

DOCUMENT OF INTERNATIONAL MONETARY FUND AND NOT FOR PUBLIC USE

EB/CQuota/82/2

March 12, 1982

To: Members of the Executive Board
From: The Secretary
Subject: Size of the Fund in the 1980s - Further Considerations

The attached paper on the size of the Fund in the 1980s will be taken up for consideration by the Committee of the Whole on Review of Quotas at a meeting scheduled for Friday, April 16, 1982.

Att: (1)

Other Distribution:
Department Heads

1. The first part of the paper is devoted to the study of the properties of the function $f(x)$ defined by the equation

$$f(x) = \int_0^x \frac{1}{1+t^2} dt$$

2.

3.

$$f(x) = \int_0^x \frac{1}{1+t^2} dt$$

4.

5.

6.

$$f(x) = \int_0^x \frac{1}{1+t^2} dt$$

7.

8.

$$f(x) = \int_0^x \frac{1}{1+t^2} dt$$

$$f(x) = \int_0^x \frac{1}{1+t^2} dt$$

$$f(x) = \int_0^x \frac{1}{1+t^2} dt$$

9.

$$f(x) = \int_0^x \frac{1}{1+t^2} dt$$

10.

11.

INTERNATIONAL MONETARY FUND

Size of the Fund in the 1980s--Further Considerations

Prepared by the Research Department

(In consultation with other departments)

Approved by Wm. C. Hood

March 12, 1982

I. Introduction

This paper has been prepared in response to the previous discussion on the size of the Fund at Meetings 5-8, December 18 and 21, 1981, of the Committee of the Whole on Review of Quotas. In summing up that discussion, the Chairman's conclusions included the following statement, which forms the terms of reference for the paper:

... A number of Directors said that they felt that the staff paper was too historical, because it relies on the consideration of past relationships between imports and the various other elements of the size of the Fund; too mechanical, because it does not question the foundations of the past relationships and merely extrapolates them into the period ahead; and too abstract, because the future has been looked at in rather global terms, in the light of what we consider to be the likely evolution of world trade, and not in terms of the probable balance of payments developments based on an analysis of individual countries and groups of countries. We will certainly take this reaction into account in our future work.

One of the main themes of Executive Directors' comments on the substance of the staff paper is that, at the present stage of the quota review, it is not so much the size of the Fund but the role of the Fund in the 1980s that really matters. In other words, the Executive Directors wish management and staff to report on the types of functions and the likely needs and uses of the Fund in the 1980s to enable the Executive Board to determine an appropriate size for the Fund as a corollary. In order to ascertain the role, and hence the size, of the Fund in the 1980s, we should ... be focusing on three elements, namely, the functions of the Fund, the general environment in which the Fund is likely to operate in the years ahead, and the scale of the possible use of Fund resources. ^{1/}

^{1/} Buff 81/231, December 28, 1981.

The basis for the discussion at the meetings referred to above was a paper on "The Size of the Fund in the 1980s" (EB/CQuota/81/3, December 2, 1981), which is being reissued with some technical refinements and methodological improvements. That paper presents an integrated method for quantifying the Fund's potential, both for easing the adjustment process by financing deficits and for creating reserve assets as and when the need arises. Under this method, relationships for several historical periods are established between the size of the Fund, on the one hand, and proxies intended to reflect the magnitude of the problems with which the Fund may be called on to cope, on the other hand. The proxies are then projected into the future, and the associated size of the Fund is deduced from relationships that existed in several past periods. Finally, the elements of the Fund's overall size--mainly quotas, borrowing, and SDR allocations--are broken out separately on the basis of various assumptions.

The approach adopted in this previous paper for the most part deals indirectly rather than explicitly with the concrete questions about the role of the Fund and the evolution of the world economy. Furthermore, it offers a rather wide range of possibilities for consideration; for example, the use of the relationships prevailing in three historical periods can be taken as suggestive of different roles that the Fund might assume in the future. No conclusion is drawn in this connection, however, about the efficiency of intermediation through the private banking system in the coming period or the desirability of an increase or decrease in the part played by the Fund. In the same vein, it has been noted that a major factor influencing the Fund's role is the propensity of members to avail themselves of Fund financing; the historical relationships may be seen as representing various intensities of use of Fund resources, even though no explicit assumption about members' propensity has been incorporated in the projections. Indeed, the projection of the Fund's functions beyond the short to medium term, at least insofar as these functions depend on the initiatives of the Fund in making resources available and of its members in using those resources, is more a matter of judgment than an analytic exercise.

Some possibilities nonetheless exist for exploring the appropriate size of the Fund, and in particular the size of quotas, through a more direct technique. That exercise becomes more manageable when it is conducted in two stages. First, a quota size that is suitable under present circumstances and for the fairly near future can be determined. Second, that base figure can be adapted to take account of further developments, including modifications in Fund policies, that are expected to occur during the remainder of the period for which the new quotas are intended to serve. Implementation of the first step is not likely to prove unduly difficult or controversial, as most of the facts are already known, the projections required are only for the fairly short term, and the necessary assumptions have previously been considered and rather widely agreed. The second step, however, is almost wholly judgmental, as it deals with a period beyond that for which sound projections about the economic environment can be made and for which agreement on the functions of the Fund has been reached.

Some of the important factors that greatly assist in the establishment of a notional quota figure which could be regarded as adequate up to approximately the time of the next quota increase may be mentioned. One key decision is the strong emphasis that is to be given in the foreseeable future to the use of quota increases rather than borrowed funds in securing resources for the Fund's lending operations. The desired scale of Fund operations is also apparent, in that a number of Executive Directors consider that the policy of limiting drawings over three years to 450 per cent of present quotas should be maintained as a useful yardstick, which provides a perception of members' needs in the early 1980s. A third crucial area that has already been exhaustively examined by the Executive Board, in the context of the Fund's liquidity and financing needs, is the size of the Fund's borrowing requirement, which has been projected through end-April 1984 on the basis (insofar as possible) of the best country-by-country estimates currently available. The implementation of this first stage is described in Section II.

The second stage envisaged has the purpose of adjusting and extrapolating the base figure derived in the first stage. Unless the Fund's activities are assumed to level off at the absolute amount reached at end-April 1984 or any further increase in those activities is expected once again to be financed through recourse to borrowing, a quota increase above the base figure would be required. In Section III, indications are given of what can be foreseen about the economic environment in the period beyond 1984 and considerations relating to the functioning of the Fund in that environment are adduced. Section IV deals with a number of further elements entering into the decision on the size of quotas under the Eighth Review.

A final section presents a synthesis of the foregoing considerations and summarizes their implications for the size of quotas in the latter half of the 1980s.

II. Size of Quotas Needed Under Current Conditions

Quota size deduced from borrowing need

The Executive Directors have been keeping the Fund's borrowing requirements under continuous review. On the most recent occasion when the matter was discussed (EBM/81/155, December 11, 1981), the Chairman's summing up (Buff 81/226, December 22, 1981) included the following appraisal:

... If you look at the figures on the Fund's borrowing need under the policy on enlarged access on the basis of the best country-by-country estimates we have, you will see that, in the period up to end-April 1984, it could increase to SDR 18.6 billion. That figure is the product of very careful estimation work by the staff. The amount of SDR 18.6 billion does not cover either non-oil developing countries with quotas above SDR 800 million, or industrial countries, some of which are in deficit and are in an extremely difficult situation. Therefore, on top of this SDR 18.6 billion, we should add a

provision for borrowing to finance the possible use of Fund resources by industrial countries and large non-oil developing countries. This provision should, in our view, amount to SDR 12 billion, which is consistent with the SDR 15 billion reserve or safety margin noted in the staff report, of which SDR 3 billion could come from the GAB. In addition, we will still have outstanding in April 1984 SDR 7.1 billion in loans under the supplementary financing facility. You see that these three figures total SDR 37.7 billion, or a little more than 60 per cent of total quotas.

Is the addition of an SDR 12 billion safety margin on borrowing unduly pessimistic? I will tell you frankly, I do not think so. Resources of that magnitude would be needed if a big country in Latin America, a large country in Asia and a medium-sized country in Europe encountered difficulties and had to approach the Fund. Of course, if more than one European country needed the Fund's help, things would be worse.

We did not arrive at the figure of SDR 12 billion on the basis of a country-by-country analysis. However, in these very difficult times this institution cannot rule out the possibility that in the coming three years the kind of problems I have noted will occur. We should be especially careful not to underestimate the amounts because we expect to have in the Fund new members in the near future, and one of them, as you well know, is in great difficulty; we have not provided any specific amount for that case.

The figure of SDR 37.7 billion which I have given you is not an absolute certainty; it is based on a number of hypotheses and assumptions, and considerable uncertainties are naturally involved. But it is the amount of usable financial resources that the Fund may well need if it is to serve its purposes and meet the needs of its members. That is why ... I will say that in my judgment and in the judgment of the Deputy Managing Director and the Treasurer, a figure of 50 per cent of total quotas, 1/ or SDR 30 billion, would not be consistent with a responsible attitude toward the affairs of this institution.

According to the paper on "The Fund's Liquidity Position and Financing Needs" (EBS/81/226, November 20, 1981), Table 1, the cumulative total of expected new commitments under stand-by and extended arrangements for the three years ending April 1984 could be in the range of SDR 24-29 billion; these estimates do not provide for any use by the industrial countries or by the developing countries with relatively large quotas. The commitment of borrowed resources associated with total commitments in that range are given in the same table as SDR 15.3-18.6 billion, the latter figure forming a component of the overall borrowing requirement of SDR 37.7 billion just mentioned. It should also be noted that no increase in the GAB has been

1/ As a ratio indicating an upper limit for Fund borrowing.

assumed, as at present no reason is apparent for anticipating an expansion of those arrangements during the period in question.

The figure of SDR 37.7 billion for potential Fund borrowing can readily be translated into its equivalent in terms of additional Fund quotas with the aid of a few fairly simple propositions and assumptions. First, it may be noted that the constraint which leads to borrowing is the lack of Fund resources, so that the elimination of borrowing would be wholly dependent on those quota increases that will provide usable resources. In spite of the theoretical possibility of a quota increase, to replace borrowing that would be confined entirely to members in a position to pay their quota subscriptions in usable resources, the kind of quota increase dealt with here is one that would be at least roughly equiproportional for all members. The effects of quota increases that would substantially change the distribution of quotas are, however, estimated later in this subsection and discussed more fully in Section IV.

Second, it can be assumed that the usable resources generated by a quota increase and available to the Fund would be equivalent to the quota increase for those members with a balance of payments and gross reserve position that is sufficiently strong for the members to be subject to designation and for their currencies to be included for net sales in operational budgets. Subscription payments by these members would consist of their own currencies and, perhaps, SDRs, all of which would be usable in their entirety. The possibility exists that other members--those not in a sufficiently strong position--might also be called on to make up to 25 per cent of their subscription payments in SDRs, all of which would likewise be usable. SDR subscriptions by these latter members, however, might well induce some of them to make use of Fund resources to finance those subscriptions, thus offsetting at least to some extent the immediate increase in usable resources that they would produce. The effect of paying subscriptions partly in SDRs is explored in Section IV. For the time being, the more conservative assumption is adopted that the only members supplying usable resources on a net basis would be those in a sufficiently strong position.

Third and finally, an estimate is required of the quota share of the members with a balance of payments and gross reserve position that is sufficiently strong for them to be designated. That proportion fluctuates considerably from time to time. One major factor in the variation has been the changing strength of the two largest members, i.e., the United States and the United Kingdom. In the four most recent designation plans, those covering the four quarters ending May 1982, both of those members were included. The quotas of all members that were sufficiently strong to be designated added up to aggregates ranging from 53 to 57 per cent of total Fund quotas. The midpoint of that range, 55 per cent, can perhaps be taken as reasonably representative at the present time of the situation that would be expected to prevail, always provided, of course, that the currencies of the United States and the United Kingdom continue to be included among the usable resources. In settling on a figure as high as 55 per

cent, the possibility of a less favorable case, in which the currencies of either the United States or the United Kingdom, or of both, are not usable, or in which a number of the other larger suppliers of usable resources are simultaneously in difficulty, must be recognized. In those situations, however, borrowing may well be considered the appropriate method of marshalling resources, so that their omission in calculating a quota increase is a reasonable procedure.

With these facts and assumptions, the increase in quotas that would be required to eliminate the need for borrowing can be calculated. The potential addition to quota resources through borrowing has been found to be SDR 37.7 billion as of end-April 1984, and the present quotas of members that are assumed to be in a position to provide these resources are 55 per cent of total quotas of SDR 60.7 billion, or SDR 33.4 billion. Those quotas would thus have to be increased by 113 per cent to provide resources of SDR 37.7 billion. In other words, under present circumstances quotas would have to be somewhat more than doubled in order to provide the amount of usable resources that might otherwise have to be obtained through borrowing.

It may be noted that only a drastic change in the assumptions could result in a different order of magnitude for the figure on the quota increase. For example, just to reduce the calculated increase from 113 per cent to an even 100 per cent, the quota share of countries assumed to be sufficiently strong to be designated would have to rise from 55 to 62 per cent, a proportion that appears quite improbable, especially as an average to be sustained over time. Alternatively, if the estimate for the borrowing requirement were reduced to only SDR 30 billion or 50 per cent of quotas--a proportion that the management considers too rigid as a borrowing ratio--the increase in quotas needed to replace potential borrowing would still come out to 90 per cent. As a further alternative, the assumption could be made solely for illustrative purposes that the quotas of the members supplying usable resources would be increased by, say, as much as 50 per cent more than those of other members. Even with that assumption, the overall increase in quotas needed would be 96 per cent.

A quota increase of 113 per cent converts to a round amount of SDR 130 billion for total Fund quotas. This figure may be conceived as representing an aggregate that would be adequate as of end-April 1984 without any recourse to borrowing, given (a) existing policies on the use of Fund resources, (b) projections of members' financing need and propensity to satisfy that need through recourse to the Fund, and (c) the current pattern of country distribution of quotas applied to the expanded total.

Drawings by non-oil developing countries

A check on the use of Fund resources by the non-oil developing countries with smaller quotas can be made with the help of the estimates and projections of current account imbalances given in the last World Economic

Outlook (WEO) document. 1/ A net current account deficit 2/ in 1981 of about SDR 79 billion (US\$93.5 billion) for the non-oil developing countries excluding the People's Republic of China and India can be derived from the WEO, Table 11. The same table in WEO shows the change in the current account deficit of this group to 1982 and, under three scenarios, to 1985. If the change is taken to be spread fairly evenly over the intervening years between 1982 and 1985, the cumulative deficit for the three years ending April 1984 could be placed in the range of some SDR 240-265 billion, with the figure for Scenario A falling near the middle of that range. 3/

The estimate of SDR 24-29 billion quoted in the previous subsection for new commitments under stand-bys and extended facilities through end-April 1984 is consistent with these WEO projections. Specifically, the relationship between the current account deficits of the non-oil developing countries with smaller quotas in 1981 (SDR 79 billion) and the additional use and commitment of Fund resources in that year (SDR 6.9 billion) is much the same as the corresponding relationship between the possible cumulative deficit estimated for the three years ending April 1984 on the basis of the WEO exercise (SDR 240-265 billion) and the figures for the use of Fund resources by the group during that period (SDR 24-29 billion) which are associated with the total Fund borrowing requirement of SDR 37.7 billion.

A further relevant fact is that all but 28 out of the 106 non-oil developing countries with smaller quotas have actually made one or more drawings on the Fund in the five-year period up to the end of 1981, with one half of those 28 having drawn at some earlier time. An overwhelming majority of the group, therefore, has already demonstrated its interest in obtaining Fund financing, at least under some circumstances.

Propensity to use Fund resources

The projections of the use of the Fund that underlie the foregoing estimate of quota needs as of the end of April 1984 may be put into perspective by examining what they imply about the propensity of various

1/ "World Economic Outlook--General Survey," ID/81/8 and Cor. 1, August 24, 1981. A new WEO is now in preparation, and the figures quoted below from the previous version are being updated and revised. The results of the current exercise were not yet available when this paper was issued.

2/ In principle, the gross deficits of those countries in the group that had deficits would be a better indicator, but recent estimates and medium-term projections for each country individually are not at present available. As a practical matter, the overwhelming majority of the countries in this group usually show deficits on current account. For a brief rationale for the use of the current account as a measure of imbalance, see EB/CQuota/81/3, pp. 20, 22.

3/ The conversions from U.S. dollars, as shown in the WEO, to SDRs have been made at the average U.S. dollar/SDR exchange rate for 1981.

groups of members to use the Fund's resources. One possible way of quantifying this propensity is to relate gross drawings during a certain period by a country or group of countries to the quota of the same country or group of countries. Such ratios for a recent period are shown in Table 1, where, in order to facilitate comparisons, the individual ratios for each country group have been expressed as a proportion of the average ratio for all members.

The period chosen to exemplify the pattern of gross drawings is the five years 1977-81. Considerations in selecting a period are that it should be long enough to even out random influences, as the chance that the drawings in the course of any given period of, say, six months or a year will be representative is small. Nevertheless, the time span must be a recent one, if it is intended to reflect the influence of Fund policies still in effect and of an economic environment not greatly different from the one currently prevailing. In particular, 1977 would appear to be the earliest year that should be covered, as in the previous year large drawings were still being made under the oil facility; the low conditionality attached to the use of that facility could well have increased countries' propensity to draw.

A good deal of caution is necessary in interpreting the rather striking differences in behavior among various groups of countries indicated in the table. On the technical level, many of the groups contain only a few countries, most or all of which have relatively large quotas. In fact, the experience of the group shown in the memorandum item (industrial countries and non-oil developing countries with quotas in excess of SDR 800 million) that accounts for nearly 72 per cent of aggregate quotas is dominated by the drawings during this period of only two countries, the United States and the United Kingdom. ^{1/} The content of "drawing propensity" measured by the method employed here must also be kept in mind. The concept not only embraces the willingness of countries to use Fund resources, which depends on such factors as the cost, terms, conditions, and other characteristics of those resources compared with other means of financing that may be available, such as the drawing down of reserves or borrowing in the private market; it also comprehends the likelihood that countries will incur deficits, the adequacy of owned reserves to finance them, and the size of Fund quotas relative to the deficits.

Even when account is taken of these qualifications, however, the differences among country groups shown in Table 1 remain interesting. Three main groups of countries can apparently be distinguished on the basis of their drawing propensity. First, oil exporting countries have made no use at all of Fund resources in recent years. Second, industrial countries and

^{1/} If a measure of propensity to use Fund resources were constructed that included, for instance, new commitments as well as drawings, the relative propensity for this group might well be shown to be higher, as the Fund had large unused commitments to both Mexico and India during the period in question.

Table 1. Fund Quotas and Gross Drawings Relative to Quotas,
by Country Groups

Country or Group <u>1/</u>	Number of countries	Per cent of total quota <u>2/</u>	Drawing propensity ratio <u>3/</u>
Industrial countries	20	61.7	0.40
United States	1	20.8	0.55
United Kingdom	1	7.2	1.57
Other	18	33.6	0.06
Oil exporting countries	12	11.0	--
Non-oil developing countries	111	27.4	2.73
Quotas exceeding SDR 800 million <u>4/</u>	5	10.1	0.74
Other non-oil developing countries	106	17.3	3.90
Net oil exporters	11	2.6	1.78
Net oil importers	95	14.7	4.27
Major exporters of manufactures	7	3.7	3.55
Low income countries	38	4.2	4.42
Other	50	6.9	4.56
Total	143	100.0	1.00
Memorandum: Industrial countries and non-oil developing countries with quotas exceeding SDR 800 million	25	71.7	0.45

1/ Country groups are those defined in IMF World Economic Outlook, Occasional Paper 4, Introduction to Appendix B.

2/ As of December 31, 1981. Details may not add to totals because of rounding.

3/ Ratio of gross drawings during 1977-81 to quotas on December 31, 1981, expressed as a proportion of the ratio for all members.

4/ Argentina, Brazil, People's Republic of China, India, Mexico.

non-oil developing countries with large quotas (see memorandum item) have drawn amounts that are small relative to their quotas; in absolute size, those drawings nonetheless amounted to almost one third of all drawings in the 1977-81 period because of the large share of the group in total quotas.

The third broad group comprises all non-oil developing countries with the exception of the five with atypically large quotas. The countries in this group have, on the whole, been by far the most active users of Fund resources during the period examined. Some distinctions within this group can perhaps be noted, with the propensity ratio for the net oil exporters in the group being considerably lower than the average and that for the major exporters of manufactures also being somewhat on the low side. Too much significance should not be attributed to these findings, however, in view of the rather small number of countries covered by each of those groups. Conversely, the similarity between the ratios for the low income countries and the "other" net oil importers is all the more interesting because of the large number of countries in both groups.

The estimates given previously for Fund borrowing requirements up to end-April 1984 indicate that the use of Fund resources by the two main groups of users relative to each other is not expected to change very much from what it was in the period 1977-81. Borrowing of SDR 18.6 billion to meet the requirements of the non-oil developing countries with quotas not exceeding SDR 800 million would amount to 177 per cent of the quotas of those countries, and borrowing of SDR 12 billion for the non-oil countries with large quotas and the industrial countries would come to 27.6 per cent of their quotas. The propensity of the former group to draw is thus nearly 6 1/2 times that of the latter group, provided that borrowed funds are foreseen to comprise the same fraction of the drawings of each group. Based on Table 1, the actual figure during 1977-81 has been higher, at 8 2/3 times (3.90/0.45).

The proportion of 177 per cent referred to above for Fund borrowing needs relative to the quotas of the smaller non-oil developing countries is much below the ceiling of 450 per cent of quota that has been set for drawings over a three-year period. That proportion will, of course, be raised by the use of the Fund's owned resources along with borrowed resources. As stated earlier, the borrowing needs of SDR 18.6 billion are associated with total drawings, including the use of resources already held by the Fund, of perhaps SDR 29 billion, which would be equivalent to some 275 per cent of the quotas of the countries in question. Nevertheless, the projections which have been made clearly do not rest on any assumption that even the segment of the membership most likely to turn to the Fund will make use of its access up to the permissible limit.

Recapitulation

This section has described a method for quantifying the quota increase that would be needed to replace Fund borrowing in the medium term, specifically, for this purpose, through end-April 1984. For that period, the Fund's borrowing needs have already been examined by the Executive Board,

and projections are available of some of the developments in the world economy that can be expected to have a major impact on the use of the Fund's resources. The results produced by that method have also been checked against historical relationships, as well as different projections and assumptions, and have been found to be reasonably consistent with this other material.

The method used for developing an overall estimate simply assumes that resources potentially borrowed by the Fund, as already projected, are to be replaced in full by resources derived from a quota increase. With the given assumptions about the form of the quota increase and the proportion of usable resources it will yield, the needed quota total through end-April 1984 is calculated at SDR 130 billion, an increase of some SDR 70 billion, or 113 per cent, over present quotas. Any change in the assumptions within limits that could be regarded as realistic would still suggest an approximate doubling of quotas as the most appropriate magnitude for the increase.

An examination of the propensity of various groups of Fund members to draw on the Fund, as measured by their gross drawings relative to quotas during the five years 1977-81, also tends to corroborate the appropriateness of a doubling of quotas, given the objective of obviating Fund borrowing in the medium term. No large change in the use of Fund resources by various groups of countries relative to each other is implied by the projections of such use that have been made. In addition, the use of Fund financing that has been imputed to the countries most likely to avail themselves of such financing is well within the limits set by current Fund policy on access to its resources.

III. Environment of the 1980s

Four elements of the prospective economic environment that particularly affect the use of the Fund's resources are (1) the expected incidence and cumulative size of payments imbalances, (2) expected holdings and use of international reserves in relation to these imbalances, (3) the prospective capacity of international capital markets to finance imbalances that are not covered by the use of reserves, and (4) the degree of uncertainty attaching to these expectations. These elements are discussed below.

Expected imbalances

The rising long-term trend in payments imbalances, whether measured by current account or overall deficits and surpluses, has been noted in EB/CQuota/81/3. By and large, payments imbalances have increased in proportion to the value of external trade. Three factors that may affect the evolution of payments imbalances relative to the longer-run trend in the remainder of the decade are reviewed here: changes in certain primary product prices, the rate of technological change, and general performance of economic policy.

Primary product prices may have pronounced effects on payments imbalances because of their potential impact on countries' terms of trade. For

instance, from 1973 to 1974 the sum of deficits and surpluses (without regard to sign) of a sample of 111 countries tripled, and from 1979 to 1980 it rose by 50 per cent, both increases being related chiefly to the substantial increase in the price of oil that occurred at these times. Recent tendencies for oil prices to weaken in world markets are already showing effects on payments imbalances. The aggregate surplus of the oil exporting countries is clearly declining more rapidly than was foreseen in last year's WEO. If world economic growth recovers substantially in the years to come, the present weakness in oil markets and the associated reduction in payments imbalances may prove to be temporary. If, however, economic growth remains depressed, especially in the industrial countries, and oil prices continue to be weak, the current account balance of many industrial countries might improve sharply and that of most oil exporters would worsen. The deficits of non-oil developing countries are likely to remain high in either case.

As to technological developments, the coming decade, and perhaps the rest of the century, may well be a period of relatively rapid change, as the computer revolution has increasingly incisive effects on industrial processes. A high overall rate of technological change is likely to be accompanied by a relatively large dispersion of rates of change in particular industrial branches and thus in the trade performance of individual countries as they adapt gradually to gains or losses in comparative advantage. Although this factor bears mostly on the trade balances of industrial and newly industrializing countries, it is to some extent likely to affect trade flows and raise payments imbalances of all countries.

On the issue of the general economic performance of countries, payments imbalances clearly arise from one, or a combination, of the following: the existence of economic objectives temporarily incompatible with external balance, unexpected external or internal developments, and policy mistakes. While international reserves are held so as to be available for financing temporary balance of payments deficits, they are not usually sufficient to cover large deficits arising from major unforeseen developments or serious policy mistakes. The large shifts in raw material and energy prices discussed earlier could be regarded as major unforeseen developments. There are, however, other such developments whose impact on payments imbalances may be not much less important. Variation in inflation rates and food prices, as well as the spectacular rise in real interest rates, are recent examples. Although the unforeseen events of the 1980s cannot, by definition, be forecast at the beginning of the decade, the strong tendency of the world economy toward structural change in the wake of the momentous changes of the early years of the preceding decade (1971-73) cannot be doubted. In such an environment, major policy errors must also be expected to occur with increased frequency as politicians and economists alike lose direction in the rapidly changing economic landscape. The prospect is, therefore, for large deficits occurring from time to time as a result of both unanticipated structural shifts and an increased susceptibility to policy error.

According to preliminary estimates being prepared in connection with the current WEO exercise, the combined current account deficit of the non-oil developing countries will increase moderately from 1981 to 1986 under the central scenario (A), which postulates that industrial and developing countries will on the whole be reasonably successful in reducing inflation, restoring growth, and promoting balance of payments adjustment. Since the nominal value of world trade is projected to increase substantially from 1981 to 1986, a moderate increase in nominal current account deficits implies considerable progress in balance of payments adjustment. Under the more pessimistic scenario (B), which features slower growth and more inflation, the deficits of non-oil developing countries are likely to rise considerably more and the constraint imposed by the availability of finance (discussed below) would be much more severe.

International reserves

In response to the economic upheavals of the last decade, countries' official holdings of reserve assets increased at a greater pace than in any previous historical period of similar length. From the end of 1971 to the end of 1981, the SDR value of total reserves excluding gold quadrupled and reserves including gold at market prices rose more than fivefold--somewhat faster than world imports. At the same time, countries' reliance on financial resources obtained through borrowing in international capital markets also increased markedly (see below).

While most countries accumulate reserves on a scale sufficient to finance at least some part of potential deficits that must be anticipated in the ordinary course of events, most countries should not be expected to make provision in their reserve holdings for extraordinary, unforeseen circumstances and the possibility of major policy mistakes by trading partners or, for that matter, even severely mistaken policies of their own. International reserves are thus likely to increase during the rest of the decade by no more than is appropriate in the light of expected developments of ordinary reserve needs--given the existence of well-functioning international capital markets and the possibility of access to the Fund's resources. Estimates of future reserve holdings are presented in EB/CQuota/81/3. In the present context, the projected figures are less important than the expectation that, for most countries, these holdings are likely to cover only a part of any deficits that they may anticipate incurring from time to time.

International capital markets

The decade of the 1970s saw considerable change in the size and composition of international capital flows, chiefly in response to the increasing integration of the world's financial markets and the need to finance rapidly growing payments imbalances. During 1973-80, almost one half of net current account deficits and reserve accumulation of the non-oil developing countries were financed by net borrowing from banks and the international bond market, a proportion which rose to nearly two thirds in the last two years of that period.

Owing to the adverse impact of high rates of inflation and greater variability of exchange rates and interest rates on bond markets, most of the financing through private capital markets took the form of bank lending rather than bond issues. While the rapid growth in banks' international lending was initially accompanied by a hardening of lending terms, there was a sharp decline in average interest spreads and an increase in the maturity of loans between 1975 and 1979. By 1980, however, capital-asset ratios, which had typically declined over the 1970s to the point where both banks and their supervisors saw a need for rebuilding, came under further pressure as a result of falling prices of assets carrying fixed interest rates and increasing losses on domestic loans. Continuing strong growth in bank lending, in particular to developing countries, will require a restoration of growth in bank capital.

In evaluating the role of private international financial markets in the 1980s, some assumptions regarding underlying economic trends must be made. These can be derived from conditions described in the scenarios of the WEO exercise. In Scenario C, in which the external imbalances of the non-oil developing countries are substantially reduced, the international capital markets would easily be able to provide the necessary finance. In Scenario A, the implied net flow of market finance should be manageable in the aggregate, although financing problems could well arise for a number of individual countries. In the most pessimistic scenario (B), however, the developing countries could encounter considerable difficulties in obtaining the required market finance.

The assumption of moderate growth rates, gradually declining inflation, and continuing reductions in interest rates in the central scenario (A) would be more conducive both to an enhancement of the perceived creditworthiness of the non-oil developing countries, and to the ability of financial markets to respond to that perception, than the alternative conditions in the more pessimistic scenario (B). The behavior of interest rates is particularly critical in both of these areas. A decline in interest rates would affect creditworthiness by reducing the debt service component of the current account deficits of many of the non-oil developing countries. In the financial markets, a decline in interest rates could be expected to mobilize resources by restoring bond market activity. The restoration might be relatively modest at the outset, but by 1986 the bond markets could again play a large role in international finance. While only the "best names" among the non-oil developing countries would be able to tap the market to any significant extent, the growth of bond market issues, both domestic and international, for borrowers in the industrial countries would in effect release bank lending capacity to meet the needs of the developing countries. Declining interest rates would also enhance the ability of banks to raise new capital. Moreover, improved growth performance in the industrial countries would reduce the drain on bank capital sustained through losses on loans.

In this situation, a widening range of countries could gain access to large-scale capital flows through the financing markets, while those countries that already have such access could be expected to meet their

requirements with little difficulty, provided their economic policies were seen by the markets to be appropriate. Competition among banks, moreover, would result in the terms on such financing being quite favorable to borrowers.

Under the more pessimistic Scenario B, the authorities in the industrial countries prematurely relax their efforts to curb inflation. The result is an increase in inflation rates and, after a short spurt of activity in late 1982 and 1983, a new recession in the mid-1980s. The bond markets would not, therefore, be expected to recover as strongly as under Scenario A, and bank capital positions might remain under pressure. Balance of payments prospects for most developing countries would be less favorable than under Scenario A, and banks might therefore find fewer of them to be creditworthy. With weaker bond markets, moreover, borrowers in industrial countries could be competing more strongly for the available bank finance (although with slower economic growth the total demand for private market finance by such borrowers would not be as large). Under these circumstances, fewer countries might find themselves with adequate access to financial markets, and those that did have access might find the funds available to be more limited than they would like. The terms on which such funds are available would probably also be relatively less favorable.

If the foregoing conditions were to prevail, some of the largest borrowers might find bank capital positions to be an especially severe constraint on the availability of funds. Banks that have lent to such borrowers in the past might find the concentration of their exposure too great to permit them to respond to higher lending spreads by rearranging their portfolios. Other banks, such as those based in the Middle East whose large capital is currently allowing a rapid expansion of assets, would not face such problems of exposure concentration, so that countries would still be able, by seeking out new lenders, to obtain a good part of the resources they require, provided they are creditworthy. The terms on which the funds are available, however, may be particularly unfavorable.

To summarize: under both WEO Scenarios A and B, there will be a relatively large financing requirement associated with the current account deficits of the non-oil developing countries during the 1980s. In the more pessimistic scenario (B), it could become very difficult, in a world of high inflation and interest rates, for these countries to obtain the required amount of market finance. In the central scenario (A), those countries with access to the international capital markets whose policies are perceived to be appropriate should not face great difficulty in obtaining sufficient finance from the markets. A number of other countries, however, particularly those that have high debt ratios, could experience financing problems even if they were pursuing adjustment policies.

Uncertainty of expected developments

The recent change in the direction of movements in oil prices and the impact of this change on some of the projections in the WEO serve as

a reminder of the high degree of uncertainty attaching to economic projections over even a relatively short period of one to two years. Tendencies in the more distant future, say, in the second half of the current decade, can be perceived only in very broad terms--as reflected in the extrapolation of those longer-term trends in which observation of the past has inspired some degree of confidence. Deviations from these trends can ordinarily be predicted only with relatively large margins of error.

In the present context--assessment of the appropriate size of quotas in the second half of the 1980s--it is less important to envisage the environment most likely to be encountered at that time than it is to be cognizant of the worst environment (i.e., the one in which the Fund would be most urgently needed) that could be anticipated under plausible assumptions (see discussion below). The large margin of error to which these projections are subject thus makes it prudent to provide for larger quotas than would be considered necessary if the margins of error were smaller.

Role of the Fund

The role of the General Resources Department of the Fund, as a financial agent, is circumscribed by two quantitative limits: first, the size of quotas and, second, members' access to the resources of the Fund under various facilities, expressed as percentages of quota. Only the first of these limits is directly dealt with in this paper. As was discussed in EB/CQuota/81/3 and will be further elaborated below, the question of access to the Fund in relation to quota nevertheless also bears importantly on any consideration of the size of aggregate quotas.

Borrowing from the Fund is not the primary source of balance of payments financing for the bulk of its members. Drawings from the Fund contributed only 16 per cent of the financing of estimated overall deficits (8 per cent of the estimated sum of current account deficits) of Fund members in the five-year period 1976-80. Most overall deficits are financed chiefly or entirely by borrowing from international capital markets, the use of international reserves, or direct loans from government to government. The first two of these sources have already been discussed. The third--lines of credit extended among governments or central banks--can provide important access to finance for members of such arrangements and may thus reduce to some extent their recourse to the Fund. Some of them, such as certain reciprocal facilities among central banks ("swap arrangements") and the "short-term monetary support" of the European Economic Community (EEC), are useful mainly for short-term financing and must generally be reversed within a period of three to nine months. The most important established facility for intergovernmental credit of a longer duration is the medium-term financial assistance facility of the EEC, which provides conditional balance of payments financing for periods of two to five years with creditor ceilings totaling about ECU 14 billion (SDR 12 billion). This facility provides an EEC member with an alternative to the use of the Fund's resources. Its existence could reduce the amount likely to be needed if a member of the EEC did come to the Fund, but it does not by any means eliminate EEC members as potential users of Fund resources.

Members are likely to use the Fund's resources to any appreciable extent chiefly in the following circumstances: when the authorities wish to preserve other resources or credit facilities, especially when access to the Fund is temporarily possible under some special program (e.g., the compensatory financing facility); when Fund endorsement for the member's policies are sought for the purpose of opening, or preventing the closing of, private sources of finance; when the member's financing requirements are large and it needs all the resources it can get; or when other resources are not, or no longer, available.

In many, although not all, of these circumstances, members using the Fund have substantial adjustment problems. Economic stabilization programs agreed with, and subsequently monitored by, the Fund not only assist the borrowing member in correcting the imbalances in their economies that have given rise to external payments problems but also help to preserve or restore equilibrium in other countries whose balance may have been impaired by the policies, or by the lack of adaptation, of the members being assisted. This process is thus, in principle, one that benefits all members, not merely those in balance of payments difficulties.

Adjustment programs supported through Fund resources are intended to reduce members' balance of payments deficits to sustainable levels. When deficits are large in relation to the size of the economies in question, as they have often tended to be in recent years, it may take some time to bring them down to manageable proportions. A number of cases are on record, for instance, in which the current account deficit amounts to 10 per cent or more of gross domestic product. Adjustment of deficits on that scale to sustainable levels is likely to take longer than in the past. Accordingly, some member countries may have to seek a succession of Fund programs in the coming years. Successive programs are not unprecedented, but they may become more frequent in the remainder of this decade than they were in the past.

As illustrated earlier, the extent to which members may need to rely on the Fund's resources depends largely on world economic conditions, which are difficult to forecast. The ordinary resources of the Fund--i.e., quotas--should therefore be adequate to accommodate the amount of any likely calls on them that, in the Fund's assessment, would be justified in accordance with the Fund's purposes and may be needed to forestall an impairment of the international monetary system. If economic conditions turned out to be unexpectedly favorable, part of the resources made available to the Fund would not have to be used. Such excess capacity would not be harmful, however; indeed, it is the outcome to be aimed at. If conditions were instead unfavorable, but not of unexpected severity, the available resources would have to be used rather fully, to the advantage of both those receiving assistance and those providing it. If conditions turned out to be unexpectedly adverse, and if it were judged that Fund assistance should be increased beyond the use of quota resources to avert dangerous tendencies in the world economy, the Fund would have to resort to other means of obtaining resources, for instance, borrowing.

Some guidance should, of course, be given to members, as well as to the staff, with respect to the extent to which recourse to the Fund's resources is appropriate under the circumstances prevailing from time to time. Such guidance can be provided more easily by adjusting the proportional quota limits set for various Fund facilities, which can be done by decisions of the Executive Board, than by general quota reviews, which require ratification by members in addition to a decision by the Board of Governors. Moreover, guidance through adjustment of quota limits is more flexible since these limits can be reduced as well as increased, whereas quotas can, in practice, probably only be raised but not lowered. For instance, a reduction in the principal quota limit--the one applying to drawings from the Fund under stand-by and extended programs by members making strong balance of payments adjustment efforts--was decided to accompany the entry into force in 1980 of the quotas agreed under the Seventh General Review. This and similar limits could be altered in response to changing economic conditions and to the trend increase in members' need to use Fund resources relative to quota in the course of the (typically quinquennial) period between quota reviews.

If the actual use of Fund resources were in part regulated through the periodic adjustment of quota limits, it would be appropriate for quotas themselves to be set at a level that prospectively covers foreseeable maximum needs to the end of the quota review period in question. This theme will be further elaborated in the following sections.

IV. Additional Influences on Quota Size

The estimates of the required size of Fund quotas discussed in Section II explicitly refer to the Fund's shorter-term need for resources--extending through the coming two financial years, the second of which ends April 1984. Salient features of the economic environment at the beginning of the second half of the present decade were sketched in Section III. In the present section, several other considerations relevant to the decision on the size of quotas in the period beyond end-April 1984 will be discussed.

Timing

Without giving detailed consideration to the precise period during which the quotas decided in the Eighth General Review would be in effect, it will be assumed that this period will extend for approximately five years commencing some time in 1984 or 1985. It will therefore cover approximately the second half of the decade of the 1980s.

Borrowing by the Fund

The next matter to deserve attention is the anticipated role of borrowing. Wide agreement now exists that main reliance should be placed at this time on quotas rather than borrowing as the source of the Fund's resources. This could be taken to mean that quotas should be large enough

to cover anticipated requirements at the end of the quota period in question, say, in 1989 or 1990. This assumption would be consistent with the possibility of some borrowing in the course of the quota period to obtain additional resources, if needed, beyond requirements anticipated at the time of the decision on the quota increase under the Eighth Review.

Alternatively, it could be decided to raise quotas to a level covering resource requirements only at the beginning of the new quota period, say, during the first two years, and to rely on borrowing for any increase in resource needs thereafter. Under this approach, the size of quotas would be adjusted to estimated requirements for, say, 1986.

A practical combination of these two approaches would look toward quota resources to cover, with a suitable safety margin, the Fund's lending up to 1989/90 that could be anticipated in the "normal course of events," say, under the assumptions of the most plausible WEO scenarios and of smooth functioning of the international capital markets in providing the necessary recycling. Additional lending by the Fund in response to unexpectedly adverse developments in the world economy or in financial markets, or both, could be supported by resources obtained through borrowing.

As discussed in EB/CQuota/81/3, one possible purpose of borrowing by the Fund would be to supplement the contribution to resources made by members that have substantial structural surpluses in their balance of payments and whose quotas are relatively small. Such borrowing would not necessarily serve the purpose of bridging a temporal gap in resource availability. If substantial borrowing of this type were contemplated, the need for resources raised through quota subscriptions would be smaller than would otherwise be the case. No allowance has, however, been made for this possibility in the estimates provided in this paper.

Distribution of quotas

Earlier in this paper, the size of quotas required to achieve certain objectives was estimated under the simplifying assumption that quotas would be increased equiproportionally for all members. In relaxing this constraint, some elaboration of the relationship between the size of quotas and their distribution is provided below.

In gauging the size of Fund quotas, the focus of the discussion has been--explicitly or implicitly--on the amount of owned resources necessary to carry out the Fund's activities on a desired scale. As mentioned earlier, the size of quotas governs the amount of resources members make available to the Fund (other than by lending), but the use of those resources is also limited by their availability, i.e., by the strength of members' external positions. The extent of use of these resources may be fixed by Fund policy at any proportion of quota on the basis of need or other considerations, provided that the resources to support that amount of use are available. From this viewpoint, the aggregate size of quotas and its distribution among members are relevant chiefly as determining the amount of usable resources available to the Fund. The larger is the

share in any quota increase of members with strong external positions, the smaller is the quota increase required to provide a given amount of resources.

The practical application of this principle is limited in two ways. The first limitation is imposed by the volatility of balance of payments positions over a time span of half a decade or more. The effects of a change in quota shares on the structure of quotas tends to linger on for a number of general quota reviews. Any classification of members into groups of surplus countries and deficit countries cannot be expected to remain valid for the duration of a quota structure based on such a classification. Second, quota shares serve other purposes than the determination of resource contributions to the Fund; in particular, they are the basis for members' voting power and their shares in the allocations of SDRs.

Quota subscription payments in SDRs

The medium in which subscription payments for quota increases would be made ^{1/} is another factor that could have an influence on their absolute size. Quota payments in SDRs add to the Fund's resources in the first instance, regardless of the balance of payments and gross reserve strength of the member making the payment. If the same payments were made instead in the members' own currencies, a portion of the payments would not add to the Fund's usable resources.

Two factors determine the net addition to usable resources that results from a subscription payment in SDRs compared with one in members' own currencies. First, an addition occurs only when SDRs replace a member's own currency that is not usable because of insufficient strength of the member's balance of payments and gross reserve position. Second, experience has shown that some members need to use the Fund's resources to finance any portion of their subscription payments that is to be made in reserve assets; in such cases, SDR payments do not make any net addition to the Fund's holdings of usable resources.

The effects of these factors can be put into perspective by constructing an example. To maximize the potential effects, it may be assumed that the full 25 per cent of the increase that is permitted by the Articles is to be paid in SDRs. Further, an assumption made earlier will be maintained,

^{1/} The relevant provision is Article III, Section 3, Payments when quotas are changed, which reads in part:

"(a) Each member which consents to an increase in its quota under Section 2(a) of this Article shall, within a period determined by the Fund, pay to the Fund twenty-five percent of the increase in special drawing rights, but the Board of Governors may prescribe that this payment may be made, on the same basis for all members, in whole or in part in the currencies of other members specified, with their concurrence, by the Fund, or in the member's own currency."

namely, that no more than 45 per cent of currency subscriptions will prove to be unusable. Under these conditions, about two thirds of total subscription payments would be usable. ^{1/} In contrast, if payments were entirely in the members' own currencies, the usable portion would go down to 55 per cent, a gross reduction by 17 per cent. The net reduction, however, would probably be smaller, depending on the extent to which members drew on the Fund in connection with their SDR subscriptions.

The foregoing discussion of the impact of quota payments in SDRs on the Fund's usable resources is not meant to imply that the decision about such payments could depend mainly on this factor. Of more concern is the small supply of SDRs that is available for that purpose. On December 31, 1981, the stock of SDRs in the hands of members amounted to SDR 16.4 billion. Moreover, the distribution was very uneven, with holdings by the industrial countries equaling 32 per cent of their quotas, those of the oil exporting countries 26 per cent, and those of the non-oil developing countries 16 per cent. Even if much of the available supply were to be transferred to the Fund--a development that could hardly be seen as consistent with promoting the SDR as the principal reserve asset--the net contribution would be rather small compared with the Fund's total requirement for usable resources.

V. Summary and Evaluation

The approach to an assessment of the appropriate size of quotas taken in this paper contains the following principal elements: it relies as much as possible on available information about the prospective commitment of Fund resources; it uses preliminary projections made in the WEO exercise of March 1982 whenever possible to carry the analysis beyond the commitment horizon; and it is based on the idea that quota subscriptions rather than borrowing should be the normal source of the Fund's resources.

A quota total of SDR 130 billion--somewhat more than double the present quotas of SDR 61 billion--would be sufficient to accommodate prospective commitments to the end of April 1984 without resort to Fund borrowing. These commitments are based on a country-by-country analysis of non-oil developing member countries with quotas below SDR 800 million and contain a modest contingency allowance for industrial countries and five non-oil developing countries with larger quotas.

The period of four or five years ending in April 1984 will no doubt be seen, in retrospect, as one of considerable strain in the international monetary system, characterized by substantially larger payments imbalances and adjustment difficulties than had been experienced earlier, even in the rather turbulent 1970s. Analysis of the medium-term scenarios of the WEO

^{1/} That is, 25 per cent of the payments by 45 per cent of the membership plus 100 per cent of the payments by the remaining 55 per cent, for a total of 66.25 per cent.

does not, however, invite complacency about developments during the additional years (1984-86) within the present WEO horizon, or indeed the years beyond 1986, as far as they can be foreseen. Consolidation of the adjustment policies undertaken in the first part of the decade will require an enormous effort, which deserves the full support of the Fund through its programs and resources.

Considerable success of adjustment policies in the period up to 1986 is implied in the "central" scenario by the rather modest rise in nominal terms of current account deficits of non-oil developing countries in the face of rising values of world trade and payments. In contrast, the more pessimistic scenario, which is by no means totally improbable, implies a more substantial continued rise in nominal deficits and a worsening, rather than an abatement, of adjustment problems. The WEO also contains a more optimistic scenario indicating more rapid growth, lower inflation, and an improvement in world economic equilibrium. Less weight should be given to this scenario in the present context, since it is unfortunately not very probable and, in any case, the Fund has to be prepared for the unfavorable outcomes, when it would be most urgently needed.

The central scenario envisages that industrial countries are able to return to moderate economic growth with diminishing inflation rates, and that all countries can be relied upon to make strong efforts at balance of payments adjustment, although often under adverse circumstances. In this setting, quotas ought certainly to be fully adequate to support members' adjustment programs without recourse to Fund borrowing for as long as these, or more favorable, world economic conditions prevail. The quotas decided in the Eighth General Review should thus be at least sufficient to accommodate Fund programs appropriate in the circumstances of the central scenario until 1989/90. In this scenario, the aggregate of nominal current account deficits of non-oil developing countries with quotas of less than SDR 800 million may be projected to rise modestly from 1984 to 1986, perhaps by some 10-20 per cent. These deficits can be projected to 1989/90 by assuming (a) continuation beyond 1986 of the conditions envisaged in Scenario A and (b) further progress in balance of payments adjustment, reflected in a reduction from 1986 to 1989/90 in the ratio of these deficits to world trade (represented by imports) at the proportionate annual rate of decline calculated for the period 1981-86. Under these assumptions, aggregate current account deficits of non-oil developing countries would rise by approximately one fourth from 1984 to 1989/90. If the need for Fund support for these and other members were assumed to rise roughly in proportion to this scale factor, quotas sufficient to make Fund borrowing unnecessary until 1989/90 could be larger than SDR 130 billion, perhaps of the order of SDR 160 billion. The assumption made under (b) above--namely, that balance of payments adjustment will continue to reduce current account imbalances in the later years of the decade at the same rate that is envisaged for the years lying within the present WEO horizon--is clearly an optimistic one, even within the overall framework of Scenario A. If adjustment policies were to meet with less

success, and therefore required stronger Fund support, the quotas needed toward the end of the 1980s could be larger. 1/

Quotas of that general magnitude--SDR 160 billion--would be likely to provide sufficient resources up to 1986 even under the more pessimistic assumptions of Scenario B, in which the nominal value of current account deficits (mostly of non-oil developing and smaller industrial countries) is expected to rise more than in Scenario A. Toward the end of the quota period, however, the resource requirements implied in Scenario B may rise fairly rapidly beyond the amount provided by quotas assumed to be adequate for the conditions envisaged in Scenario A, not least because of the rise in the nominal value of world trade--and of deficits--implied by the higher price inflation foreseen in the more pessimistic scenario. In this situation, the assumption might plausibly be made that, in the much more strained world economic and financial conditions envisaged in Scenario B, some recourse to Fund borrowing could be considered appropriate for the remainder of the period served by the quotas agreed in the Eighth Review.

Two circumstances discussed in this paper could somewhat reduce the required amount of quotas. First, if a portion of the quota subscriptions were to be paid in SDRs rather than in members' own currencies, the quota increase required to provide a given amount of usable resources would be somewhat smaller. This factor could reduce the required increase by 10-15 per cent. It would, of course, be predicated upon there being a sufficient volume of SDR holdings. Second, if some Fund borrowing were maintained for structural reasons--to bridge a gap between quota shares and shares in payments surpluses rather than a temporal gap between consecutive quota reviews--the required quota total would be reduced accordingly.

If quotas were raised by a substantial amount as a result of the Eighth Review, it would be logical to reduce the quota limits on a member's access to Fund resources. This question falls, however, outside the scope of the present paper.

1/ For example, if the ratio of deficits to imports were to decline from 1986 to 1989/90 at one half the rate of decline calculated for the period from 1981 to 1986, deficits would increase by some 40-45 per cent from 1984 to 1989/90, and, under the assumptions stated in the text, required quotas could be as large as SDR 180-190 billion.