them, are important elements in coming to decisions on the size of the Fund and its composition.

VI. Topics for Discussion

An assessment of the appropriate size of the Fund in the 1980s must be based on an evaluation of developments to date. This paper has illustrated certain clear trends occurring over the past 20 years, namely, a decline in the size of the Fund relative to members' payments imbalances, an even sharper decline in the actual and potential role of quota-based resources in the financing of these imbalances, and an increasing reliance on Fund borrowing and other nonquota-based resources. (See also the historical overview on pp. 26-27.) Directors may wish to present their interpretation of these historical trends and comment on the usefulness for their own analysis of the conceptual framework developed in this paper, which is intended to permit direct comparison of the contribution of various Fund programs and activities to the achievement of the Fund's financial tasks of providing balance of payments finance and reserve assets to members as needed.

In commenting on the projections for the 1980s, Directors may wish to give primary emphasis to the appropriate evolution of aggregate Fund quotas by 1985. They may, however, find it convenient to review the assumptions that should be made with respect to the development of other components of the Fund's capacity to provide finance and reserve assets to members, in order to illustrate the overall setting they envisage for the quota increases to be decided under the Eighth General Review.

In addition to the quantitative material relevant to judgments as to the appropriate size of the Fund and of quota increases in the 1980s, this paper has discussed a number of important considerations of a qualitative character that bear upon these judgments. Directors may wish to indicate their evaluation of such qualitative matters, including some of those of a more political character that have not been addressed in the paper.

Directors may wish to comment on the range of quota increases illustrated in Table 8 for 1985--i.e., for the beginning of the period to be served by the quotas decided in the Eighth General Review--under the assumption that borrowing arrangements other than the GAB would be phased out once the Eighth-Review quotas will be in effect and would thus provide no additional resources in the second half of the 1980s. For quota subscriptions paid entirely in members' own currencies, this range extends from SDR 150 billion to SDR 208 billion if quota increases are accompanied by commensurate SDR allocations (some SDR 5-9 billion per year). If quota subscriptions were in part paid in SDRs, calculated quotas would be somewhat smaller but SDR allocations would have to be correspondingly larger. If no SDR allocations were to be made between now and 1985, the quotas needed to phase out Fund borrowing would fall in the range from SDR 168 billion to SDR 242 billion. The lower end of each of these ranges corresponds to mere maintenance of the Fund's capacity to perform its functions at the level of the 1970s, while the upper end would be consistent with restoring the Fund's capacity relative to the size of its tasks to the level that prevailed in the 1960s. Directors may want to indicate the quantitative effects of the various considerations and emphases they would wish to bring to bear on these projections.

With regard to technical matters, Directors may wish to comment on the question of annual quota increments decided at quinquennial intervals and on the related question of the use of Fund borrowing for bridging a gap in the Fund's access to resources between quota reviews.

Table 10. Payments Imbalances, Imports, Size of the Fund, and Quotas, 1956-80 1/

	Annual Averages									
	1956-61	1962-65	1966-70	1971-75	1976-80	1976	1977	1978	1979	1980
					(In billions of SDRs)					
Payments imbalances										
Current account 2/										
111 countries	...	20	26	76	145	106	125	129	145	222
92 members	...	18	25	70	133	94	115	119	133	204
50 members	14	16	21	50	90	70	79	92	88	121
Overall balance 3/										
111 countries	...	8	16	52	78	50	91	97	74	80
92 members	...	8	15	49	74	46	87	90	70	77
50 members	7	7	13	38	55	33	72	69	48	56
Merchandise imports										
111 countries	107	149	227	474	1,026	767	873	942	1,149	1,401
92 members	102	141	217	452	975	731	830	893	1,093	1,330
50 members	89	126	196	406	860	652	732	786	969	1,162
Size of the Fund	4	9	12	21	36	27	27	32	40	53
Quotas										
92 members	...	...	21	27	36	27	27	36	36	54
50 members	10	13	19	24	31	24	24	31	31	46
					(In per cent)					
Ratios 4/										
Size of the Fund to imbalances										
Current account (111 countries)	...	44	47	28	24	25	22	24	27	24
Overall balance (111 countries)	...	105	78	41	45	53	30	33	54	66
Quotas to current account										
92 members	...	...	81	38	27	29	24	30	27	27
50 members	71	84	90	48	35	34	30	34	35	38
Quotas to overall balance										
92 members	...	...	139	55	49	60	31	40	52	70
50 members	143	195	141	64	56	73	33	45	65	83
Quotas to imports										
92 members	...	...	10	6	4	4	3	4	3	4
50 members	11	10	10	6	4	4	3	4	3	4
Current account to imports										
111 countries	...	13	12	16	14	14	14	14	13	16
92 members	...	13	12	15	14	13	14	13	12	15
50 members	16	13	11	12	10	11	11	12	9	10
Overall balance to imports										
111 countries	...	5	7	11	8	7	10	10	6	6
92 members	...	6	7	11	8	6	10	10	6	6
50 members	8	5	7	9	6	5	10	9	5	5

1/ The sums of payments imbalances and the data on imports are for the years shown, while figures on the size of the Fund and quotas are for the end of corresponding years. When the values of stocks and flows are rising over time, ratios of year-end stocks to annual flows tend to be somewhat higher than the ratios of synchronized stocks and flows (e.g., annual average stocks and annual flows).

2/ Net balances on account of merchandise trade, services, and private transfers are summed for the indicated countries without regard to sign.

3/ Net balances on current and capital account, official transfers, and net errors and omissions are summed for the indicated countries without regard to sign.

4/ Ratios are calculated from unrounded figures.

Table 11. Historical Series of Principal Data, 1950-81 1/

(In billions of SDRs)

	"Use of the Fund"	Supply of Fund-Related Reserves	Size of the Fund	Potential Supply of Fund-Related Reserves	Fund Quotas	Cumulative Allocations of SDRs	International Reserves (Excluding Gold)	World Imports	Payments Imbalances (111 Countries)	
									Current account	Overall balances
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1950	0.2	1.7	2.8	4.0	8.0	—	15.0	60.1	...	...
1951	0.2	1.7	2.9	4.1	8.1	—	15.2	83.1	...	...
1952	0.2	1.8	2.8	4.4	8.7	—	15.8	82.0	...	...
1953	0.2	1.9	3.1	4.4	8.7	—	17.2	77.8	...	...
1954	0.1	1.8	3.1	4.4	8.7	—	18.3	81.1	...	...
1955	0.1	1.9	3.1	4.4	8.8	—	18.6	91.0	...	...
1956	0.4	2.3	2.9	4.5	8.9	—	20.0	100.1	...	...
1957	1.0	2.3	3.3	4.5	9.0	—	19.4	110.1	...	...
1958	1.1	2.6	3.3	4.6	9.2	—	19.7	102.6	...	...
1959	0.4	3.2	5.0	7.0	14.0	—	19.4	108.9	...	...
1960	0.4	3.6	5.1	7.4	14.7	—	22.1	122.0	...	...
1961	0.4	4.2	5.4	7.5	15.0	—	23.3	127.7	...	...
1962	1.0	3.8	8.4	10.6	15.2	—	23.7	134.8	16.9	8.3
1963	1.1	3.9	8.5	10.8	15.6	—	26.6	146.6	17.6	8.8
1964	1.4	4.2	8.8	11.0	15.8	—	28.4	163.1	19.4	8.6
1965	3.0	5.4	9.0	11.1	16.0	—	29.4	177.2	24.2	7.3
1966	3.0	6.3	11.0	13.4	20.6	—	32.0	194.9	21.7	6.2
1967	2.5	5.7	11.1	13.5	21.0	—	35.1	204.3	22.9	10.1
1968	3.7	6.5	11.4	13.6	21.2	—	39.1	227.5	24.4	16.6
1969	4.0	6.7	11.6	13.7	21.3	—	39.8	259.3	29.5	13.9
1970	3.9	10.8	16.7	20.7	28.4	3.4	56.3	298.4	32.3	32.1
1971	2.8	12.2	18.0	23.7	28.8	6.4	87.2	332.8	39.5	73.6
1972	3.1	15.0	19.5	26.9	29.2	9.3	111.0	360.4	38.7	42.2
1973	3.3	15.0	19.5	26.7	29.2	9.3	116.7	452.4	46.2	38.7
1974	6.0	17.7	22.5	29.7	29.2	9.3	144.2	657.0	137.4	61.2
1975	9.9	21.4	25.6	32.8	29.2	9.3	158.8	674.5	117.0	43.2
1976	15.3	26.4	26.6	33.8	29.2	9.3	186.7	803.9	105.9	50.4
1977	16.0	26.2	27.1	33.7	29.2	9.3	228.5	916.6	124.9	90.6
1978	14.3	22.9	31.6	37.3	39.0	9.3	245.4	992.7	129.1	97.2
1979	12.7	24.2	39.9	46.8	39.0	13.3	272.2	1,211.7	145.3	73.7
1980	18.2	28.6	52.6	60.3	59.6	17.4	323.6	1,482.7	221.6	80.1
1981	23.1	37.7	59.5	69.0	60.7	21.4	341.4	...	...	...

1/ These series correspond to the figures appearing, for selected years, in the text tables as follows: columns (1) and (2), Table 2; columns (3) and (4), Table 3; column (8), Table 6; and columns (9) and (10), Table 4. Columns (1) through (7) refer to the position at year-ends, whereas columns (8), (9), and (10) are annual flows for the years shown.