FOR AGENDA

EBS/86/280

CONFIDENTIAL

December 17, 1986

To: Members of the Executive Board

From: The Secretary

Subject: "Burden Sharing" - Concepts and Techniques of Possible Adjustment of the Reserve Tranche Position of the United States Through the Operational Budgets

Attached for consideration by the Executive Directors is a paper on concepts and techniques of a possible adjustment of the reserve tranche position of the United States through the operational budgets to mitigate its share in "burden sharing."

Mr. David Williams (ext. 8305) or Mr. Dhruba Gupta (ext. 7627) is available to answer technical or factual questions relating to this paper prior to the Board discussion, which has been tentatively scheduled for Tuesday, January 13, 1987.

Att: (1)

CONFIDENTIAL

INTERNATIONAL MONETARY FUND

"Burden Sharing" - Concepts and Techniques of Possible Adjustment of the Reserve Tranche Position of the United States Through the Operational Budgets

Prepared by the Treasurer's Department

Approved by W. O. Habermeier

December 17, 1986

I. Introduction

Among the understandings reached by the Executive Board on the principles of burden sharing and on the financing of overdue obligations for FY 1987 and FY 1988, the Executive Board agreed that "Techniques will be studied, and implemented as practical, of adjusting, in the context of the operational budget, the share of the United States in total remunerated positions with a view to mitigating the share of the United States in the amount of burden sharing to be assumed by the creditor countries." 1/ The mechanism for burden sharing that was agreed at the end of July 1986 (Executive Board Decision No. 8348-(86/122) adopted July 25, 1986, which is reproduced in Appendix I) is operative for FY 1987 and FY 1988, after which a new decision will be taken on how to cope with the financing of overdue obligations in the Fund.

This paper examines the issues and techniques that arise in connection with an examination of mitigating the cost to the United States of its share in burden sharing in the context of the operational budget, while preserving the thrust of the general principles and procedures that presently underlie the allocation of currencies in the operational budgets. Section II of the paper considers the factors bearing on the position of the United States in the burden sharing process. Section III discusses whether, and to what extent, the share of the United States in burden sharing might be reduced, taking into account some longer-run factors that bear on the financial position of the United States in the Fund. In Section IV some techniques are considered which could be used to mitigate the burden for the United States in financing overdue obligations; Section V contains some general conclusions.

II. U.S. Position in the Fund

The decision on burden sharing provides, inter alia, for a downward adjustment in the rate of remuneration, subject to certain limits, at the end of a given adjustment period to help finance deferred income and

1/ See the "Managing Director's Concluding Remarks at Informal Meeting on Principles of Burden Sharing and the Fund's Income Position", July 17, 1986 (Buff 86/144, 7/31/86).

to share in the increase in the reserve target from 5 percent to 7.5 percent. The absolute amount of the adjustment of remuneration for any individual member will, therefore, depend on the size of its remunerated reserve tranche position. The remunerated reserve tranche position for a member is determined by the level of its remuneration "norm" and on the past net use of a member's currency.

1. Remunerated reserve tranche

Remuneration is paid to a member on the amount by which the Fund's holdings of its currency, less any holdings that are subject to decisions on exclusions under Article XXX(c), are below the "norm". The remuneration "norm" is determined by 75 percent of a member's quota as of April 1, 1978, plus subsequent increases in its quota. 1/ The use of a member's currency held above the "norm" is not remunerated by the Fund.

The "norm" for remuneration will differ among members, depending on the size of the increases in their quotas since April 1, 1978, though the absolute size of the nonremunerated reserve tranche is equal to 25 percent of quota in effect on April 1, 1978. Those countries that for a variety of reasons received below average increases in quotas (mainly because they participated to a much smaller extent in selective quota increases than in general increases) have relatively low remuneration "norms" and those that experienced above average quota increases since 1978 will have high remuneration "norms" so that almost all their reserve tranche position will be remunerated. The United States, whose increases in quota since 1978 have been below the average increase, has a nonremunerated reserve tranche that is relatively large in terms of quota, so that its cost of financing the Fund is relatively high compared with those members with relatively high "norms" and relatively small nonremunerated reserve tranche positions. 2/ The effective rate of remuneration--i.e., taking into account the nonremunerated reserve tranche position--thus is lower for countries with relatively low "norms" as compared with those with relatively high "norms". The effective rate of remuneration for the United States is relatively low.

2. Allocation of U.S. dollars under the operational budget

The remuneration "norm" determines the effective rate of remuneration for a member. The Fund does not, however, allocate the amounts of currency under the operational budget on the basis of members' financial

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1/ For members joining the Fund after April 1978, the norm is calculated as the weighted average of the norms applicable to all other members on the date on which the member joined the Fund, plus any increase in quota consented to and paid subsequent to the date on which the member joined the Fund.

2/ The "norm" for the United States is 90.65 percent compared with the average "norm" of 91.71 percent. See "'Norm' for Remuneration" (EBD/84/51, 2/17/84).

interests in the Fund, such as maximizing net income, and the use of currencies by the Fund does not take into account a member's remunerated reserve tranche position. The Fund's policies concerning the operational budget are based on the balance of payments and reserve positions of members and developments in their exchange markets as well as the desirability of promoting over time balanced positions in the Fund. A fundamental principle underlying the operational budget is the aim to harmonize members' total reserve tranche positions (which include outstanding borrowing by the Fund that is regarded as revolving credit, such as borrowing under the GAB, but not other "temporary" borrowing by the Fund) to their gold and foreign exchange holdings (see Appendix II). It is, therefore, of considerable significance that, as indicated by Executive Directors at EBM/86/124 (7/30/86), any mitigation arrangement through an adjustment of the size of the remunerated reserve tranche should not radically alter or distort the principles, or their application, which underlie the operational budget.

The harmonization principle generally followed in the allocation of currencies has been modified as applied to the United States because U.S. holdings of gold and foreign exchange reserves are not an adequate measure of the ability of the United States to participate in the financing of the Fund. The U.S. dollar is the predominant trading and reserve currency of the international monetary system and sales of U.S. dollars by the Fund are in practice converted into other currencies by the purchasing member only infrequently. While other currencies also serve a reserve currency function to some extent, sales of these currencies by the Fund are, with some exceptions, converted into U.S. dollars by the purchasing member. In fact, the use of the U.S. dollar in the Fund's operational budget for transfers is based on certain ad hoc proposals. These ad hoc proposals have taken into account considerations such as: (a) the level of the Fund's holdings of U.S. dollars and the relationship of these holdings to the total of the Fund's holdings of usable currencies; (b) the overall net use of U.S. dollars in relation to the overall net demand for the use of the Fund's resources; and (c) the relative strength of the U.S. dollar in the exchange markets. At the same time, the receipt of currencies, including U.S. dollars, received by the Fund has normally been allocated in proportion to individual members' reserve tranche positions in the Fund.

3. Use of U.S. dollars by the Fund

Table 1 shows the distribution of remunerated reserve tranche positions in the Fund since end-1981. The evolution of members' positions include not only net use of currencies under the operational budget, but also other payments and receipts such as the payment of quota increases, administrative payments and the use of currencies in the payment of remuneration. As can be seen from the table, the U.S. share in the total of remunerated positions rose from 22 percent at the end of 1981 to 37 percent at the end of 1983. These were years of rapid expansion in the use of Fund credit and holdings of U.S. dollars were high compared with the Fund's holdings of other currencies. Fund liquidity was also relatively

Table 1. Evolution of Remunerated Reserve Tranche Positions, 1981-1986

(Billions of SDRs)

	Total for All Members	of which: United States	of which: Others in the Budget 1/	United States as percent of Total (%)
(End of Period)				
1981	8.7	1.9	5.2	21.8
1982	11.7	3.8	6.8	32.5
1983	20.9	7.7	12.1	36.8
1984	22.7	8.8	13.0	38.8
1985	21.0	8.1	11.9	38.6
1986 (end-November)	19.0	7.2	10.8	37.9 2/
Projected 3/				
1988 (end-April)	19.0	6.2	12.0	32.6 2/

1/ "Others in the budget" include all those members, other than the United States, whose currencies were included in the September-November 1986 budget.

2/ The U.S. share in remunerated reserve tranche positions of members in the operational budget is at present 40 percent; this share is projected to decline to 34 percent by mid-1988.

3/ The amounts are tentative. They are projected on the basis of data in the last liquidity review (EBS/86/187) and it is assumed that the method of calculation in the budgets will be broadly in line with the method that has been most generally followed since end-1981 for allocating U.S. dollars. Larger payments outside the operational budgets are also taken into account.

low during this period, which immediately preceded the coming into effect of the quota increases approved under the Eighth General Review of Quotas, and the exchange rate for the U.S. dollar in the exchange markets was generally strong. Since 1983, the U.S. position has remained relatively stable at close to 38 percent of the total of remunerated reserve tranche positions as net use of ordinary resources has slowed.

The remunerated reserve tranche of the United States has been reduced by about SDR 1.6 billion, or 9 percent of present quota, over the last two years, while the remunerated reserve tranche positions of other members whose currencies are included for sales in the operational budget have decreased by about 5 percent of their present quotas. In addition, and on the assumption that the Fund's holdings of SDRs would not be reduced below the target level of SDR 1 billion for May 31, 1987, and that the present allocation method for the U.S. dollar would be continued, it is projected that the reserve tranche position of the United States will decline by a further SDR 1 billion over the next six quarters, while the reserve tranche positions of the majority of other members are likely to increase. This projected net contraction in the use of U.S. dollars would reduce the share of the United States in total remunerated positions from 38 percent at present to approximately 32 percent by mid-1988.

Table 2 shows the net use of ordinary and borrowed resources in the financing of the Fund's operations and transactions for each year since 1981. 1/ As regards the use of ordinary resources, net use of U.S. dollars since the end of 1981 has amounted to SDR 3.0 billion (or about 20 percent of the average quota for the United States during the period), as compared with net use of the equivalent of SDR 2.1 billion of other currencies included in the operational budget at present (or 6 percent of average quotas for these countries during the period). In terms of the total net expansion of Fund credit financed by ordinary and borrowed resources since 1981, the share of the United States amounted to about 25 percent, or SDR 3.1 billion, compared with net use of other currencies amounting to SDR 9.4 billion. In terms of quota, the amount of U.S. dollars and other currencies sold by the Fund (including lending) in the financing of net credit extended amounted to 17 percent and 22 percent of their quotas respectively over the period since end-1981. Quotas as such do not, however, serve as an allocative mechanism in the distribution of currencies under the operational budget, though, of course, the Fund's holdings of a currency are a limitation on use.

In the light of the above, it may be concluded that the use of U.S. dollars by the Fund has been broadly in line with the principles that guide such use. On the one hand, the relatively large net use of U.S. dollars since 1981 as compared with the use of other usable currencies reflected not only the relatively large holdings of U.S.

1/ Lending to the Fund and the acquisition of SDRs through designated and other transactions should also be considered as elements in the member's participation in financing the Fund.

Table 2: Contribution by Members in Financing Under Operational Budgets and Under Borrowing Arrangements: 1981 - 1986

(Billions of SDRs)

Position at End of Period	Reserve Tranche Positions (arising from net use of currencies under budgets) 1/		Net Lending to Fund 2/		Total (Cols. 1 & 2)		Total (Cols. 1 & 2) as Percent of Quota		Total (Cols. 1 & 2) as Percent of GFE	
	United States	Others	United States	Others	United States	Others	United States (%)	Others (%)	United States 3/ (%)	Others (%)
	(1)		(2)		(3)		(4)		(5)	
1981	3.6	9.2	0.7	5.2	4.3	14.4	34.1	52.1	(24.4)	7.0
1982	5.4	10.4	1.1	6.5	6.5	16.9	51.6	61.1	(35.1)	9.0
1983	7.8	13.2	1.4	10.8	9.2	24.0	51.3	56.5	(60.4)	12.1
1984	8.7	13.4	1.3	12.0	10.0	25.4	55.8	59.8	(62.5)	12.0
1985	7.7	12.5	1.1	13.1	8.8	25.6	49.1	60.2	(42.1)	12.0
1986 (end-November)	6.6	11.3	0.8	12.5	7.4	23.8	41.3	56.0	(32.1)	10.4
Financing end 1981 - end November 1986*	3.0	2.1	0.1	7.3	3.1	9.4				
	(under budgets)		(under borrowing arrangements)		(under budgets plus borrowing arrangements)					

Note: "Others" in this table includes all of those members, other than the United States, whose currencies were included in the September-November 1986 operational budget.

1/ The data at end-1981 are the actual reserve tranche positions of the members shown. Subsequent end of year data show the reserve tranche positions that would have resulted if the only changes in the reserve tranche positions arose from operations under the budgets (i.e., excluding other effects on reserve tranche positions, for example from quota payments, administrative payments and remuneration payments in currencies).

2/ The data shows outstanding lending to the Fund at the end of each period. Loans by the BIS are included in lending by "others".

3/ Certain percentages are shown in parenthesis because, as indicated in the paper, the ratios of reserve tranche position to gold and foreign exchange reserves are not comparable in the case of the United States.

dollars and the relative strength of the U.S. dollar in the foreign exchange market, but also the substantial contribution of other countries in the financing of the Fund through lending. On the other hand, and taking into account the overall financing of the net expansion of Fund credit since 1981, there are no indications of an underuse of U.S. dollars, including, for example, the share of the United States in the total of reserve tranche positions. While consideration of mitigating the burden of financing the Fund by the United States may be based on factors other than net use of the U.S. dollar by the Fund, the extent of any mitigation should take into account the prospective sharp reduction in the size of the U.S. position in the Fund by mid-1988. Bearing in mind the amount of net use of U.S. dollars since 1981 and the prospective changes in the U.S. position in the Fund, there would not seem to be a need for large scale adjustment of the U.S. position through the operational budget.

III. Measurement of Burden

It is difficult both to define the concept of "burden" and to measure it with any precision when taken in the context of the Fund. A number of different approaches could be conceived in measuring burden, which in part depend on the type of burden to be borne by the member. If burden is defined as the financial "costs" of membership in the Fund, then such costs take a number of different forms and depend on the individual financial positions of members in the Fund, in particular whether a member is a creditor or debtor in the Fund, and also on the extent to which it is a debtor or creditor. 1/ In this paper, the discussion of burden is placed in the context of the agreement in the Executive Board on burden sharing that was reached in July 1986.

1. Overdue obligations and burden sharing

The financial costs of overdue obligations in general, and deferred income in particular, are in themselves specific in terms of lower operational income and higher remuneration expense incurred by the Fund and the consequential reduced net income position needs to be financed. The decision on burden sharing, therefore, provides for the financing of the reduction in net income--or deficit--by raising operational income and reducing remuneration expense on a *pari passu* basis. As with the adjustments to the rate of charge, the burden of financing deferred income through a reduction in remuneration will be reversed for eligible members on a regular basis by means of refunds when deferred income is paid.

Two main issues arise in this context: (i) the measurement of the cost to creditor members as a result of the reduction in the amount of remuneration from what it would otherwise have been in the absence of

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1/ For a more extensive discussion of the financial burden of membership in the Fund, see "Factors Relating to Burden Sharing in the Fund" (EBS/85/126, 5/14/85).

financing overdue obligations; and (ii) the distribution of the cost of financing overdue obligations among the creditor members.

(i) Measurement of burden - In EBS/85/126 (5/14/85), the cost of financing the Fund was discussed in terms of the interest loss incurred by a member when the rate of remuneration is a below market rate of return and reserve assets are held largely in market-related assets. 1/ It is also possible to consider the cost of financing the Fund as the rate of return obtained by the member, not only on its remunerated reserve tranche, but also after taking into account the nonremunerated reserve tranche. In this case, the effective rate of remuneration would be compared with the return obtained on reserve assets held in market form. Neither of these burdens, which are common to all members with reserve tranche positions in the Fund, are the subject for mitigation of the costs of financing overdue obligations in the Fund. However, a reduction of the burden in financing the Fund can be effected through a reduction in the net use of a member's currency by the Fund because the rate of return on the investment of the proceeds resulting from a reduction in a member's reserve tranche position as a result of a reduction in net use of currency would tend to be higher than the rate of remuneration, if any, that is no longer received. 2/

The burden resulting from the reduction in remuneration as a result of the application of the burden sharing decision can be measured by the loss of revenue which is equivalent to the reduction in remuneration experienced by the creditor. However, the reduction in the rate of remuneration below the level that it would have been in the absence of overdue obligations is temporary because the assets equivalent to the reduced remuneration will be refunded when deferred income is paid. Thus, another approach is conceivable under which the burden could be regarded as the loss of interest income on the amount of remuneration that has been withheld by the Fund to help finance the cost of overdue obligations. The first concept of burden--i.e., the loss of revenue

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1/ A complication of comparing effective returns on SDR-denominated Fund positions with non SDR-denominated assets arises because of exchange risk if reserve assets are invested by the member in non SDR-denominated assets. This complication may at times be important.

2/ It has also been suggested that the cost of borrowing by the member to finance Fund transactions should be taken into account in determining the cost of financing the Fund. Apart from the exchange risks involved for the member in raising resources in domestic markets that are used by the Fund so that the member acquires an SDR-denominated position, it is not apparent that the domestic cost of borrowing by the member to finance Fund transactions will normally be above the rate of remuneration. A proper comparison of the cost of borrowing by the member to finance Fund transactions in relation to the rate of remuneration received from the Fund would need to be based on a common SDR-denominated cost--e.g., the SDR interest rate or the five-year SDR interest rate used in Fund borrowing from SAMA.

arising from the temporary reduction in remuneration--could be regarded as more consistent with the approach followed under the burden sharing decision.

In view of the above considerations, the following discussion is confined to analyzing possible arrangements to offset part of the cost that arises as a result of a temporary reduction in the amount of remuneration from what it would otherwise have been in the absence of financing overdue obligations.

(ii) Distribution of burden - As regards the distribution of sharing the burden of financing deferred income, an Executive Director has suggested that the distribution be based on the quota shares of creditor countries. As was indicated in EBS/85/126, quotas may be regarded as a broad indicator of ability to pay, but they "are not satisfactory as criteria for the distribution of financial costs and returns because, while quotas measure relative positions at a particular time, they do not reflect the day-to-day costs of financing the Fund that arise as a result of the Fund's operations and transactions with members. There would not appear to be an operational method to redistribute these costs along the lines of quota or voting shares." 1/

A related issue is the effect on the Fund's operations of the method chosen for mitigating the burden to individual countries of financing overdue obligations. The Fund has not adopted a system whereby the allocation of currencies under the operational budget would be determined on the basis of members' quotas, because quotas do not reflect the relative strength of members' external financial positions (balance of payments and reserve position) and their capacity to finance a reserve position in the Fund. In view of the changing circumstances of the external financial positions of members, and which are reflected in changes in the usability of their currencies by the Fund in the operational budget, reserve tranche positions do not bear any systematic relation to members' quotas (which are changed only relatively infrequently). Mitigation of the burden related to overdue obligations which is based on quota shares could result in relative changes in members' positions in the Fund that would be inconsistent with the application of the principles underlying the operational budget and, in particular, could result in a shift away from harmonized positions of members.

The reduction in remuneration calculated in accordance with the burden sharing decision is determined as a proportion of members remunerated reserve tranche positions. As indicated above, the size of a member's reserve tranche position (including the remunerated reserve tranche) reflects the amount of net use of that member's currency by the Fund. While the amount of net use of a member's currency has significant implications for the member in its share in financing the Fund, the amount of net use of a currency by the Fund is not itself determined under the operational budget by financial incentives or disincentives

1/ See EBS/85/126 (5/14/85), p. 3.

resulting from gains or losses deriving from interest rate or exchange rate changes caused by such use. (In some instances, the rate of return on certain loans to the Fund has been considered, together with other features, as a justification for the exclusion of loans from the harmonization of Fund positions.) However, consideration of possible arrangements to mitigate the cost to individual members of financing overdue obligations needs effectively to focus on the extent to which the cost of the reduction in remuneration can be mitigated through a reduction of a member's remunerated reserve tranche position, taking into account the principles underlying the operational budget.

2. Factors bearing on the amount of possible mitigation

Any consideration of the amount of possible mitigation of the cost of financing overdue obligations through a reduction in remuneration needs to take into account the following factors:

(i) The decision on burden sharing provides for financing (a) an increase in the reserve target of the Fund from 5 percent to 7.5 percent of reserves at the beginning of the financial year; and (b) net new deferral of charges for any adjustment period, which initially was determined on a six monthly basis but is now defined on a quarterly basis. Both actions derive from the problem of overdue obligations to the Fund. The increase in the reserve target strengthens the Fund as a whole, not only as a protection against existing overdue obligations, but also against potential further difficulties in the future. Additions to reserves are not reversible, although it is not precluded that a higher rate of reserve accumulation in one period may be followed by a lower rate of reserve growth as the problem of overdue obligations to the Fund is resolved or treated in other ways. 1/ In contrast, the burden of providing the Fund with assets to compensate for deferred income is expected to be temporary and reversible. In view of the difference between strengthening the Fund through an increase in reserves and financing deferred income that is expected to be temporary, it would not seem unreasonable to draw a distinction between the burden created by each of these actions and to confine any mitigation arrangements to the cost of financing deferred income.

(ii) It will be recalled that the decision on burden sharing provides for the proceeds from any reduction in the amount of remuneration

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1/ In addition, it will be recalled that in the Managing Director's summing up of the Executive Board discussion on burden sharing, he noted that "For any financial year after 1988, in which the problem of overdue obligations to the Fund remain serious, the reserve target will remain at 7.5 percent unless a decision by the Executive Board on provisioning will have altered the treatment of the problem in the meantime." (Buff 86/151, 7/31/86). For recent discussions of the Fund's reserves, see "The Level and Growth of the Fund Reserves and the Determination of Fund Charges" (EBS/83/251, 11/25/83) and "Factors Bearing on the Adequacy of Fund Reserves" (EBS/85/125, 5/14/85).

payments (and increase in the rate of charge) in FY 1987 and FY 1988 to be distributed to members that have experienced a reduction in the rate of remuneration (or paid higher charges) "when, and to the extent that, charges, the deferral of which had given rise to the same adjustment, are paid to the Fund." The burden sharing decision provided for semi-annual distributions but will now be made quarterly in line with the recent decision to make adjustments to the rates of charge and of remuneration on a quarterly basis. In view of the ongoing, though somewhat unpredictable, discharge of deferred charges in later periods, it would seem reasonable that any mitigation of the costs resulting from burden sharing would be calculated on the basis of: (i) any net new deferrals (new deferrals in a quarter less any discharge of those deferrals during that quarter); and (ii) less the refunds resulting from the payment of income deferred since May 1, 1986. If refunds exceed net new deferrals for any adjustment period, the question arises whether and to what extent mitigation should be reduced or eliminated. (This point is discussed in Section IV below.)

(iii) The Fund has not concluded that there is a probability of loss as regards its overdue obligations, and no conclusion has been drawn by the Fund that income that is now deferred will not subsequently be received. As a consequence, it would seem reasonable to regard the reduction in remuneration payments as a temporary withholding of assets by the Fund, which is expected to reverse itself, and the extent of mitigation should reflect the temporary nature of the problem.

3. Basis for possible mitigation for the United States

In calculating the amount of mitigation that might be considered for the United States with respect to the first half of FY 1987, the following data may be used:

(i) Net new deferred income for the first half of FY 1987 amounted to SDR 73.2 million, of which the creditors' share amounts to SDR 36.6 million.

(ii) Over the first six months of FY 1987 the average remunerated position of the United States amounted to SDR 7,465 million compared with total average remunerated positions of SDR 19,560 million, or 38.16 percent on average in the first half of FY 1987.

(iii) The increase in the reserve target for FY 1987 to be financed by the creditors is SDR 7 million. This amount has been excluded from consideration of the amounts to be mitigated for the United States.

(iv) The temporary reduction in remuneration payments to finance deferred income in the first half of FY 1987 amounts for the United States to SDR 14 million.

(v) The U.S. share in the quotas of creditor countries (i.e., those members holding a remunerated reserve tranche position) amounts to 25.2 percent, without prejudice to the view that a member's share in quotas is not considered an appropriate measure for distributing the cost of financing overdue obligations in the Fund (see pp. 9-10).

The temporary reduction of remuneration for the United States represents a loss of income or revenue to the United States and, in the light of the understanding reached by the Executive Board in July when the decision on burden sharing was agreed and the considerations discussed above, it would seem feasible to mitigate part of the cost assumed by the United States in financing deferred income. It would need to be understood, however, that the amounts of mitigation, however calculated, could not be of an order that would distort the working of the principles underlying the operational budget.

A loss of revenue for the United States of SDR 14 million resulting from the reduction in remuneration for the first half of FY 1987 translates into SDR 28 million for FY 1987 assuming the same level of deferrals in the second half of FY 1987 and no refunds. It is generally not possible to transfer amounts of remuneration to the United States either as a result of intercreditor transfers or through the Fund. However, it is possible to calculate an amount of resources that would be needed to generate income equivalent to the reduction in remuneration for the United States. At the present five-year SDR interest rate of 7 percent, such an amount would be SDR 400 million. Such a calculation could provide a basis from which to calculate the extent of any mitigation for the United States with respect to the reduction in its remuneration in the first half of FY 1987. It will be recalled, however, that the adjustment of the rate of remuneration is based on actual developments of deferred income and adjustments will be made on a quarterly basis for this reason and also to take into account refunds related to prior periods. These subsequent adjustments would, of course, affect the actual amount of mitigation to be carried out in any one quarter.

It is also to be noted that a member incurs a loss of interest because it does not receive the amount of remuneration that it would have received in the absence of deferred income. The amount of resources needed to compensate the amount of interest lost as a result of the reduction in remuneration amounts to approximately SDR 28 million per annum as long as deferred income remains unpaid.

4. Fxtent of mitigation

While full compensation with respect to the amount of the reduction in remuneration for the United States would be inconsistent with the concept of burden sharing, the extent to which the reduction in remuneration should be mitigated is not apparent. In the first place, as mentioned above, the remunerated reserve tranche position of the United States will contract sharply over the next 18 months, from 38 percent of total remunerated positions to approximately 32 percent of total remunerated positions by mid-1988. This relatively large prospective mitigation for the United States through the normal working of the operational budget should be taken into account in considering the amount of mitigation over the period to mid-1988. It is for consideration how significant a weight this factor should be given in determining the amount of mitigation, but it may be noted that the periods of mitigation with respect to burden sharing and the net inflow of U.S. dollars would essentially coincide to mid-1988. 1/

Second, in calculating the amount of mitigation that might be considered with respect to the reduction in remuneration experienced by the United States for the first half of FY 1987, it would seem reasonable to indicate a number of approaches. One approach would apply a particular percentage, say, for illustrative purposes, one half of the calculated amount of the burden (this is referred to as Method 1 below). Another approach could relate the amount of mitigation for the United States to the amount of the burden borne by other creditors (this is referred to as Method 2 below). It would be possible, for example, to determine the extent of mitigation for the United States on the basis of, say, the difference between the reduction in remuneration for the United States and the member with the next largest reduction in remuneration (Germany), i.e., a reduction factor of approximately one third for the first half of FY 1987.

A third approach (Method 3), which has been suggested by an Executive Director, would be to calculate the amount of mitigation on the basis of the difference between the reduction in remuneration calculated on the basis of shares in the quotas of creditor countries and the amount calculated on the basis of the shares in remunerated reserve tranche positions. As explained above, quotas are not accepted as a measure of financial burden in the Fund nor for determining the allocation of currencies under the operational budget. This does not mean, in the staff's view, that quota shares could not be used on an ad hoc basis as one technique among others to calculate the amounts of mitigation. The Executive Board may find such a technique acceptable as a means of calculating on an ad hoc basis, for approval in each operational budget, an amount of mitigation without, of course, committing the Fund to use quotas or quota shares as a standard for redistributing burdens in the Fund among members. 2/

1/ This will hold irrespective of the method that might be chosen for the harmonization of positions of other members than the United States because the allocation of U.S. dollars is made on the basis of ad hoc proposals.

2/ An example of an ad hoc use of an allocative mechanism without accepting the principles behind such a mechanism was the willingness of the Executive Board to agree to limit the use by the Fund of the currencies of countries with small quotas but high external reserves. This practice was formally endorsed on the occasion of each operational budget, though it was not agreed as a principle of allocation of currencies.

The results of the various calculation methods presented above are summarized in Table 3. As can be seen from that table, if the actual reduction of remuneration for the first half of FY 1987 is annualized (i.e., it is assumed that there are no refunds resulting from the payment of deferred income incurred in the first half of FY 1987), the loss of remuneration for the United States would amount to SDR 28 million for FY 1987. The amount of resources that would be needed to yield an amount, at the present five-year SDR interest rate of 7 percent, equivalent to the loss of remuneration of SDR 28 million, would be SDR 400 million. From this base it would be possible to calculate an amount of mitigation, using a number of approaches. One approach would be to mitigate, for example, one half of the reduction in remuneration. A second method could relate the amount of mitigation to the next creditor most affected by the reduction in remuneration. A third method would determine the extent of mitigation by the difference between the actual loss of remuneration by the United States and the loss of remuneration calculated on the basis of the share of the United States in the quotas of creditor countries. If the amounts of mitigation calculated on the basis of these three methods were distributed on the basis of four successive operational budgets, they would yield SDR 50 million, SDR 30 million, and SDR 34 million a quarter.

IV. Techniques to Mitigate Cost of Burden Sharing to the United States

1. Mitigation through operational budget

In view of the expectation that the loss of assets due to deferred income will be reversed, and the relatively small dimension of mitigating for the cost of the temporary withholding of assets, it would not appear necessary to amend the decision which governs the allocation of currencies under the operational budget to take specific account of the effects of burden sharing on individual members. However, and as noted above, it would seem reasonable to spread the amount of mitigation over four successive operational budgets. Furthermore, each successive quarterly adjustment in the rate of remuneration resulting from changes in net deferred income of the previous quarter would be reflected, on an annualized basis, in the calculation of mitigation for each quarterly operational budget. As can be seen from the illustrative calculations presented above, the amount of adjustment in the use of U.S. dollars for mitigation under the current operational budget would be limited, depending on the technique chosen to calculate the amount of mitigation, to between SDR 30-50 million a quarter. Any mitigation following the first quarter would be recalculated to take into account net new deferred income during subsequent quarterly adjustment periods less refunds made with respect to previous periods. Mitigation with respect to net new deferrals would, of course, be implemented in the operational budgets subsequent to the end of each adjustment period. It would also be necessary to reverse the amounts of previous mitigation when the assets that had been withheld from members to finance deferred income are restored to the creditors when deferred income is paid. A reversal of

Table 3. Illustrative Calculations to Mitigate Burden of the United States in the Financing of Deferred Income

(In millions of SDRs)

	Actual U.S. Share (1)	U.S. Share Reduced to the Difference Between U.S. and Germany (2)	U.S. Share Reduced by Difference Between Shares in Remunerated Positions and in Creditors' Quotas (3)
A. Reduction in remuneration on annual basis	28	19.4	18.4
B. Capitalization at 7 percent to yield income equal to A	400	280	263
C. Extent of mitigation	1/2	1/3	B(1) less B(3)
D. Amount to be mitigated	200	120	137
E. Distribution of mitigation amount over four budgets	50	30	34
F. Capitalization of interest foregone	28	18.6	n.a.

Note: In column (2) the U.S. share in financing the cost of deferred income is reduced to the difference between the reduction in remuneration for the U.S. and the member with the next highest share in burden sharing (Germany), yielding a mitigation factor of approximately one-third of the amount calculated in B(1).

In column (3) the share of the U.S. in financing the cost of deferred income is reduced by the difference between the capitalized amount of the reduction of remuneration calculated on the basis of the U.S. share in creditors' quotas (annual amount of SDR 263 million) and the capitalized amount of the actual reduction in remuneration (annual amount of SDR 400 million).

The distribution of mitigation (line D) is spread over four quarterly budgets (line E), which would be adjusted on the basis of actual developments as regards deferrals following the present quarter.

Line F represents the interest foregone on the projected shortfall in the amount of remuneration for FY 1987 assuming no refunds (SDR 2 million) capitalized at 7 percent (SDR 28 million). Reduction of this amount by one-third results in SDR 18.6 million.

previous mitigation in these circumstances would, of course, avoid any permanent mitigation. (As indicated above, any mitigation based solely on the basis of interest foregone as a result of the reduction in remuneration would be small, of the order of SDR 28 million for FY 1987.)

Furthermore, it is suggested that any mitigation of the cost of burden sharing incurred by the United States, or any reversal of mitigation, could be effected through the receipts side of the operational budget. It would not be proposed to adjust the amounts of U.S. dollars for transfers because use of the U.S. dollar in transfers has recently been largely for operational payments, including payments to lenders and for making operational payments to the United States itself at its option.

2. Impact of mitigation for the United States on positions of other members

Mitigation for the United States by adjusting the reserve tranche position of the United States, taking account of the present methods of allocating receipts and transfers, would result in the reserve tranche positions of other countries whose currencies are included in the operational budget for receipts being maintained at somewhat higher levels than would otherwise be the case. If the reduction in receipts for countries other than the United States is allocated in proportion to the amounts of receipts otherwise calculated for them, mitigation for the United States would most affect those members that have the largest absolute reserve tranche positions. The reduction in the amount of currencies to be used in receipts for other countries than the United States is likely to be small, and would be widely dispersed if the amounts were reduced proportionately, so the reduction in the amount of receipts is unlikely to affect the harmonization principle.

Though the impact of the mitigation arrangements discussed above on the operational budget is likely to be small, the effects of mitigation on the working of the operational budget should be reviewed in connection with each operational budget. A review would also be appropriate in the event that the method of allocating currencies under the operational budget would change. In any event, a review would be needed in connection with the review of the burden sharing decision itself, which will take place before the end of FY 1988.

V. Conclusions

The following conclusions may be drawn from the above discussion:

1. On the basis of recent past use of U.S. dollars in the financing of the expansion of Fund credit since 1981, and in view of the prospective reduction in the size of the U.S. position in the Fund over the period to mid-1988, it does not appear necessary to effect a large-scale mitigation arrangement for the United States through the operational

budget with respect to the reduction in remuneration arising from the burden sharing decisions which are effective until the end of FY 1988.

2. In view of the difference between strengthening the Fund through an increase in reserves, which is not automatically reversible, not only as a protection from existing overdue obligations but also against potential further difficulties, and financing of deferred income that is expected to be temporary and reversible, it would seem reasonable to distinguish between the costs to individual members that are incurred by each of these actions and to confine any mitigation arrangements to the cost of financing of deferred income.

3. The burden that arises from the reduction of remuneration to finance deferred income in the Fund results in a loss of revenue to the member that experiences a reduction in remuneration. The loss of remuneration will be refunded when deferred income is discharged. In these circumstances, the burden of the reduction in the rate of remuneration could conceivably also be deemed to be equivalent to loss of interest that would have been earned if the full amount of remuneration had been paid in the absence of deferred income. The first concept of burden--i.e., the loss of revenue resulting from the reduction in remuneration--could be regarded as more consistent with the approach followed under the burden sharing decision on the temporary financing of deferred income. It would, therefore, seem reasonable to base mitigation on a calculation of the amount of resources, say at the present five-year SDR interest rate, that would be needed to generate the equivalent of the loss of remuneration.

4. In determining the extent of mitigation for the United States, considerable weight might be given to the projected contraction in the remunerated reserve tranche position of the United States to mid-1988, during which time the share of the United States in total remunerated positions is expected to decline from 38 percent at present to 32 percent.

5. Full compensation for the effective cost arising from the reduction in remuneration would be inconsistent with the concept of burden sharing itself. It is, therefore, for consideration how much of the burden resulting from the reduction in remuneration might be mitigated. A number of approaches were considered:

(i) to reduce the amounts calculated to generate the equivalent of the loss of remuneration by a particular proportion, say, for illustrative purposes, by one half;

(ii) to relate the amount of the mitigation to the amount of reduction in remuneration experienced by other creditors. For illustrative purposes, the amount of mitigation might be based on the difference between the cost of financing a reduction of remuneration to the United States and the cost to the member with the next largest reduction in remuneration. On the basis of the reduction in remuneration for the first half of FY 1987, this would result in a mitigation factor of one third of the amounts calculated to generate the equivalent of the loss of remuneration.

(iii) Another approach which has been suggested would be to calculate the amount of mitigation on the basis of the difference between the amount calculated to yield the equivalent of the loss of remuneration on the basis of shares in the quotas of creditor countries and such an amount calculated on the basis of average remunerated positions for the first half of FY 1987.

As regards this latter technique, it will be recalled that quotas are not accepted as a principle for the measurement of financial burden in the Fund nor for determining the allocation of currencies under the operational budget. Nevertheless, quota shares could be used on an ad hoc basis as one technique among others to calculate the amounts of mitigation. The use of such a technique would not commit the Fund to use quotas or quota shares as a standard for measuring financial burdens in the Fund among members.

6. Mitigation that might be agreed for the first half of FY 1987, could be spread over four successive operational budgets. Furthermore, each successive quarterly adjustment in the rate of remuneration resulting from changes in net new deferred income and refunds made with respect to payment of deferred income from past periods would be reflected, on an annualized basis, in the calculation of mitigation for each quarterly operational budget.

7. It would be necessary to reverse the amounts of previous mitigation when the assets that had been withheld from members to finance deferred income are restored to the creditors as and when deferred income is paid. A reversal of previous mitigation in these circumstances would, of course, avoid any permanent mitigation.

8. Given the present basis of allocating currencies in the operational budget, mitigation may be best accommodated through an adjustment on the receipts side of the budget for the United States and the receipts for other members in proportion to the amounts that would have been calculated for them in the absence of mitigation.

9. While there does not appear to be much scope for relatively large-scale mitigation without affecting the overall objective of harmonizing members' positions in the Fund, it is unlikely that the methods of calculating mitigation presented above would yield amounts for potential mitigation that would radically alter or distort the working of the principles underlying the operational budget.

10. Increasing the amount of receipts for the United States would result in other members' reserve tranche positions in the Fund being somewhat higher than would otherwise be the case, and the effects of mitigation would fall more heavily on those with the largest absolute reserve

tranche positions. On the basis of the methods of calculations indicated in this paper, the reduction in the amounts of currencies to be used in receipts for other countries is likely to be small and would be widely dispersed if the amounts were reduced proportionately.

11. If there should be changes in the method of allocating currencies under the operational budget, then the method of implementing mitigation would be reviewed. The effects of mitigation would also be reviewed, as necessary, in the context of each operational budget that makes provision for mitigation. The burden sharing decision will be reviewed before the end of FY 1988, and it would be appropriate to review at that time any mitigation arrangements that may be in place.

Executive Board Decision No. 8348-(86/122) adopted July 25, 1986

Decision on Principles of "Burden Sharing", the Fund's Income Target for FY 1987 and 1988, Rate of Charge, and Rate of Remuneration

Section 1. Principles of "Burden Sharing"

1. The financial consequences for the Fund which stem from the existence of overdue financial obligations shall be shared between debtor and creditor member countries.

2. This sharing shall be applied in a simultaneous and symmetrical fashion.

Section II. Income Target for FY 1987 and 1988

1. During financial year 1987 and financial year 1988, the Fund's net income target shall be raised from 5 percent to 7.5 percent of the Fund's reserves at the beginning of each year. The additional net income shall be generated in accordance with the provisions of Section V. It shall be recorded separately in the financial statements of the Fund.

2. For financial year 1988, the Fund may decide to add supplemental income to be generated in accordance with the provisions of Section V. It shall be recorded separately in the financial statements of the Fund.

Section III. Rate of Charge

1. (a) The rate of charge referred to in Rule I-6(4) shall be determined at the beginning of financial year 1987 and financial year 1988. This determination shall be made on the basis of the estimated income and expense of the Fund during the year and the target amount of net and supplemental income for the year, and shall include the adjustment necessary to generate one-half of the additional net income and of the supplemental income for the year.

(b) During financial year 1987 and financial year 1988, when estimating income, no deduction shall be made for projected deferred income.

2. During financial year 1987 and financial year 1988, the rate of charge shall be further adjusted in accordance with the provisions of Section V.

3. The rate of charge in force as of the end of a financial year, as adjusted under Section V, shall continue to apply subsequently unless it is otherwise decided.

Section IV. Rate of Remuneration

1. Effective August 1, 1986, Rule I-10(d) shall cease to apply.

2. Effective February 1, 1987, Rule I-10 shall read as follows:

> I-10. (a) The rate of remuneration shall be equal to 100 percent of the rate of interest on holdings of SDRs under Rule T-1 (hereafter referred to as "SDR interest rate").
>
> (b) The relationship of the rate of remuneration to the SDR interest rate will be referred to as the "remuneration coefficient."

3. During financial year 1987 and financial year 1988, the rate of remuneration shall be adjusted in accordance with the provisions of Section V.

Section V. "Burden Sharing" in FY 1987 and 1988

1. In financial year 1987 and financial year 1988, and notwithstanding Rule I-6(4)(a) and (b) and Rule I-10, the rate of charge referred to in Rule I-6(4), and the rate of remuneration prescribed in Rule I-10 shall be adjusted in accordance with the provisions of this Section.

2. (a) In order to generate the additional net income referred to in Section II.1, and the supplemental income referred to in Section II.2, the rate of charge shall be adjusted in accordance with the provisions of Section III.1(a), and the rate of remuneration shall be adjusted, subject to the limitation in (c), in accordance with the provisions of this paragraph, so as to produce equal amounts of income.

(b) If income from charges becomes deferred during an adjustment period as defined in (d), the rate of charge and the rate of remuneration shall be further adjusted, subject to the limitation in (c), in accordance with the provisions of this paragraph, so as to generate, in equal amounts, an additional amount of income equal to the amount of deferred charges. For the purposes of this provision, special charges on overdue financial obligations under Decision No. 8165-(85/189)G/TR, December 30, 1985 shall not be taken into consideration.

(c) No reduction in the rate of remuneration under this paragraph shall be carried to the point where the average remuneration coefficient would be reduced below 85 percent for an adjustment period.

(d) Subject to the provisions of Section III.1(a), the adjustments under this paragraph shall be made as of May 1 and as of November 1 of each year:

> shortly after October 31 for the period from May 1 to October 31;
> shortly after April 30 for the period from November 1 to April 30.

(e) Notwithstanding the provisions of (d), any adjustment made in respect of the first half of financial year 1987 shall affect the rate of remuneration only as of August 1, 1986.

(f) The operation of this decision shall be reviewed when the remuneration coefficient is reduced to 85 percent under (c).

3. A midyear review of the Fund's income position shall be held shortly after October 31 of each year. If, after any adjustment under paragraph 2, the actual net income for the first six months of the financial year, on an annual basis, is below the target amount for the year by an amount equal to, or greater than, two percent of the Fund's reserves at the beginning of the financial year, the Executive Board will consider how to deal with the situation. If on December 15 no agreement has been reached as a result of this consideration, the rate of charge shall be increased as of November 1 to the level necessary to reach the target amount of net income for the year.

4. (a) An amount equal to the proceeds of any adjustment made under paragraph 2(a) in order to generate supplemental income in financial year 1988 shall be distributed, in accordance with the provisions of this paragraph, to members that have paid additional charges or have received reduced remuneration as a result of the adjustment, when there are no outstanding overdue charges and repurchases, or at such earlier time as the Fund may decide.

(b) An amount equal to the proceeds of any adjustment made under paragraph 2(b) in financial year 1987 or 1988 shall be distributed, in accordance with the provisions of this paragraph, to members that have paid additional charges or have received reduced remuneration as a result of the adjustment, when, and to the extent that, charges, the deferral of which had given rise to the same adjustment, are paid to the Fund. Distributions under this provision shall be made semi-annually.

(c) Distributions under (a) or (b) shall be made in proportion to the amounts that have been paid or have not been received by each member as a result of the respective adjustments.

(d) If a member that is entitled to a payment under this paragraph has any overdue obligation to the Fund in the General Department at the time of payment, the member's claim under this paragraph shall be set off against the Fund's claim in accordance with Decision No. 8271-(86/74), April 30, 1986 or any subsequent decision of the Fund.

Current Principles for Allocation of Currencies Under the Operational Budgets

Decisions by the Fund on transfers and receipts of currencies under the operational budgets are made pursuant to Article V, Sections 3(d) and 7(i), which provide that account is to be taken, in consultation with members, of the balance of payments and reserve tranche positions of members and developments in the exchange markets, as well as the desirability of promoting over time balanced positions in the Fund. The Fund decided in September 1979 the manner in which the desirability of promoting over time balanced positions in the Fund ("harmonization") will be taken into account. 1/ The principal elements are as follows.

First, a member's "position in the Fund" is defined as its reserve tranche position plus any outstanding loans that are judged by the Fund to provide it, on a continuing basis, with the ability to finance members' purchases on terms comparable to use of ordinary resources.

Second, currencies are to be selected for use in transfers and receipts in such a way as to promote, over time, the equalization of the ratios of members' positions in the Fund to their gold and foreign exchange holdings.

Third, the Fund is not to make use of a member's currency substantially below the average level, expressed as a percentage of quota, at which the Fund holds the currencies of members included in the budgets for transfers of currencies; and the Fund is to seek to maintain adequate working balances of a currency.

Fourth, the decision provides for ad hoc proposals for the use of the U.S. dollar.

Finally, these guidelines are to be applied in a flexible manner, to assure that the use of currencies can be adapted to the needs and circumstances of members and the Fund and that the Fund's transactions and operations can be executed expeditiously and in a manner that pays due regard to the convenience of members.

The provision for ad hoc proposals for use of the dollar recognizes that the reserves of the United States do not provide an adequate measure of the U.S. ability to finance a reserve tranche position in the Fund. It is, in part, for this reason that the decision provides flexibility for use of currencies in light of the needs and circumstances of members of the Fund, and that it also specifies that a relevant consideration in this regard is "the fact that in respect of the issuer of

1/ See Executive Board Decision No. 6274-(79/158), adopted September 14, 1979.

a reserve currency the ratio of its Fund position to its gold and foreign exchange holdings may not provide an appropriate measure of the amounts of the currency that might be used by the Fund".

These principles have been implemented in decisions on the selection of currencies for use in the operational budgets, the latest of which has been in effect since mid-1981. 1/ Under this decision, amounts on the transfers side of the budget, other than the U.S. dollar, are distributed among the members concerned in proportion to their gold and foreign exchange holdings, subject to limitations (presently 10 percent of quota) to take account of relatively low holdings of a members' currency. If the U.S. position is judged to be sufficiently strong to be included for transfers, ad hoc proposals are made on the occasion of each budget for the use of U.S. dollars. These proposals may take account of a number of factors, including (i) the level of the Fund's holdings of dollars and the relationship of these holdings to total holdings of usable currencies, (ii) the relative strength of the U.S. dollar in the exchange markets, and (iii) the overall net use of U.S. dollars being proposed over time under the budgets in relation to overall demand.

Amounts of currencies on the receipts side of the budgets are normally distributed among the members included for receipts in proportion to the members' reserve tranche positions and any lendings that are outstanding under the GAB.

Under the decision, modifications of the method of calculating amounts for transfers and receipts are to be proposed if circumstances so warrant. A temporary modification of allocation of amounts on the receipts side of the budget was agreed in early 1986 in an effort to achieve a more rapid harmonization of members' positions in the Fund and take greater account of the growing dispersion of the Fund's holdings of currencies relative to quotas. In general, except under this modification, allocations for receipts of U.S. dollars have also been calculated in proportion to the U.S. reserve tranche position on the same basis applied to other members.

1/ See Executive Board Decision No. 6772-(81/35)G/S, adopted March 5, 1981.