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EBS/91/218

CONFIDENTIAL

December 23, 1991

To: Members of the Executive Board

From: The Secretary

Subject: Review of Guidelines for the Allocation of Currencies Under the Operational Budget

Attached for consideration by Executive Directors is a staff paper prepared in connection with the Fund's review of the "Guidelines for the Allocation of Currencies Under the Operational Budget." The summary and concluding observations are presented in Section IV, pages 22-26.

In June 1990, the Executive Board approved a new set of guidelines regarding the use of currencies in the operational budget (Decision No. 9480-(90/103), adopted June 27, 1990). Paragraph 6 of the guidelines provides that the Fund will review the guidelines before the end of 1991 or before the increase in quotas under the Ninth General Review comes into effect, whichever comes earlier. The staff has prepared the attached paper for this review.

However, to give Executive Directors adequate time to consider the paper, it is proposed to postpone the review of the guidelines to Wednesday, January 15, 1992. In the absence of a request for a discussion of the time of the review by noon on Friday, December 27, 1991, the proposal to postpone the review to January 15, 1992, will be deemed approved by the Executive Board, and it will be so recorded in the minutes of the next meeting thereafter.

Mr. Dhruba Gupta (ext. 8321), Mr. Blalock (ext. 8341), or Mr. Moustapha (ext. 7637) is available to answer technical and factual questions relating to this paper prior to the Board discussion.

Att: (1)

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INTERNATIONAL MONETARY FUND

Review of the Guidelines for the Selection of Currencies for Use in the Fund's Operational Budget

Prepared by the Treasurer's Department

(In consultation with the Legal and Research Departments)

Approved by David Williams

December 23, 1991

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I. Introduction

In June 1990, the Executive Board approved a new set of guidelines regarding the use of currencies in the operational budget (Decision No. 9480-(90/103), 6/27/90). In that connection, it was agreed that the Fund would review the guidelines before the end of 1991, or before the increase in quotas under the Ninth General Review came into effect, whichever came earlier. This paper has been prepared as a basis for the review of the guidelines agreed in 1990.

In the discussions leading up to the adoption of the guidelines, Directors considered the relative merits of a system of allocating amounts of currencies under the operational budget based principally on members' official holdings of gold and foreign exchange, as had been traditionally used by the Fund since the early 1960s, or of basing the allocation of currencies on members' quotas, which are a measure of members' rights and obligations in the Fund and broadly reflect members' relative economic size. The traditional method of allocating currencies under the operational budget is based on the view that the acquisition of a Fund position represents an exchange of assets, which changes the composition of a member's reserves but not the level of its reserves. The Directors in favor of using quotas as the basis for allocation were of the view that official holdings of gold and foreign exchange are no longer a reliable indicator of a member's external financial position, especially taking into account members' access to private financial markets and freely floating exchange regimes, which have affected the need for reserves. Furthermore, they expressed the view that the burden sharing arrangements, under which debtors and creditors meet part of the costs of overdue obligations to the Fund through a temporary increase in the rate of charge and a temporary reduction in the rate of remuneration, have increased the cost of holding a Fund position, and these costs should be taken into account in the allocation of currencies. In their view, these costs would best be taken into account if the allocation of currencies were based on quotas.

The Chairman indicated in his summing up of the meeting of the Executive Board on June 1, 1990 that in its review of the guidelines, the staff would consider the concept and measurement of reserves for purposes of allocating currencies under the operational budget, taking into account issues relating to international liquidity, and that the staff would also discuss the burden sharing arrangements in this context. It is also to be noted that some Executive Directors requested that in the discussion of the burden sharing arrangements, consideration should also be given to the issue of the unremunerated reserve tranche in determining members' contributions to the financing of the Fund.

This paper considers these issues and is organized as follows: Section II examines the criteria used in the allocation of currencies under the operational budget, and includes a discussion of the role of reserves in this process and an examination of the extent to which the broader concept of liquidity has affected the role and function of reserves as a basis for allocating currencies, as well as a discussion of the use of quotas as a basis for the allocation of currencies under the operational budget. It then deals with issues relating to the cost of financing the Fund's operations--the role of the unremunerated reserve tranche position and the cost to the member arising from the temporary reduction in the rate of remuneration as a result of the burden sharing arrangements. Section III discusses the issues that arise if the cost of financing the Fund were to be taken into account in determining the allocation of currencies under the operational budget. Some illustrative methods of allocating currencies to take into account considerations of the cost of financing the Fund are presented, with alternative approaches based on reserves and quotas and including the method of allocation incorporated in the present guidelines. Section IV provides some concluding observations.

II. Criteria for the Allocation of Currencies Under the Operational Budget

1. Reserves

The Fund has traditionally allocated to members considered sufficiently strong for inclusion in the operational budget amounts of their currencies for transfer determined in proportion to these members' official holdings of gold and foreign exchange, subject to certain constraints. The definition of reserves used to assess members' relative external financial strength and to allocate amounts of currencies to them has been that used in *International Financial Statistics (IFS)*, which has been taken to be authoritative in this field, regardless of national practice. 1/ International reserves used in connection with currency allocations for the operational budget are defined to include gold and foreign exchange held by the monetary authorities. 2/

1/ It is, of course, possible that statistical problems affecting the data presented in *IFS* can arise from time to time: the definitional issues have, however, been assumed to have been settled.

2/ Under present *IFS* reporting standards, certain official holdings of foreign exchange that are not considered to be freely usable in the event of balance of payments need are excluded from international reserves. For example, holdings of inconvertible currencies and net claims under bilateral payments agreements are not generally regarded as part of international reserves.

In the assessment of members' relative external strength, the Fund takes into account the level of and recent changes in members' primary reserves as defined in *IFS*, viz., gold, foreign exchange, reserve position in the Fund, and holdings of SDRs. However, SDRs have not been included in the total of reserves used as the basis for allocating currencies under the operational budget. As indicated during the previous discussion of the guidelines for the operational budget (EBM/90/85, 6/1/90), consideration has been given by the staff in the past as to whether members' holdings of SDRs should be so included. It was considered on balance that their inclusion may not be appropriate because SDRs would not normally be used to finance an increase in a member's reserve tranche position in the Fund, and if SDRs were so used it would in principle affect the harmonization of SDR positions under the designation plan.

In this connection, it is to be noted that gold is valued at its historic official price of SDR 35 per fine ounce. 1/

As noted in earlier discussions of this matter, the use of official holdings of gold and foreign exchange to allocate amounts of currency to be transferred by the Fund has three major advantages: (i) it facilitates the provision of financing to the Fund and thereby helps maximize the Fund's liquidity; (ii) official holdings of reserves are a good, and readily available, indicator of a member's ability to finance the Fund because the level of, and change in, a member's reserve position reflect short-term strength in its external position, and directly relate the amount of financing to be provided to the Fund to the resources members have available; and (iii) it does not risk making the member illiquid, because the acquisition of a reserve tranche position in the Fund represents an exchange of assets, i.e., there is a change in the composition but not in the level of members' reserves. It might also be noted that insofar as a competitive rate of return is paid on reserve positions in the Fund, there is no real resource cost of holding such a position.

The use of members' official holdings of gold and foreign exchange as an important indicator of a member's ability to make resources available for the Fund's operations has proved in the past to be practical and generally equitable. However, a number of drawbacks to the system have been pointed out recently with increasing frequency in the Executive Board: first, members may not be indifferent to a shift in the proportions of their reserves held in foreign exchange and in Fund positions and SDRs, because they may not perceive foreign exchange and Fund-related assets as perfect substitutes, nor as equally usable at a given point in time. In addition, the SDR denomination of Fund-related assets may not coincide with the authorities' preferences as regards the denomination of their reserves, including the need for assets that can be used directly for intervention in the exchange markets.

Secondly, to a considerable extent, members choose to hold different levels of reserves. 2/ For a member which chooses to hold relatively high reserves, the traditional form of allocating currencies can result in the member acquiring a relatively large Fund position, and a member with relatively large reserves in terms of Fund quota (though the quota may be relatively low) may find that both its absolute share in Fund financing and its relative share compared with its quota are large. 3/ While the techni-

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1/ The Fund agreed on this form of valuation of gold in 1979; see "Treatment and Valuation of Gold for Fund Purposes," SM/79/40 (2/7/79).

2/ See M. June Flanders, "The Demand for International Reserves," *Princeton Studies in International Finance*, No. 27, 1971.

3/ Also, when a member is added to the list of sufficiently strong members (after some period of being off the list) or when a member's reserves are rising rapidly, its currency will be used heavily relative to the long-term "steady state" rate of use, until the member's reserve position in the Fund relative to its gross international reserve holdings is harmonized with the ratios of the other members on the list. This problem is, however, essentially transitional in nature and can be mitigated by adjusting the pace of harmonization of positions.

que of harmonizing Fund positions to members' reserves tends to minimize the impact of Fund use of currencies on members' reserve asset management, the situation of members with relatively high reserves in terms of quota has given rise to the view that some limitation should be placed on the use of a member's currency in relation to its quota.

Thirdly, members' preferences between holding a Fund position and foreign exchange are increasingly affected by considerations of relative yield. It may be recalled that until the First Amendment of the Articles of Agreement came into effect in 1969, the Fund did not pay remuneration on the use of its currency holdings (and the rate of charge was not linked to market rates of interest). After the First Amendment, the Fund paid only a low rate of remuneration on the use of a member's currency when holdings fell below 75 percent of quota. However, members have come to attach increasing importance to the rate of return on Fund-related assets, and the rate of interest paid on the remunerated portion of members' reserve tranche positions in the Fund, which has been gradually increased since the Second Amendment in 1978, is now fixed at 100 percent of the SDR interest rate. 1/ However, the actual rate of remuneration has effectively been reduced as a result of the agreement made in 1986 whereby the cost of overdue obligations to the Fund is borne jointly and symmetrically by debtor and creditor member countries under the burden sharing arrangements. 2/ As a consequence, for the creditor country the cost of acquiring a Fund position has risen sharply in relation to the return it could expect to earn from the holding of foreign exchange assets and SDRs.

It should, however, be noted that while the relative yield of holding a Fund reserve position has temporarily fallen, resulting in considerable forgone income, members continue to provide resources to the Fund in accordance with the Fund's policies as determined by the Executive Board and with members' obligations under the Articles. Nevertheless, the fall in the relative rate of return on Fund assets, as a consequence of the burden sharing arrangements, has led Directors to raise important issues regarding the method of allocating currencies under the operational budget. Some Directors have questioned whether official holdings of gold and foreign exchange should continue to be used as a distributive key for allocating currencies under the operational budget; whether greater emphasis should not be placed on the relationship between the amount of financing made available to the Fund by a member and its size of quota; and also whether the cost of financing the Fund should be taken into account in allocating currencies to be used by the Fund under the operational budget. These issues are taken up in the following sections.

1/ See "The Rate of Remuneration and the Fund's Income Position," EBS/83/237 (11/2/83), and "Factors Relating to Burden Sharing in the Fund," EBS/85/126 (5/14/85).
2/ Executive Board Decision No. 8348 (86/122), July 25, 1986, as amended.

2. Reserves and liquidity

An Executive Director has expressed the view that taking into account the changes that have taken place in the international financial markets in recent years--in particular the scale of capital movements and the integration of capital markets, as well as the burden sharing arrangements--it is questionable whether the Fund's definition of international reserves remains the best or even an appropriate indicator of a member's ability to contribute to Fund financing. 1/

The issue of the relationship between reserves and international liquidity has been long debated. In the period up to the late 1950s and early 1960s, it was common to refer to international reserves and international liquidity synonymously--reserves and liquidity were measured as gross, owned official holdings of gold and foreign exchange (plus reserve positions in the Fund) as reported by monetary authorities to the Fund and published in *IFS*. It was generally agreed that international reserves were for use in the settlement of net imbalances in a country's overall international payments either directly or by intervention in the foreign exchange market to support the exchange rate. In practice, of course, foreign assets were also held outside the official sector and were used in international payments, but these assets were neither necessarily nor readily available for the purposes of the monetary authorities. However, from the early 1960s, the composition and nature of official international reserves began to change and to comprise a widening range of assets which increasingly began to be referred to as international liquidity. 2/ Official reserves were increasingly supplemented by a broad range of official credit facilities (some available on a conditional basis) in the 1960s, and the counterparts of official swaps began to be added to official reserves. In short, while most official monetary actions in the exchange markets tended to be reasonably well reflected in reserve levels, the changes in those levels also reflected a variety of ways in which the monetary authorities replenished their

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1/ "In the past, ... we could judge the strength of a country's balance of payments following the movements of the foreign assets held by central banks.... We could say that a country had more liquidity when it had more reserves, and a country had less liquidity when it had less reserves.... This is no longer the case for the richest countries in the world.... With the explosion of capital movements and the integration of capital markets the role of reserves in the current system is fundamentally different from what it was in the past." Statement by Mr. Fernández-Ordóñez on the Operational Budget, EBM/89/162, 12/13/89 (Buff 89/228, 12/14/89, pp 4-5).

2/ The Group of 32 Economists in its report on "International Monetary Arrangements: The Problem of Choice" noted "the international liquidity of a country comprises a spectrum of assets and borrowing powers at the disposal of its monetary authorities, which for purposes of analysis can be classified in a variety of ways." The report then proceeded to analyze a wide range of assets before concluding that for the group's purposes the international liquidity of a country is "the sum of owned reserves and unconditional drawing rights." Report, 1964, pp. 30-31.

balances of the currencies used for operations in the exchange markets. Official holdings of gold, reserve currency balances, positions in the Fund, and, later, SDRs (primary reserves) were increasingly supplemented by a broad spectrum of other official resources and facilities, which were conceptually imprecise and difficult to measure as regards their availability for the purposes of the settlement of payments imbalances and market intervention.

Similarly, major changes occurred in the private international money and capital markets following the acceptance of convertibility by the major European countries, the steady relaxation of exchange controls, the emergence and rapid development of the eurocurrency markets, and the widespread liberalization of capital movements. As a result, governments with access to private international credit markets became generally able to increase their stocks of foreign exchange reserves by issuing liabilities denominated in reserve currencies and acquiring liquid reserve assets in the form of deposits or securities. This access to the private credit markets further added to a country's spectrum of actual or potential assets and, therefore, increased the effective volume of international liquidity at its disposal. In practice, however, countries continued to find it necessary to hold primary reserves in the traditional forms of owned and highly liquid unconditional assets, not only for working balances but also because access to financial markets and the cost of borrowing are determined by their credit standing, which is likely to deteriorate at the very time countries find it necessary to borrow, thus raising the cost of borrowing or causing access to be denied. Countries have, therefore, felt the need to continue to expand their holdings of primary reserves. 1/

The relationship between a member's holdings of primary reserves and its liquidity position has become very complex given institutional arrangements in the present structure of the international monetary system. First, while the concept of liquidity has continued to expand and the spectrum of assets continues to increase, in practice countries continue to need primary reserves--i.e., assets that can be quickly and unconditionally converted into foreign exchange--to settle payments imbalances and to support the exchange rate. Other international assets do not serve the same purpose. A country's need for primary reserves continues to be closely related--though not in any strictly proportional sense--to increases in the volume of its foreign exchange transactions, taking into account its exchange rate and exchange market arrangements. The role of and need for primary reserves has fallen *relatively*, given the large expansion of official and private sources of international liquidity, especially for the industrial countries. However, there is little evidence that the significance of members' primary reserves has declined to an extent that would suggest they are either unrepresentative of a member's relative financial position or any less indicative of a member's ability to acquire a reserve position in the Fund than hitherto. Indeed, it is the creditor countries in general that have seen the greatest change in the relative importance of primary reserves in relation to their

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1/ See "Considerations Pertaining to a Resumption of SDR Allocations in the Fifth Basic Period," SM/87/63 (3/4/87), p. 5.

overall international liquidity position, so that the acquisition of a reserve tranche position has tended to become relatively easier rather than more difficult over time for such countries.

Secondly, the industrial countries are the predominant holders of gold. The Fund continues to include gold in the total of members' primary reserves at its former official price of SDR 35 per fine ounce for operational purposes. 1/ It is difficult to assess the role of the gold component of primary reserves. On the one hand, the monetary price of gold has been abolished and the market price of gold is highly volatile, which would call for a highly conservative valuation of gold holdings. On the other hand, members are free to deal in the private gold markets, which provide an important element of liquidity for members' gold reserves. However, the absorptive capacity of the gold markets is relatively limited within a wide price range. The liquidity of gold as a monetary asset is, in terms of spot sales for relatively large amounts, limited. Nevertheless, gold has become a highly usable asset in terms of forward operations, swaps, and as collateral. While it seems reasonable for the Fund to continue to include gold as a component of a member's primary reserves for operational purposes, in view of its relative importance in members' monetary reserves, the issue of its appropriate valuation for the Fund's operational purposes may usefully be reconsidered in due course.

Thirdly, while the need for primary reserves in general may well have fallen, as suggested above, individual members continue to hold quite different levels of international reserves in relation to their size--as measured in terms of imports, quotas, etc.--which may reflect an element of choice or other institutional constraints. The decline in the demand for primary reserves has not been uniform and countries continue to show a wide range of reserve preferences (as reflected in the ratios of reserves to imports). 2/ Table 1 presents average ratios of reserves to quotas and to imports for three relatively homogeneous periods for all members that have been included in the operational budget since 1970. The data show a rhythmic pattern, with a much higher ratio of reserves to imports for the developing countries in the period 1974-80, when access to private financial markets was greatest, than in the period 1965-71, when access to official liquidity was greatest, and the later 1983-90 period, when private markets have been less accessible to many countries, especially the developing countries.

1/ See "Treatment and Valuation of Gold for Fund Purposes," SM/79/40 (2/7/79).

2/ See "The SDR and the International Monetary System ,"SM/89/32 (2/18/89), p. 27; Jose Saul Lizondo and Donald J. Mathieson, "The Stability of the Demand for International Reserves," *Journal of International Money and Finance*, Vol. 6, No. 3 (September 1987), pp. 251-82; and Flanders, *op.cit*, pp. 43-44.

Table 1. Selected Reserves Ratios for Members Included in the Operational Budget 1/

	1965-71	1974-80	1983-90
Developed countries			
Reserves to quota	533.6	748.1	716.7
	(0.66)	(0.58)	(0.52)
Reserves to imports	35.9	21.8	26.2
	(0.60)	(0.45)	(0.48)
Developing countries			
Reserves to quota	530.9	1,639.5	843.0
	(1.46)	(1.30)	(2.38)
Reserves to imports	46.8	56.6	41.1
	(0.72)	(0.77)	(0.60)
Non-oil developing countries			
Reserves to quota	450.3	1,124.8	895.0
	(1.18)	(1.40)	(2.54)
Reserves to imports	41.5	47.5	36.9
	(0.67)	(0.57)	(0.62)

Source: *IFS*.

1/ Figures in parentheses are coefficients of variation. Data on the stock of total reserves (with gold valued at SDR 35 per ounce) are as of the end of the year. To broaden the country coverage, data on imports include only merchandise imports. In the case of some developing countries, reserve and import data for 1990 were not available.

From these data, it seems reasonable to conclude that primary reserves continue to play a major role in the spectrum of members' liquidity positions. Clearly, primary reserves play a relatively more important role for developing than developed countries in terms of their international financial transactions, but there do not appear to have been major changes in the distribution or relative importance of primary reserves since the early 1960s. Furthermore, the dispersion of ratios across members within each group (as measured by the coefficient of variation for the individual averages in each period) has remained pronounced in the most recent period for both major groups of members. While it is not currently possible to measure international liquidity in a meaningful way, the available evidence would not suggest that the significance of primary reserves has fundamentally declined in relation to international payments since the early 1960s. This would suggest that primary reserves continue to be a relevant indicator on which to base the distribution of resources provided to the Fund.

In the light of the above, the case for the use of a member's primary reserves as an indicator of its relative ability to contribute to the provision of resources to the Fund remains strong. This is because (i) primary reserves and changes in primary reserves continue to reflect short-term strength or weakness in a member's external position; 1/ (ii) the acquisition of a reserve position in the Fund is a substitution of assets within the widely accepted (*IFS*) definition of primary reserves and does not risk making the member illiquid; and (iii) it helps to ensure that members' contributions to the Fund's operations have a direct relationship to the resources that they can make available for this purpose. 2/

3. Quotas

For reasons partly associated with structural changes in the international monetary system over the last thirty years, including the differentiated role of primary reserves in the broader concept of international liquidity, but mainly because of the recent changes that have led to an increase in the cost of acquiring a reserve position in the Fund, some Executive Directors have requested that the allocation of currencies under the Fund's operational budget should be based largely on quotas, rather than official reserves of gold and foreign exchange. When the issue of the method of allocating currencies under the Fund's operational budget was discussed in June 1990, it was broadly agreed that the allocation of currencies would continue to take reserves into account, but would also bring into somewhat greater prominence the role of quotas. The staff proposed a system of allocating currencies that was based, with some modifications, on the guidelines for allocating currencies that had been adopted by the Executive Board in September 1979. That system included a floor to the level of the Fund's holdings of currencies, expressed in terms of quota, that was directly related to the level of average holdings, while continuing to allocate repurchases in proportion to reserve tranche positions, up to the remuneration norm. This approach was preferred to an alternative method of placing a cap on the ratio of members' reserve tranche positions in relation to their quotas.

The present system of currency allocation adopted in June 1990 is essentially a mixed system. It takes into account members' primary reserves in that the total amount of transfers of currencies under the operational budget is allocated in proportion to members' gold and foreign exchange reserves, provided that the Fund's holdings of a member's currency in terms of quota shall not be reduced as a result of transfer allocations below a floor of two thirds (formerly one half) of the average level. Receipts are allocated in proportion to members' reserve tranche positions. The present system has worked reasonably well in terms of harmonizing members' positions

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1/ Article V, Section 3(d) calls for taking into account "the balance of payments and reserve position of members ..." in selecting currencies for use in the operational budget.

2/ See "Principles for Calculating Amounts of Currencies Under the Fund's Operational Budgets," EBS/89/201 (10/17/89), p. 5.

in the Fund in terms of both members' holdings of gold and foreign exchange and their quotas (see Appendix Table A2). However, the present system of allocating currencies does not formally or practically take into account the costs incurred by members in their position of financing to the Fund.

Previous staff papers have discussed the practical issues that arise in using quotas as a basis for allocating currencies under the operational budget. 1/ A member's quota is a measure of its rights and obligations in the Fund and can be regarded as a reasonable indicator of a member's relative size in the international economy. However, quotas are not responsive to short-term changes in the external financial position of members; quotas are changed only infrequently, and are not an indicator of a member's ability to make foreign exchange reserves available to the Fund--quotas and reserves bear no systematic relationship to one another. In view of the great range of ratios of members' gross reserves to quotas, the equalization of members' reserve positions in the Fund as a proportion of quota would result not only in a large variance in the share of members' reserves held as reserve positions in the Fund, but also some members would hold a relatively large proportion of their total primary reserves in the form of Fund positions. 2/ This could affect members' ability--or willingness--to provide resources to the Fund, and hence could adversely affect the Fund's liquidity position. Indeed, it would not be inconceivable for the share of a member's primary reserves held in the form of a Fund position to increase to the point that it could become inconsistent with the member's reserve asset preferences. In that event, the member could well have a need in turn to draw its reserve tranche position, thus negating the longstanding aim of the Fund to avoid the use of currencies of relatively weak members to finance drawings by relatively strong members.

While reserves have traditionally played the predominant role in determining the allocation of currencies under the operational budget, quotas have, as indicated above, also been taken into account. First, receipts have traditionally been allocated in proportion to members' reserve tranche positions, i.e., the Fund's holdings of currency expressed in terms of quota. Second, the Fund has periodically decided, as under the present guidelines, that the Fund's holdings of a member's currency in terms of quota would not

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1/ See, in particular, "Principles for Calculating Amounts of Currencies Under the Fund's Operational Budgets," EBS/89/201 (10/17/89); "Calculation of Amounts of Currencies Under the Fund's Operational Budgets," EBS/90/66 (3/30/90); "Legal Aspects of the Selection of Currencies Under Article V, Section 3(d)," EBS/90/87 (5/7/90); "Statement by the Staff Representative on Policies Regarding the Allocation of Currencies Under the Fund's Operational (Currency) Budget, 1962-90," Executive Board Meeting 90/85, June 1, 1990 (Buff 90/111, 5/30/90); and Statements by Mr. Fernández-Ordóñez (Buff 89/228, 12/14/89, and Gray 90/17, 5/30/90).

2/ For example, during the 1980s the reserve tranche position in the Fund for a member could have exceeded 80 percent of its holdings of gold and foreign exchange if the allocation of currency had been made on the basis of quotas. See EBS/90/66 (3/30/90), Table 6, p. 13.

be reduced as a result of transfers below a floor established as a proportion of the average level of the Fund's holdings of currencies included in the operational budget, expressed as a percentage of quota. Such a floor has been intended specifically to achieve a more equal distribution of reserve positions in the Fund in relation to quota than would have resulted otherwise. In addition, the Fund has normally limited the use of currencies in order to retain minimum holdings equal to approximately 10 percent of quota. Thus, the Fund has exercised considerable flexibility and pragmatism in the methods used in allocating currencies under the operational budget, bearing in mind the need to balance members' positions in the Fund.

In determining the relative importance of quotas and reserves in allocating currencies, the Fund has sought to avoid an unduly skewed, and possibly unstable, distribution of reserve tranche positions, expressed in terms of either primary reserves or quotas, so as to avoid adverse consequences with regard to members' willingness to finance the Fund, and to ensure the Fund's liquidity position. As a consequence, greater or lesser weight has been periodically placed on reserves and quotas in the allocation of currencies and in the pursuit of balanced positions in the Fund. The present system, as indicated above, is an example of a relatively well balanced use of both reserves and quotas in the allocation of currencies, which has worked well under conditions of a rapidly rising demand for Fund credit.

Over the last few years, the issue has arisen of achieving a more equitable distribution in the cost of financing the Fund because of the large and rising burden of financing overdue obligations to the Fund. Some Executive Directors have argued that the distribution of the cost of financing the Fund that is incurred by creditor countries, as reflected in their total share in the burden sharing arrangements, should be based on quotas and not, as hitherto, mainly on primary reserves, and that this distribution key should therefore be used to determine the allocation of currencies in the operational budget. In view of the operational difficulties that can arise from the use of quotas in allocating currencies, as discussed above, it has been suggested that the size of a member's position in the Fund could be constrained in terms of its gold and foreign exchange reserves so as to avoid an excessively large proportion of primary reserves being held in the form of a Fund position. In the event that factors such as the cost of financing the Fund are taken into account in allocating currencies, then the task of balancing members' positions in the Fund in terms of a common standard will increase in difficulty, and it may be necessary to combine different standards of harmonizing members' positions in the Fund. The issue of the cost of financing the Fund in relation to the allocation of currencies under the Fund's operational budget is discussed in the following section.

4. <u>The cost of financing the Fund's operations</u>

The effective rate of return earned on members' reserve positions in the Fund has not until recently played a significant role in discussions of members' sharing in providing resources to the Fund through the allocation of currencies under the operational budget. The First Amendment of the Articles, which came into effect in 1969, required the Fund to pay remuneration to members on the Fund's net use of a member's normal currency subscription, i.e., when holdings of currency fell below 75 percent of quota. The rate of remuneration was fixed at 1.5 percent per annum, though it could rise to 2 percent. As a result of the Second Amendment of the Articles, which came into effect in 1978, the Fund became obliged to pay remuneration on the use of currency below the norm for remuneration which, as discussed below, was different for each member. Furthermore, the rate of remuneration was fixed in relation to the interest rate on holdings of SDRs. The rate of remuneration is now equal to the SDR interest rate. However, there are two important qualifying factors which determine remuneration actually earned (the "effective rate of remuneration"): (i) the norm for remuneration and (ii) the burden sharing arrangements.

a. Norm for remuneration - The Fund pays remuneration only on the amount by which the Fund's holdings of a member's currency are below the norm for remuneration (after deducting holdings of currency that have been excluded for the purpose of defining the reserve tranche). Since the Second Amendment of the Articles, the remuneration norm is different for each member. It is calculated for each member as the sum of 75 percent of quota at the date of the Second Amendment (April 1978), which as indicated above, had not been remunerated, plus the increases in quota consented to in the period after that date, except for any increases in quotas resulting from the sale of gold. 1/ The difference between the norm for remuneration and 100 percent of a member's quota is the unremunerated reserve tranche. While the absolute size of the unremunerated reserve tranche has remained unchanged for each member since 1978, the norm, expressed as a percentage of quota, has increased in proportion to each increase in a member's quota. Consequently, the unremunerated reserve tranche expressed as a percent of quota varies from member to member, and ranges from 11 percent of quota for Suriname and the United Kingdom (which have received below average increases in quota since 1978) to one percent for Saudi Arabia. 2/ The norm can be raised--but not lowered--to a new level not in excess of 100 percent of quota, either by increasing it to a higher percentage for each member according to a formula or principle that may result in different levels among members, provided that these new percentages of quota for individual members are determined on the basis of the same criteria for all members, or the Fund may prescribe

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1/ For members joining after April 1978, the remuneration norm is the weighted average of norms for all members at the time the new member joins the Fund, plus any subsequent increases in quota.

2/ Except for Cambodia which has not received an increase in quota since the Second Amendment came into effect and therefore has an unremunerated reserve tranche of 25 percent of quota.

100 percent of quota as the applicable percentage of quota for all members. 1/

Some Executive Directors have taken the view that the unremunerated reserve tranche, which provides interest-free resources to the Fund, should be taken into account in assessing members' contributions to the financing of the Fund and, in particular, in relation to the allocation of currencies under the operational budget and therefore, the determination of the size of members' remunerated reserve tranche positions in the Fund.

However, such a redistribution of the cost of financing the Fund raises a question of consistency with the Fund's remuneration system. As explained above, differences in norms are an integral part of that system, and a redistribution or harmonization of unremunerated reserve tranche positions through the operational budget would be contrary to Article V, Section 9. Norms could be increased only under a formula or principle that uses the same criteria for all members, or could be unified at 100 percent, by a decision taken with a majority of 70 percent of the total voting power. Furthermore, the redistribution of unremunerated reserve tranche positions would be of an order that would change the trend of harmonizing reserve tranche positions in terms of quota over time.

b. The cost of overdue obligations and burden sharing - The cost of overdue obligations to the Fund is met under the burden sharing arrangements by creditors and debtors sharing the costs of financing the Fund for unpaid charges (deferred income) and also adding to the Fund's precautionary balances. Contributions under the burden sharing arrangements are temporary, and are returned to members as and when overdue charges are paid. The effect of burden sharing reduces the rate of remuneration and hence lowers the relative financial attractiveness of holding a reserve tranche position in the Fund. Some Executive Directors have argued that the cost of burden sharing also makes it necessary to reconsider the basis for the allocation of

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1/ The Fund did not raise the norm to the level of each member's quota because "such a solution would impose too heavy a financial burden on the Fund for an indeterminate period ahead". Section G, paragraph 5 of the Report by the Executive Board to the Board of Governors on "Proposed Second Amendment to the Articles of Agreement of the International Monetary Fund" (March 1976).

currencies under the operational budget. 1/ These Directors consider that this cost should be borne in proportion to the rights and obligations that members have accepted in the Fund as measured by members' quotas, rather than by the level of their gross reserves.

As mentioned above, cost considerations have not previously been given any weight in formulating guidelines for the allocation of currencies under the operational budget, but most central banks are now more concerned about the rates of return on assets (including Fund-related assets) than they once were. A number of Directors accordingly have argued that the costs of financing overdue obligations incurred by creditors should be taken into account in allocating currencies under the operational budget. However, the distribution of burden sharing among the creditors through the reduced rate of return on remunerated reserve tranche positions raises difficult issues of equity because members have contributed to support the Fund's activities in a number of ways. These include not only through the unremunerated reserve tranche position and burden sharing with respect to overdue obligations, but also contributions to other facilities, such as the extended structural adjustment facility, subsidy accounts, and technical assistance accounts.

The cost of financing the Fund, including overdue obligations, is only indirectly related to the issue of the allocation of currencies under the operational budget. The prime aim of selecting and using currencies under the operational budget is to provide the Fund with the means for its transactions in the form of relatively strong currencies. In order to take into account some or all of the cost of financing the Fund as a factor in determining the allocation of currencies under the operational budget, it would be necessary to relate the income forgone by creditors in providing resources to the Fund to the size of a member's reserve tranche position, i.e., to the amount of currency to be transferred on a net basis under the budget.

The traditional methods of allocating currencies under the operational budget would need to be significantly modified if it were desired to relate creditors' costs of financing the Fund to their reserve position in the Fund--i.e., to determine the distribution of remunerated reserve tranche positions such that the costs incurred by the creditors in financing the Fund

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1/ "In the halcyon days when overdue obligations to the Fund did not exist, the money that each country put in the Fund was similar to cash. But with the emergence of arrears putting the money in the Fund means taking some risk. With the burden-sharing decision half of the burden of these arrears has been distributed among so-called creditor countries and the yardstick to measure the contribution is the amount of resources provided to the Fund. In consequence, each time a central bank increases the provision of ordinary resources to the Fund it is compelled to pay a bigger share of the total burden. Consequently, the changes in the Fund position are not harmless any more.... The problem arises because now the operational budget is not only a system to determine one obligation (the provision of ordinary resources) but two (the provision of resources and the contribution to finance arrears)." Mr. Fernández-Ordóñez (Buff 89/228, 12/14/89, p.7).

would be broadly equalized. The most recent discussions regarding the allocation of currencies under the operational budget have been concerned with using both the reserves criterion and the quota criterion as complementary approaches in harmonizing members' positions in the Fund. It may also be possible to conceive of relatively stable methods of allocating currencies that continue to blend these criteria while giving due regard to the desire of many Directors to directly relate the cost of financing the Fund to the size of members' reserve tranche positions. The following section explores more fully some possible approaches.

III. Alternative Methods to Take into Account the Cost of Contributing to Financing the Fund in Allocating Currencies Under the Operational Budget

As discussed above, members' contributions in the context of financing the use of the Fund's general resources--the financial costs or "burden" that they bear--may be considered to consist of two main components. 1/ These are the income forgone as a consequence of the portion of the reserve tranche on which they receive no remuneration, and the income forgone reflecting the temporarily reduced remuneration they receive on their remunerated reserve tranche position as a result of the adjustments made to the rate of remuneration to compensate the Fund for deferred income under the burden sharing arrangements and to accumulate precautionary balances in the Special Contingent Accounts. If the method to be used in allocating currencies in the operational budget is also to achieve a more equitable distribution of contributions to the financing of the Fund, then it would seem reasonable that both of these cost elements should be taken into account. However, the Fund is precluded, for legal reasons, as described above, from taking steps in the context of the operational budget that would have the effect of mitigating the differential contributions to the costs of financing the Fund that result from the wide variance of members' unremunerated reserve tranches as a percent of quota. Thus, in endeavoring to achieve a more equitable distribution among sufficiently strong members of the costs of financing the Fund, the Fund may not take into account income forgone on unremunerated resources and must limit its consideration to the income forgone on resources made available temporarily to the Fund through burden sharing adjustments to the rate of remuneration.

1/ There are, as also mentioned above, other contributions that members make in support of the Fund or Fund-related activities, e.g., contributions to the ESAF loan and subsidy accounts and participation in support groups. As a practical matter, it would be very difficult to incorporate all these cost elements into a single objective function.

The calculation of income forgone as a result of the burden sharing adjustments is not straightforward. 1/ One measure might be the amounts contributed quarterly through these adjustments, but this would take no account of subsequent refunds as deferred charges are paid, and could thus be considered to overstate the actual cost incurred by the member under burden sharing. Alternatively, taking the expectation of refunds--albeit at an uncertain date--into account, income forgone could be measured as the earnings members would have received on the cumulative amount of adjustments under burden sharing that remains outstanding. As it may take considerable time before the burden sharing adjustments are eventually refunded to members, an approximation, which is used in the simulations discussed below and which has the practical advantage of implementability, might be found between the two approaches, say, by taking as an estimate of income forgone one half of the quarterly burden sharing adjustments.

The objective would then be to allocate the use of currencies in the operational budget in such a way as to equalize or harmonize the financial contribution (or income forgone) as a consequence of the burden sharing arrangements in relation to some standard for each member included in the budget. To the extent that quotas are considered an appropriate basis for distribution of costs among the membership, they could serve as the basis for harmonization in the allocation of currency under the operational budget. Conversely, if gold and foreign exchange reserves were judged a better distribution criterion not only in circumstances when use of a currency in Fund transactions results only in an exchange of assets but also for the purpose of measuring possible contributions to financing the cost of the Fund's operations, then international reserves could also serve as an appropriate basis for harmonization.

Simulations of a system to harmonize the contributions of member countries included in the current operational budget on the basis of quota are summarized in Table 2. 2/ The table shows the members' contributions--estimated income forgone as a result of burden sharing adjustments--for the quarter expressed in absolute terms and as a percent of quota (columns 1 and 2), and members' remunerated reserve tranche positions at the beginning of

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1/ The mitigation of the U.S. share in burden sharing through calculating amounts under the operational budget is based on compensating the United States for income lost on the difference between actual burden sharing adjustments for the United States (based on its share of remunerated reserve tranche positions) and the adjustments that would be calculated based on its share of quotas. (See "'Burden Sharing'--Concepts and Techniques of Possible Adjustment of the Reserve Tranche Position of the United States through the Operational Budgets," EBS/86/280, 12/17/86.)

2/ Simulations were also run on the basis of gold and foreign exchange reserves, and these are summarized in Appendix Table A1. These latter simulations suggest that harmonization of contributions in relation to international reserves would not be a practical objective, as very large contributions would be required from members with high reserves and comparatively small quotas.

Table 2. Illustrative Calculations of Harmonization of Members' Contributions in Financing the Fund in Proportion to Quota

(In millions of SDRs unless otherwise indicated)

Member	Income Forgone: Burden Sharing Contribution (1)	Income Forgone: Contribution/ Quota (In percent) (2)	Initial Remuner-ated Reserve Tranche (3)	Target Remuner-ated Reserve Tranche 1/ (4)	Net Transfer 2/ (5)	Target Reserve Tranche/ Gold & Foreign Exchange (In percent) (6)
Austria	0.38	0.05	208.10	197.31	-10.79	3.58
Bahamas, The 3/	0.00	0.01	2.40	16.89	14.49	17.51
Belgium	0.39	0.02	212.40	529.25	316.85	8.18
Belize 3/	0.00	0.02	1.04	2.42	1.37	7.83
Botswana	0.02	0.10	12.18	5.62	-6.56	0.27
Burundi 3/	0.00	0.01	2.48	10.86	8.38	18.37
Canada	0.30	0.01	162.00	748.18	586.18	8.40
Denmark	0.35	0.05	191.00	180.88	-10.12	4.55
Fiji 3/	0.01	0.02	3.25	9.29	6.04	8.95
Finland	0.27	0.05	149.40	146.25	-3.15	4.64
France	1.44	0.03	783.80	1,140.41	356.61	5.84
Germany	3.84	0.07	2,091.70	1,374.69	-717.01	4.01
Ireland	0.18	0.05	95.36	87.36	-8.00	2.91
Italy	2.34	0.08	1,272.10	740.07	-532.03	2.38
Japan	3.81	0.09	2,072.55	1,074.40	-998.15	3.08
Korea	0.44	0.09	238.80	117.74	-121.06	1.40
Kuwait 3/	0.18	0.03	98.37	161.62	63.25	13.97
Luxembourg	0.01	0.02	7.00	19.59	12.59	...
Malaysia	0.25	0.05	138.10	140.07	1.97	2.62
Malta	0.03	0.07	17.10	11.47	-5.63	1.87
Mauritius	0.00	0.00	0.00	13.64	17.94	3.40
Netherlands	0.73	0.03	394.80	576.16	181.36	5.89
New Zealand	0.01	0.00	5.10	117.43	112.33	6.49
Norway	0.61	0.09	332.00	177.82	-154.18	2.58
Oman	0.04	0.07	23.35	16.05	-7.30	1.58
Portugal	0.27	0.07	149.35	95.81	-53.54	0.90
Qatar	0.03	0.02	13.90	29.23	15.33	7.54
Rwanda 3/	0.00	0.01	1.70	11.14	9.44	61.13
Saudi Arabia 3/	0.57	0.02	308.10	814.68	506.58	11.72
Singapore	0.09	0.10	51.15	23.51	-27.64	0.14
Solomon Islands 3/	0.00	0.01	0.14	1.27	1.13	16.66
Spain	1.16	0.09	631.73	327.16	-304.58	0.95
Sweden	0.39	0.04	212.18	270.76	58.57	2.64
Thailand	0.18	0.05	98.10	98.35	0.25	1.06
United Arab Emirates	0.22	0.11	120.42	51.54	-68.88	1.55
United Kingdom	1.04	0.02	566.00	1,575.74	1,009.74	8.13
United States	8.84	0.05	4,811.30	4,558.38	-252.92	15.12
Vanuatu 3/	0.00	0.02	1.17	2.29	1.12	12.01
Total/Average	28.44	0.05	15,479.62	15,475.32	0.00	4.73
Standard Deviation 4/		0.032				3.243
Coefficient of Variation 4/		0.608				0.813
Average 4/		0.053				3.990
Maximum 4/		0.109				15.120
Minimum 4/		0.000				0.143

1/ To equalize each member's contribution as a proportion of quota.
2/ A minus sign indicates a net receipt.
3/ Member not considered sufficiently strong for its currency to be included for transfers.
4/ For sufficiently strong members only.

the quarter, the target remunerated reserve tranche position that would equate the contribution of each member as a proportion of its quota, and the net transfer or receipt of currency that would be necessary in the quarter to reach that target (columns 3-5). Among sufficiently strong members, the average ratio of income forgone to quota during this quarter was 0.05 percent, with the ratios for individual members ranging from a minimum of zero to a maximum of 0.11 percent (column 2). The standard deviation of the ratios for these members was 0.032 percent.

As can be seen from column 5 of Table 2, adjusting members' remunerated reserve tranche positions so as to equalize income forgone under burden sharing in proportion to quota in some cases would require very large net transfers and receipts of currency. These net transfers are of a magnitude that would be very difficult--and not reasonable--to accommodate in a single operational budget. Moreover, in view of the great range of members' gross reserves relative to quotas, some members would hold a large part of their primary reserves as a reserve position in the Fund when harmonization has been achieved (column 6), which could affect their ability--or willingness--to contribute to provide resources to the Fund, and hence have an adverse impact on the Fund's liquidity position. 1/

Harmonization on the basis of quotas would tend initially to concentrate large amounts of transfers and receipts on a relatively few members, and the resulting comparatively large calls on the foreign exchange resources of some members would make it difficult to achieve harmonization in a short period of time. The harmonization process could be spread out by allocating only a portion of the total transfers and receipts during a budgetary period in order to harmonize members' contributions, and allocating the remainder in proportion to quotas on the transfers side and in proportion to reserve tranche positions on the receipts side. The part allocated to harmonize contributions could be set in such a way as to achieve harmonization over a reasonable time period, and thereby avoid the currency of any one member being used in an operational budget in excessive amounts. For example, and other things remaining equal, in current circumstances using one eighth of the amount of currencies proposed for transfers and receipts to harmonize members' contributions would move a considerable distance toward harmonization in eight quarterly operational budgets.

To gain some impression of the results of such an approach, simulations were run comparing the outcomes of operating the present system of currency allocation (with the floor on the Fund's holdings of currencies relative to the average set at one half rather than two thirds) and the system described in the preceding paragraphs for a period of eight quarters. These

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1/ It would, of course, be possible to constrain the harmonization of members' contributions relative to quota so that the reserve position for any member would not exceed a certain proportion of the member's gold and foreign exchange reserves; the proportion could be set as a fixed share or as some multiple of the average proportion for all members.

simulations are summarized in Table 3. Column 1 of the table indicates the required adjustment in members' remunerated reserve tranche positions to equalize their contributions (income forgone) under burden sharing relative to quota (from column 5 of Table 2). Columns 2-4 and 5-7, respectively, give cumulative transfers, receipts, and net transfers of currencies under the current allocation system and the alternative combined system, taking into account the increase in currency use that is tentatively projected to occur over the next two years as a result of the expansion of Fund credit. 1/ Column 8 shows the difference in net transfers over the period under the two systems, and column 9 sets out members' contributions as a proportion of quota following operation of the combined system for eight budgetary quarters. The final two columns indicate members' reserve positions in the Fund at the end of two years as a proportion of their current holdings of gold and foreign exchange, and the Fund's holdings of currencies at that time relative to current quotas.

The simulations suggest that the combined method of allocation could well achieve its aim of bringing about a better harmonization of members' contributions under burden sharing. As indicated in column 9, by the end of the two-year period the contribution/quota ratios of sufficiently strong members would be highly concentrated around the average ratio for these members of 0.06 percent, with a standard deviation of 0.014 percent. However, achieving this result would require that net transfers be concentrated on a comparatively small group of members (Belgium, Canada, France, the Netherlands, the United Kingdom, and the United States), while the reserve positions of some members would be reduced significantly (Germany, Italy, Japan, and Spain) (column 7). Not unexpectedly, some members would hold a sizable portion of their gold and foreign exchange reserves in the form of a position in the Fund (column 10). 2/

A further simulation was made which aimed at avoiding comparatively large shifts in the distribution of reserve tranche positions while at the same time giving some weight to the harmonization of contributions under the burden sharing arrangements. For this purpose, the method that takes into account the income forgone by member countries was combined with the current method based on the guidelines first adopted by the Executive Board in 1979. Under that system, allocations of transfers are based on gold and foreign exchange reserves, but are constrained by quotas in that transfers would not reduce the Fund's holdings of members' currencies relative to quota below a certain proportion of the average for all members considered sufficiently strong (and also that working balances of members' currencies as a certain

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1/ The extent of actual currency use will depend very much on the media of payment for the reserve asset portion of quota increases and the policy agreed by the Executive Board after these asset payments on the level of the Fund's SDR holdings.

2/ As mentioned, it would be possible to incorporate a constraint to avoid use of any member's currency to an extent that could be considered excessive, either on quarterly transfers or on the reserve position in the Fund as a proportion of total reserve holdings.

Table 3. Simulation Results of Current Method of Currency Allocation and Alternative Combined Approach 1/

(In millions of SDRs unless otherwise indicated)

Member	Required Amount 2/ (1)	Current Method Transfers (2)	Current Method Receipts (3)	Current Method Net (4)	Alternative Approach 1/ Transfers (5)	Alternative Approach 1/ Receipts (6)	Alternative Approach 1/ Net (7)	Difference Col. (7)-Col. (4) (8)	Contribution/ Quota (In percent) (9)	Reserve Tranche/ Gold & Foreign Exchange (In percent) (10)	Fund Holdings/ Quota (In percent) (11)
Austria	-10.79	154.45	98.34	56.11	111.57	89.27	22.30	-33.81	0.05	4.03	61.59
Bahamas, The 3/	14.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	5.92	88.86
Belgium	316.85	177.05	129.44	47.61	437.55	137.67	299.87	252.26	0.05	7.98	67.57
Belize 3/	1.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	4.55	79.86
Botswana	-6.56	6.90	4.80	2.10	1.02	3.94	-2.91	-5.01	0.08	0.42	52.42
Burundi 3/	8.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	8.50	83.07
Canada	586.18	257.73	157.56	100.17	678.87	170.73	508.14	407.97	0.04	7.76	67.86
Denmark	-10.12	115.88	87.71	28.17	102.28	82.71	19.57	-8.60	0.05	5.10	61.24
Fiji 3/	6.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	4.64	82.19
Finland	-3.15	112.46	70.55	41.91	82.71	62.94	19.76	-22.15	0.05	5.18	62.31
France	356.61	546.54	400.00	146.54	800.50	386.88	413.61	267.07	0.05	6.06	64.92
Germany	-717.01	931.43	828.53	102.90	777.36	947.29	-169.93	-272.83	0.07	5.25	57.03
Ireland	-8.00	85.93	46.82	39.11	49.40	41.33	8.07	-31.04	0.06	3.30	61.07
Italy	-532.03	866.34	544.55	321.79	418.50	596.88	-178.38	-500.17	0.07	3.22	53.81
Japan	-998.15	1,037.81	807.04	230.77	607.55	971.34	-363.79	-594.56	0.07	4.50	52.44
Korea	-121.06	161.32	95.39	65.93	66.58	109.49	-42.91	-108.84	0.08	2.19	53.35
Kuwait 3/	63.25	0.00	32.56	-32.56	0.00	29.47	-29.47	3.09	0.02	6.69	86.60
Luxembourg	12.59	0.00	0.00	0.00	5.49	0.00	5.49	5.49	0.03	...	77.29
Malaysia	1.97	148.33	71.79	76.54	80.07	58.49	21.58	-54.96	0.05	2.89	62.55
Malta	-5.63	17.50	8.29	9.21	6.48	7.91	-1.43	-10.64	0.06	2.38	56.39
Mauritius	17.94	10.80	0.00	10.80	15.54	0.00	15.54	4.74	0.04	2.97	68.77
Netherlands	181.36	272.35	197.27	75.08	404.95	191.54	213.41	138.33	0.05	6.14	65.42
New Zealand	112.33	51.96	22.58	29.38	115.42	23.50	91.92	62.54	0.04	5.70	68.04
Norway	-154.18	202.84	136.76	66.08	100.56	157.63	-57.07	-123.15	0.07	3.63	52.08
Oman	-7.30	20.11	9.74	10.37	9.07	9.74	-0.67	-11.04	0.07	2.17	61.28
Portugal	-53.54	164.03	78.52	85.51	54.18	68.40	-14.22	-99.73	0.07	1.18	56.35
Qatar	15.33	9.93	6.62	3.31	23.22	7.10	16.11	12.80	0.05	7.71	69.53
Rwanda 3/	9.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	24.80	85.28
Saudi Arabia 3/	506.58	0.00	97.05	-97.05	0.00	87.82	-87.82	9.23	0.01	3.51	92.08
Singapore	-27.64	25.33	20.42	4.91	13.29	24.95	-11.65	-16.56	0.08	0.21	47.24
Solomon Islands 3/	1.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	5.34	89.32
Spain	-304.58	446.91	273.93	172.98	185.00	298.02	-113.01	-285.99	0.07	1.38	51.99
Sweden	58.57	307.17	123.20	183.97	178.67	96.57	82.10	-101.87	0.05	2.82	64.72
Thailand	0.25	208.86	68.83	140.03	55.62	41.50	14.11	-125.92	0.05	1.18	62.31
United Arab Emirates	-68.88	59.89	41.73	18.16	29.15	55.10	-25.95	-44.11	0.09	2.76	51.52
United Kingdom	1,009.74	590.14	435.99	154.15	1,331.78	448.30	883.48	729.33	0.04	7.68	65.30
United States	-252.92	2,330.00	2,404.00	-74.00	2,577.65	2,093.52	484.14	558.14	0.05	16.91	61.10
Vanuatu 3/	1.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	7.69	77.78
Total/Average	0.00	9,320.00	7,300.00	2,020.00	9,320.00	7,300.00	2,020.00	0.00	0.05	5.19	62.94
Standard Deviation 4/									0.014	3.283	
Coefficient of Variation 4/									0.240	0.749	
Average 4/									0.058	4.383	
Maximum 4/									0.086	16.908	
Minimum 4/									0.030	0.214	

1/ The alternative combined approach allocates one eighth of transfers and receipts in proportion to the required amounts to equalize members' contributions in financing the Fund in proportion to quota, and seven eighths in proportion to quota.
2/ From Table 2, column 5. Note that the required amounts so calculated would not exceed the Fund's holdings of a member's currency or the total reserve tranche position of the member at the time of the calculation.
3/ Member not considered sufficiently strong for its currency to be included for transfers.
4/ For sufficiently strong members only.

proportion of quota would be maintained). Allocations of receipts are based on reserve tranche positions in the Fund.

Under this approach, part of the allocation of transfers and receipts in a budget would be based on the system introduced in June 1990, and the remainder would be allocated in order to equalize members' income forgone under burden sharing as a proportion of quota. As discussed above, in view of the difficulties associated with too rapid an adjustment of positions, it is for consideration whether the pace should not be such as to aim for substantial progress toward the required harmonization, other things remaining equal, over a period of, say, two years. This would parallel the practices developed for the designation plan in aiming at harmonized positions of excess SDR holdings to gold and foreign exchange reserves. There are, of course, many ways in which these two methods could be combined, both in terms of the weight attached to quotas under the system presently in use--e.g., by varying the limit below which holdings of a member's currency would not be reduced--and as regards the proportion of the proposed use of currencies that is to be determined by one or the other method. For example, considerable harmonization could be achieved if one sixth of the budgeted amounts for transfers and receipts would be allocated in proportion to the required amounts calculated under the approach aimed at equalizing income forgone by members relative to quota, with the remaining five sixths allocated essentially on the basis of the guidelines currently in effect. As a portion of transfers and receipts would be allocated to equalize income forgone by members relative to quota, it is suggested that the floor on the Fund's holdings of members' currencies that acts as a constraint on the allocation of the remainder of transfers be set at one half, the proportion in effect until March 1991. 1/

1/ Specifically, the remaining five sixths of transfers and receipts would be allocated as follows:

(i) On the transfer side of the budget, currencies will be allocated in proportion to members' gold and foreign exchange reserves, as reported in *IFS*, provided that the Fund's holdings of a member's currency in terms of quota shall not be reduced below a floor of one half of the average ratio for all sufficiently strong members at the end of the budget period, and working balances of at least ten percent of quota will be maintained;

(ii) U.S. dollars will be used in transfers, to the extent feasible, in order to maintain the Fund's holdings of U.S. dollars relative to quota close to the average level for other sufficiently strong members;

(iii) On the receipt side of the budget, currencies will be allocated in proportion to the reserve tranche position of members, provided that such use shall not raise the Fund's holdings of a member's currency above its norm for remuneration;

(iv) Currencies of members with no outstanding purchases and with relatively large reserve tranche positions that are not considered sufficiently strong would be used in receipts only with their agreement.

Table 4, which is identical in layout to Table 3, compares the outcomes after eight budgetary quarters of the operation of such a system of currency allocation and the operation of the present system. As can be seen from column 9 of that table, over two years this combined approach also would go a considerable way toward equalizing the contributions of sufficiently strong members under burden sharing as a proportion of quota. Relative to an average ratio of 0.07 percent, the standard deviation of the ratios is 0.023 percent. Although in most cases not quite as large as under the purely quota-based approach, net transfers for some members, particularly Belgium, Canada, France, the Netherlands, Sweden, and the United Kingdom, would still be considerable, while for others (particularly those with a large quota) the impact would be much smaller or even reverse (the United States). As a proportion of gold and foreign exchange reserves (column 10), members' reserve positions in the Fund would show less variance under this approach than under the purely quota-based approach. The balance provided by this approach would appear to be preferable in seeking to establish the various criteria that should, in present circumstances, be taken into account in agreeing on new guidelines for the allocation of currencies under the operational budget. 1/

IV. Concluding Observations

1. The present guidelines on the selection of currencies for use in the Fund's operational budget were agreed by the Executive Board in June 1990. They were to be implemented for a trial period up to the end of 1991 or until the quota increases under the Ninth General Review became effective, whichever was earlier. These guidelines have generally worked well--at a time when Fund credit was expanding significantly. They have achieved a reasonable harmonization of members' reserve positions in the Fund in terms of both their holdings of gold and foreign exchange and their quotas (see Appendix Table A2).

2. In connection with the review of the guidelines, the staff was requested by the Executive Board to examine (i) the role and function of gross international reserves, as reported in *IFS*, as an indicator of members' relative ability to contribute to the financing of the use of the Fund's general resources by members with a balance of payments need, taking into account the expansion and integration of international financial markets, with the resulting development that members' international liquidity position now comprises a broad spectrum of assets of varying characteristics; and (ii) the impact of the burden sharing arrangements and members' unremunerated reserve tranche positions on the traditional methods of allocating currencies under the operational budget, and in particular the possibility of taking into account more explicitly than hitherto the cost of acquiring a Fund position in the method of allocating currencies under the operational budget.

1/ Changes can be expected to occur outside the system which could cause actual outcomes to depart significantly from the simulation results.

Table 4. Simulation Results of Current Method of Currency Allocation and Alternative Combined Approach 1/

(In millions of SDRs unless otherwise indicated)

Member	Required Amount 2/ (1)	Current Method: Transfers (2)	Current Method: Receipts (3)	Current Method: Net (4)	Alternative Approach 1/: Transfers (5)	Alternative Approach 1/: Receipts (6)	Alternative Approach 1/: Net (7)	Difference Col. (7)-Col. (4) (8)	Contribution/ Quota (In percent) (9)	Reserve Tranche/ Gold & Foreign Exchange (In percent) (10)	Fund Holdings/ Quota (In percent) (11)
Austria	-10.79	154.45	98.34	56.11	128.71	85.95	42.76	-13.35	0.06	4.30	58.95
Bahamas, The 3/	14.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	5.92	88.86
Belgium	316.85	177.05	129.44	47.61	331.89	107.87	224.03	176.42	0.04	7.09	71.21
Belize 3/	1.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	4.55	79.86
Botswana	-6.56	6.90	4.80	2.10	5.75	6.43	-0.68	-2.78	0.10	0.50	42.31
Burundi 3/	8.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	8.50	83.07
Canada	586.18	257.73	157.56	100.17	555.83	131.30	424.53	324.36	0.04	7.08	70.71
Denmark	-10.12	115.88	87.71	28.17	96.57	76.84	19.72	-8.45	0.05	5.10	61.22
Fiji 3/	6.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	4.64	82.19
Finland	-3.15	112.46	70.55	41.91	93.72	59.96	33.76	-8.15	0.06	5.52	59.88
France	356.61	546.54	400.00	146.54	662.93	333.33	329.60	183.06	0.05	5.74	66.80
Germany	-717.01	931.43	828.53	102.90	776.19	956.29	-180.10	-283.00	0.07	5.23	57.22
Ireland	-8.00	85.93	46.82	39.11	71.61	41.99	29.62	-9.49	0.07	3.84	54.80
Italy	-532.03	866.34	544.55	321.79	721.95	651.05	70.90	-250.89	0.08	3.82	45.24
Japan	-998.15	1,037.81	807.04	230.77	864.84	1,042.62	-177.78	-408.55	0.08	4.91	48.03
Korea	-121.06	161.32	95.39	65.93	134.43	124.38	10.05	-55.88	0.10	2.73	41.91
Kuwait 3/	63.25	0.00	32.56	-32.56	0.00	27.13	-27.13	5.43	0.02	6.87	86.23
Luxembourg	12.59	0.00	0.00	0.00	7.33	0.00	7.33	7.33	0.03	...	74.90
Malaysia	1.97	148.33	71.79	76.54	124.76	59.83	64.93	-11.61	0.07	3.50	54.68
Malta	-5.63	17.50	8.29	9.21	14.58	9.00	5.59	-3.63	0.09	3.22	40.83
Mauritius	17.94	10.80	0.00	10.80	19.44	0.00	19.44	8.64	0.05	3.67	61.49
Netherlands	181.36	272.35	197.27	75.08	332.48	164.39	168.09	93.01	0.05	5.79	67.42
New Zealand	112.33	51.96	22.58	29.38	108.66	18.82	89.84	60.46	0.04	5.62	68.49
Norway	-154.18	202.84	136.76	66.08	169.03	171.14	-2.10	-68.18	0.09	4.23	44.22
Oman	-7.30	20.11	9.74	10.37	16.76	10.83	5.93	-4.44	0.09	2.76	50.82
Portugal	-53.54	164.03	78.52	85.51	136.69	85.28	51.41	-34.10	0.10	1.65	38.93
Qatar	15.33	9.93	6.62	3.31	17.20	5.52	11.68	8.37	0.04	6.74	73.39
Rwanda 3/	9.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	24.80	85.28
Saudi Arabia 3/	506.58	0.00	97.05	-97.05	0.00	80.88	-80.88	16.17	0.01	3.60	91.86
Singapore	-27.64	25.33	20.42	4.91	21.11	27.27	-6.16	-11.07	0.09	0.24	41.30
Solomon Islands 3/	1.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	5.34	89.32
Spain	-304.58	446.91	273.93	172.98	372.43	341.18	31.25	-141.73	0.09	1.70	40.77
Sweden	58.57	307.17	123.20	183.97	290.06	102.67	187.39	3.42	0.07	3.61	54.82
Thailand	0.25	208.86	68.83	140.03	174.05	57.36	116.69	-23.34	0.10	2.00	35.78
United Arab Emirates	-68.88	59.89	41.73	18.16	49.91	60.32	-10.41	-28.57	0.10	3.19	43.85
United Kingdom	1,009.74	590.14	435.99	154.15	1,079.25	363.33	715.93	561.78	0.04	7.08	68.00
United States	-252.92	2,330.00	2,404.00	-74.00	1,941.86	2,097.07	-155.21	-81.21	0.05	15.36	64.67
Vanuatu 3/	1.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	7.69	77.78
Total/Average	0.00	9,320.00	7,300.00	2,020.00	9,320.00	7,300.00	2,020.00	-0.00	0.05	5.19	62.94
Standard Deviation 4/									0.023	2.795	
Coefficient of Variation 4/									0.338	0.620	
Average 4/									0.068	4.508	
Maximum 4/									0.102	15.357	
Minimum 4/									0.034	0.238	

1/ The alternative combined approach allocates one sixth of transfers and receipts in proportion to the required amounts to equalize members' contributions in financing the Fund in proportion to quota, and five sixths in accordance with the current method.

2/ From Table 2, column 5. Note that the required amounts so calculated would not exceed the Fund's holdings of a member's currency or the total reserve tranche position of the member at the time of the calculation.

3/ Member not considered sufficiently strong for its currency to be included for transfers.

4/ For sufficiently strong members only.

3. As regards reserves and liquidity, the large expansion in international liquidity, incorporating a range of assets and borrowing facilities of both an official and private character, has probably tended to reduce the demand for primary reserves for many countries with access to a broad spectrum of assets. However, the available evidence does not appear to suggest that the significance of primary reserves has fundamentally declined in relation to international payments. Furthermore, reserves continue to have characteristics--more certain availability and usability--that distinguish them from other forms of international liquidity. In the staff's view, primary reserves continue to be a relevant indicator on which to base the distribution of Fund financing. Movements in reserves are indicative of changes in a member's overall balance of payments position and tend to reflect changes in short-term strength or weakness in members' external positions. Furthermore, the acquisition of a reserve position in the Fund is a substitution of assets within the *IFS* definition of primary reserves and does not risk making the member illiquid. Finally, using reserves as a basis for allocating currencies establishes a direct relationship between the provision of resources to the Fund and the liquid resources members have available for this purpose. These considerations continue to be relevant in the determination of the allocation of currencies under the operational budget.

4. As regards the cost incurred by members in their financing of the Fund's operations, central banks have become more concerned about the rates of return on assets, including Fund-related assets, than they were in the past. The emergence and continued increase in overdue financial obligations to the Fund, along with the burden sharing arrangements that have been adopted to protect the Fund from the effects of arrears on its income and financial position, have increased the cost of substituting a reserve position in the Fund for foreign exchange reserves. A number of Executive Directors have argued that the cost incurred under the burden sharing arrangements should be taken into account in the allocation of currencies under the operational budget. Furthermore, other Directors have noted that members contribute financially to support the Fund's activities in different ways. While not all of them can easily be quantified, one of the more significant burdens that some members incur in financing the Fund is the income forgone on their unused unremunerated reserve tranche positions. For many members this burden substantially exceeds the temporary costs incurred under the burden sharing arrangements. These unremunerated positions are part of the interest-free resources of the Fund; their cost to members is the rate of remuneration that is forgone.

5. These elements, such as income forgone because of the temporary burden sharing arrangements or a member's unremunerated reserve tranche, have not hitherto been taken into account in determining the allocation of currencies under the operational budget. As regards members' unremunerated reserve tranche positions, which were deliberately created as a result of the Second Amendment of the Articles and could be effectively decreased only in accordance with the relevant provisions of the Articles, it is not feasible to take them into account because to effect a redistribution through the operational budget would be contrary to Article V, Section 9. In contrast, it would be

feasible to take into account the reduced remuneration under the burden sharing arrangements in determining the allocation of currencies under the operational budget, and simulations have been presented to show the effects of doing so.

6. Two alternative approaches were used to illustrate how the harmonization of the cost of financing the Fund's operations as a result of the burden sharing arrangements could be taken into account. Other things remaining equal, both of these approaches would move a considerable distance toward this objective within, for example, eight quarterly operational budgets. One such simulation was based on equalizing income forgone as a consequence of the burden sharing arrangements in proportion to quota for the members included in the operational budget. Harmonization on the basis of quota would tend, at least initially, to concentrate large amounts of transfers and receipts on relatively few members. Consequently, simulations were also made in which only a portion--one eighth--of the total transfers and receipts during a budgetary period were used to harmonize members' costs, and the remainder was allocated in proportion to quotas on the transfer side and in proportion to reserve tranche positions on the receipts side. While this system would tend rapidly to equalize members' contributions under burden sharing as a proportion of quota, net transfers would again be concentrated on a relatively small group of countries and the reserve positions of some of the strongest creditors (Germany and Japan) would be reduced significantly.

7. A simulation was also made which combined a system of harmonizing members' contributions under burden sharing with the current method of allocating currencies, which is based on the 1979 guidelines: allocations of transfers are based on gold and foreign exchange reserves (with transfers of U.S. dollars based on ad hoc proposals as at present), subject to the constraint that transfers would not reduce the Fund's holdings of members' currencies relative to quota below a certain proportion of the average for all members in the operational budget; the floor is set at 50 percent (as compared with two thirds currently in effect); and allocations of receipts are based on reserve tranche position. For illustrative purposes, the allocation was made on the basis of one sixth of total transfers and receipts to help harmonize contributions under burden sharing and five sixths on the current system. Again other things remaining equal, this approach would also go a considerable way toward equalizing contributions over a period of, say, two years. The impact on the size of net transfers for individual members would be smaller than under the quota-based system, though in several cases they would still be substantial. The balance provided in this mixed system would appear to be desirable in seeking to incorporate the various criteria that Executive Directors agreed at the last review of the guidelines should be taken into account in allocating currencies under the operational budget.

8. Executive Directors may wish to consider whether costs--measured as income forgone--that are incurred by members as a consequence of the temporary burden sharing arrangements should be taken into account in connection with the operational budget. It should be noted that any system to equalize members' contributions has the potential to cause very large shifts in members' positions in the Fund; to avoid changes in members' Fund

positions which could importantly affect the willingness of members to provide resources, and to avoid any adverse impact on the Fund's liquidity position, the implementation of any such scheme would need to be modest and spread over a considerable period of time.

9. Furthermore, the timing of the introduction of a change in the guidelines to accommodate cost considerations is of considerable significance. In this regard, it is important to recall that the increases in quotas under the Ninth General Review will bring into the Fund large absolute amounts of currencies and SDRs. The currency composition of the reserve asset payments to be made by members will not be known until after the quota increases have come into effect and members have paid for the increases. The Fund's policies on the amount of SDRs it wishes to hold will need to be reviewed in the light of the payments of reserve assets. In the past, the Fund has tended to sell off the greater part of SDRs received from increases in quotas relatively quickly, and in these circumstances the operational budget on the transfer side was to an important extent a budget to sell SDRs. Given these circumstances, the Executive Board may wish to consider whether, if it would wish to introduce any of the approaches discussed above, it would be desirable to introduce it at the present time or whether it would be preferable to delay any change in the present guidelines in the allocation of currencies under the operational budget until after the coming into effect of the increases in quotas and after the Executive Board has reviewed the Fund's policies on the level of its SDR holdings.

Table A1. Illustrative Calculations of Harmonization of Members' Contributions in Financing the Fund in Proportion to Gold and Foreign Exchange

(In millions of SDRs unless otherwise indicated)

Member	Income Forgone: Burden Sharing Contribution (1)	Income Forgone: Contribution/ GFE (In percent) (2)	Initial Remuner-ated Reserve Tranche (3)	Target Remuner-ated Reserve Tranche 1/ (4)	Net Transfer 2/ (5)	Target Reserve Tranche/ Gold & Foreign Exchange (In percent) (6)
Austria	0.38	0.005	208.10	263.67	55.57	4.48
Bahamas, The 3/	0.00	0.004	2.40	4.46	2.06	7.56
Belgium	0.39	0.005	212.40	301.28	88.88	5.49
Belize 3/	0.00	0.005	1.04	1.50	0.45	5.64
Botswana	0.02	0.001	12.18	90.29	78.11	3.61
Burundi 3/	0.00	0.005	2.48	3.03	0.55	9.15
Canada	0.30	0.002	162.00	433.99	271.99	5.82
Denmark	0.35	0.006	191.00	192.59	1.59	4.77
Fiji 3/	0.01	0.004	3.25	4.99	1.74	5.89
Finland	0.27	0.007	149.40	149.00	-0.40	4.70
France	1.44	0.006	783.80	924.22	140.42	5.01
Germany	3.84	0.009	2,091.70	1,575.79	-515.91	4.47
Ireland	0.18	0.004	95.36	144.22	48.86	4.31
Italy	2.34	0.006	1,272.10	1,485.47	213.37	4.16
Japan	3.81	0.009	2,072.55	1,592.76	-479.79	4.24
Korea	0.44	0.004	238.80	351.54	112.74	3.77
Kuwait 3/	0.18	0.014	98.37	45.38	-52.99	4.84
Luxembourg	0.01	...	7.00	0.00	-7.00	...
Malaysia	0.25	0.004	138.10	253.98	115.88	4.22
Malta	0.03	0.004	17.10	29.51	12.41	4.05
Mauritius	0.00	0.000	0.00	20.07	24.37	4.54
Netherlands	0.73	0.006	394.80	454.34	59.54	4.94
New Zealand	0.01	0.000	5.10	92.29	87.19	5.52
Norway	0.61	0.007	332.00	328.83	-3.17	4.21
Oman	0.04	0.004	23.35	40.10	16.75	3.72
Portugal	0.27	0.002	149.35	495.58	346.23	3.77
Qatar	0.03	0.006	13.90	16.18	2.28	4.67
Rwanda 3/	0.00	0.012	1.70	0.93	-0.77	21.83
Saudi Arabia 3/	0.57	0.008	308.10	257.90	-50.20	4.03
Singapore	0.09	0.000	51.15	813.76	762.61	3.61
Solomon Islands 3/	0.00	0.003	0.14	0.36	0.22	7.50
Spain	1.16	0.003	631.73	1,595.75	964.02	3.79
Sweden	0.39	0.003	212.18	475.09	262.90	4.17
Thailand	0.18	0.001	98.10	441.79	343.69	3.83
United Arab Emirates	0.22	0.006	120.42	127.01	6.58	3.67
United Kingdom	1.04	0.004	566.00	997.23	431.23	6.07
United States	8.84	0.021	4,811.30	1,469.53	-3,341.77	7.63
Vanuatu 3/	0.00	0.008	1.17	0.93	-0.24	6.77
Total/Average	28.44	0.007	15,479.62	15,475.32	0.00	4.73
Standard Deviation 4/		0.004				0.889
Coefficient of Variation 4/		0.850				0.196
Average 4/		0.005				4.544
Maximum 4/		0.021				7.630
Minimum 4/		0.000				3.610

1/ To equalize each member's contribution as a proportion of holdings of gold and foreign exchange.
2/ A minus sign indicates a net receipt.
3/ Member not considered sufficiently strong for its currency to be included for transfers.
4/ For sufficiently strong members only.

Table A2. Members' Reserve Tranche Positions in the Fund, June 1, 1990 and December 1, 1991

(In millions of SDRs unless otherwise indicated)

Member	June 1, 1990 Reserve Tranche Position (RTP) 1/	June 1, 1990 RTP as Percent of GFE (RTP/GFE) 1/	June 1, 1990 RTP as Percent of Quota (RTP/QTA)	December 1, 1991 Reserve Tranche Position (RTP) 1/	December 1, 1991 RTP as Percent of GFE (RTP/GFE) 1/	December 1, 1991 RTP as Percent of Quota (RTP/QTA)
AUSTRIA	255.0	3.9	32.9	275.7	3.7	35.5
BAHAMAS, THE 2/ 3/	8.0	6.3	12.0	7.1	5.7	10.8
BAHRAIN 2/	28.0	4.7	57.3	...	...	...
BELGIUM	325.0	3.8	15.6	374.9	4.6	18.0
BELIZE 3/	...	...	...	1.9	4.6	20.1
BOTSWANA	18.0	0.8	81.4	13.4	0.5	60.8
BURKINA FASO 2/	8.0	4.3	25.3	...	...	...
BURUNDI 2/ 3/	8.0	12.7	18.7	7.2	8.5	16.9
CANADA	388.0	3.9	13.2	437.0	3.6	14.9
CYPRUS	17.0	2.2	24.4	...	...	...
DENMARK	230.0	3.8	32.3	255.9	4.7	36.0
FIJI 2/ 3/	8.0	6.0	21.9	6.8	4.8	18.5
FINLAND	167.0	2.8	29.0	197.0	4.7	34.3
FRANCE	1,008.0	4.9	22.5	1,158.8	4.5	25.8
GERMANY	2,139.0	4.5	39.6	2,492.0	5.6	46.1
GREECE 2/	83.0	4.7	20.8	...	...	...
IRELAND	116.0	3.6	33.8	125.6	3.1	36.6
ITALY	1,082.0	2.6	37.2	1,521.6	3.7	52.3
JAPAN	2,402.0	4.7	56.9	2,372.6	5.3	56.2
KOREA	221.0	2.0	47.8	259.2	2.6	56.0
KUWAIT 3/	119.0	5.2	18.7	114.6	9.0	18.0
LUXEMBOURG	...	...	...	12.3	...	15.9
MALAYSIA	167.0	2.9	30.3	185.0	2.6	33.6
MALTA	22.0	2.3	48.8	21.2	2.6	47.0
MAURITIUS	...	...	...	1.2	0.2	2.2
NETHERLANDS	504.0	3.7	22.3	570.2	4.5	25.2
NEW ZEALAND	44.0	1.8	9.5	55.8	2.2	12.1
NORWAY	412.0	5.0	58.9	392.4	4.3	56.1
OMAN	26.0	2.9	41.2	25.1	2.2	39.8
PARAGUAY 2/	12.0	4.3	24.8	...	...	...
PORTUGAL	115.0	1.3	30.5	179.1	1.3	47.5
QATAR	18.0	4.7	15.7	18.8	4.1	16.3
RWANDA 2/ 3/	7.0	17.1	16.0	6.4	24.8	14.7
SAUDI ARABIA 3/	422.0	9.4	13.2	341.6	4.7	10.7
SINGAPORE	79.0	0.5	85.5	60.0	0.3	64.9
SOLOMON ISLANDS 3/	...	...	...	0.5	5.3	10.7
SPAIN	882.0	2.9	68.6	730.5	1.6	56.8
SWAZILAND	0.0	0.0	0.0	...	...	...
SWEDEN	250.0	3.1	23.5	293.4	2.2	27.6
THAILAND	29.0	0.3	7.5	131.6	1.1	34.0
UNITED ARAB EMIRATES	128.0	3.8	63.2	124.2	3.5	61.3
UNITED KINGDOM	1,180.0	4.7	17.7	1,265.6	4.5	20.4
UNITED STATES	6,650.0	14.6	36.6	6,486.3	15.7	36.2
VANUATU 3/	...	...	...	1.6	6.2	17.9
TOTAL/AVERAGE	19,547.0	4.4	32.2	20,524.1	4.7	31.8
STANDARD DEVIATION 4/		1.82 5/	20.94		1.62 5/	16.78
COEFFICIENT OF VARIATION 4/		0.56 5/	0.61		0.54 5/	0.46
AVERAGE 4/		3.28 5/	34.17		2.99 5/	36.88
MAXIMUM 4/		9.37 5/	85.50		5.64 5/	64.94
MINIMUM 4/		0.00 5/	0.00		0.20 5/	2.24

1/ The RTP and GFE data are those reported in the operational budget papers for the budgetary periods beginning on June 1, 1990 (EBS/90/112, 6/15/90) and December 1, 1991 (EBS/91/189, 11/19/91). Dots (...) in all three columns for a date indicate a member was not included in the budget for transfers or receipts.

2/ Member not considered sufficiently strong for its currency to be included for transfers in the June-August 1990 operational budget.

3/ Member not considered sufficiently strong for its currency to be included for transfers in the December 1991-February 1992 operational budget.

4/ For sufficiently strong members only.

5/ Excluding the United States.