FOR AGENDA

EBS/87/165

CONFIDENTIAL

July 28, 1987

To: Members of the Executive Board

From: The Secretary

Subject: Review of the Compensatory Financing Facility

The attached review paper on the compensatory financing facility is scheduled for discussion on Monday, August 24, 1987.

Mr. Kaibni (ext. 7721) is available to answer technical or factual questions relating to this paper prior to the Board discussion.

Att: (1)

CONFIDENTIAL

INTERNATIONAL MONETARY FUND

Review of the Compensatory Financing Facility

Prepared by the Research Department

(In consultation with other Departments)

Approved by Jacob A. Frenkel

July 27, 1987

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I. Introduction

At the Executive Board meeting on March 3, 1987, 1/ Executive Directors considered a number of issues that had arisen from recent experience with the use of the compensatory financing facility (CFF). As background to this discussion the staff had prepared a broad issues paper in response to requests by several Executive Directors for a comprehensive review of the CFF to be conducted in 1987. 2/ The consensus at the Board meeting was that the CFF was an important and useful facility, that compensation for export shortfalls should remain an essential activity of the Fund, and that the basic features of the facility should remain unchanged.

Some Directors were, however, concerned that, as export shortfalls have become only one aspect of external payments difficulties, use of the CFF should be accompanied by policies that would provide better safeguards than at present for the revolving character of Fund resources. While they welcomed the increasing link between upper CF tranche purchases and stand-by arrangements, they considered that the front-loaded nature of CF purchases might weaken the incentive to adjust and in some cases it might therefore be appropriate to phase CF purchases. They were also of the view that access to the CFF should include an assessment of a member's debt servicing ability. Other Directors were of the view that the question of the revolving character of the Fund's resources in relation to use of the CFF had been given too much emphasis, often to the detriment of a timely compensation of export shortfalls. They regretted the infrequency of use of the lower CF tranche and the practice of linking CF purchases in the upper tranche with stand-by arrangements, which was not a necessary condition of the 1983 guidelines on cooperation. In addition to these broad policy concerns associated with the recent application of CF conditionality, Directors also examined other aspects of the facility, including the formula for calculating shortfalls and the issue of overcompensation.

The present paper is intended to examine these and other concerns expressed by Directors at the March 3 Board meeting, as well as to provide some suggestions for modifying the facility in response to these concerns. The paper is organized as follows: In Part II, the major concerns of Directors as they relate to the application of CF conditionality are examined in more detail, and modifications of the guidelines are proposed. In Part III those operational aspects of the facility that were questioned by Executive Directors are examined. This examination covers: (1) the formula for calculating shortfalls with particular reference to the problems associated with the direction of the trend in export earnings; (2) the issue of overcompensation; (3) the implications of deleting the 3-year rule governing purchases under the cereal decision and the possibility of introducing a separate cereal facility; and (4) the issue of responsibility for the shortfall and the treatment of the import content of exports.

1/ EBM/87/36-37.
2/ "Compensatory Financing Facility--Recent Experience and Issues for Consideration" (EBS/87/13, 1/26/87).

Part IV of the paper examines two suggested innovations. The first deals with a proposal to provide to low-income developing countries CF assistance on concessional terms with regard to the rate of charge and to the repayment period. The second relates to the implications of possible contingent use of the CFF in supporting adjustment programs under stand-by arrangements.

A summary and review of suggestions for modifications are contained in Part V.

Seven annexes, which analyze in more detail some of the issues covered in the text, are provided in Supplement 1 to this paper.

II. Conditionality and Related Issues

1. Major concerns of Executive Directors

In the first phase of the review of the CFF conducted in March this year there was a clear agreement that the main characteristics of the facility should be preserved so that it could be used in a timely and appropriate way by all members facing balance of payments problems due to reversible export shortfalls. By making resources temporarily available to members whose export receipts fell short of a medium-trend value, the CFF would enhance the stability of export receipts and thus of the capacity to import goods and services.

Some Directors were, however, concerned that the current guidelines on cooperation did not afford adequate safeguards for the temporary use of the Fund's general resources in circumstances where there was doubt about the medium-term viability of the balance of payments, particularly where a member's external indebtedness, including to the Fund, was large and its debt servicing capacity already strained. These Directors viewed the recent strengthening of the link between CF purchases and stand-by arrangements in the higher credit tranches as appropriate. Some were concerned that, even when accompanied by stand-by arrangements, disbursement of the full amount of the CF purchase on approval by the Executive Board might strain the debt servicing capacity of members and leave the Fund heavily exposed should the members' adjustment efforts falter. Indeed, the recent growth in overdue obligations to the Fund on account of CF purchases provided some evidence in support of this concern.

In this connection, it was also noted that the CFF does not carry with it the same protection for Fund resources as use of Fund credit under a stand-by arrangement, where disbursements are phased in accordance with performance criteria. Some Directors were of the view that phased access would be appropriate in some circumstances and could reinforce the member's incentive to adjust; it would also provide greater protection for Fund resources if the adjustment effort were unsuccessful. They suggested that CF purchases might be phased in certain situations--when outstanding use of Fund credit had reached a high level, say 200 percent of quota, or when CF purchases were large in relation to resources available under accompanying stand-by arrangements.

Other Directors raised the question of the stabilizing role of the CFF and how this might be affected by the introduction of phasing. 1/ They directed attention to the need for timely compensation of export shortfalls. They noted that recently there had been few drawings in the lower CF tranche and that use of the upper CF tranche without an accompanying stand-by arrangement had virtually ceased. They regretted the apparent practice of linking upper tranche CF purchases with stand-by arrangements, noting that the 1983 guidelines on cooperation explicitly stated that existence of an arrangement was not a necessary condition for use of the CFF in the upper tranche. They also considered that access limits were inadequate in relation to the size of shortfalls and that phasing CF resources would run counter to the quick-disbursing nature of the facility. 2/ They were also in favor of considering approval of stand-by arrangements in principle as meeting the test of cooperation for an upper CF tranche purchase. As the guidelines on cooperation do not necessarily require the existence of a stand-by arrangement as proof of cooperation, some Directors suggested that receipt of the letter of intent was sufficient to meet the test of cooperation. A suggestion was also made to reduce the lower CF tranche and relax the conditions for its use while formalizing a link between the enlarged upper CF tranche and stand-by or extended arrangements.

To a large extent the concerns of both groups of Directors reflected the changes in the external economic environment faced by members using the facility in the 1980s compared with the 1960s and 1970s. In this earlier period, persistent sources of balance of payments difficulties were less frequent, and the required adjustment response less severe. The intensification of external payments imbalances for many primary producing countries since the beginning of the 1980s, which reflected both the growth in external indebtedness and the persistent weakness of primary product prices, has meant that effective adjustment has been unavoidable. In these circumstances, use of the CFF has become increasingly accompanied by measures that would provide reasonable assurance of balance of payments viability over the medium term. While use of the CFF has always carried with it the obligation that the member undertake to cooperate with the Fund to find, where required, appropriate solutions to its balance of payments problems, the 1983 guidelines on cooperation were designed to differentiate between payments imbalances attributable solely to temporary shortfalls and thus not requiring any policy changes, and imbalances attributable to longer-term causes and consequently requiring policy adjustment.

1/ Analysis of the impact that use of the CFF has had on reducing the variability of export receipts is presented in Annex II.

2/ Developments with respect to access limits and use of the CFF are discussed in Annex I. Also relevant is the paper "Review of Access Limits for Special Facilities for 1988" (to be issued shortly), which is scheduled for Board consideration in early September.

In practice, however, this distinction is often a difficult one to make, and as a result the guidelines have tended to be interpreted rather cautiously. As indicated in Table 1, the number of purchases confined to the lower CF tranche has fallen sharply since the issuance of the guidelines, and there has been only one upper CF tranche purchase that has not been accompanied by a stand-by arrangement. The decline in the frequency of lower CF tranche purchases reflects the practice of delaying CF requests until approval of a stand-by arrangement, at which time maximum access is assured under the guidelines, and the close association between upper CF tranche purchases and stand-by arrangements has reflected concerns about medium-term payments viability. One consequence of the infrequent use of the lower tranche has been that CF purchases in the upper tranche have often been large in relation to resources available under accompanying stand-by arrangements, which has prompted the concern that adjustment discipline might be weakened. Of the 16 CF purchases that took place between the adoption of the 1983 guidelines and 1986, and that occurred either on approval or within three months of approval of a stand-by arrangement, 4 exceeded the stand-by amount and 11 were larger than 50 percent of the stand-by amount.

It should be noted, however, that the availability of maximum access under the CFF has sometimes influenced the amount of access considered appropriate under the accompanying stand-by arrangement to ensure that the total access to the Fund's resources was consistent with the member's capacity to service a large increment in its outstanding debt. It may also be the case that in some circumstances, the availability of substantial financing from the CFF at an early stage may have reinforced the incentive to adjust; in particular, it may have encouraged the implementation of prior actions.

The problem of medium-term payments viability in relation to the use of the CFF, which the 1983 guidelines were also designed to address, is evident in the growth of overdue obligations to the Fund on account of CF purchases. Overdue repurchase obligations to the Fund on account of CF purchases rose from SDR 15 million at end 1983 to SDR 370 million at the end of June 1987 (Table 2). 1/ Overdue repurchase obligations on account of stand-by and extended arrangements began to emerge in 1983, when they amounted to SDR 4 million and they have increased sharply to SDR 529 million by end-June 1987. Thus, overdue obligations in respect to CF purchases are equal to 70 percent of overdue obligations on account of stand-by and extended arrangements; this compares with the ratio of outstanding purchases under the CFF to outstanding purchases under the credit tranches of 33 percent at the end of June 1987. Of the 52 CF purchases within the period 1981-86 that resulted in overdue repurchase obligations, 31 were accompanied by a stand-by or extended arrangement.

1/ The bulk of CF arrears in the early part of the period was attributable to Democratic Kampuchea, and these arrears have remained unchanged at SDR 12.5 million throughout the period.

Table 1. Drawings Under the Compensatory Financing Facility in Upper and Lower CF Tranches, 1979-87

	Number of CF Drawings	Existing Stand-by 1/ or Extended Arrangement	Stand-by 1/ or Extended Arrangement Concurrently Approved by the Board	Total Stand-by or Extended Arrangements
		(Upper CF tranche)		
1979	12	4	2	6
1980	13	5	5	10
1981	18	7	9	16
1982	10	3	7	10
1983	16	4	12	16
1984	8	6	2	8
1985	10	2	7	9
1986	5	1	4	5
1987 3/	3	1	2	3
Total	95	33	50	83
		(Lower CF tranche)		
1979	11	--	2	2
1980	2	--	--	--
1981	11	1	--	1
1982	18	6 2/	2	8 2/
1983	8	--	1	1
1984	--	--	--	--
1985	3	--	--	--
1986	3	--	1	1
1987 3/	3	--	1	1
Total	59	7	7	14

1/ Including drawings in the first credit tranche and trust fund loans.
2/ Includes three arrangements that were inoperative at the time of the CF drawing.
3/ January-July.

Table 2. Overdue Obligations to the Fund by Type, 1981-87

	1981	1982	1983	1984	1985	1986	1987 Q1	1987 Q2 1/
	(In millions of SDRs; end of period)							
Total 2/	15.8	10.6	41.6	159.5	602.5	1,017.7	1,171.5	1,321.4
Of which:								
Compensatory financing facility 2/	2.7	2.7	14.6	41.8	137.7	266.6	315.6	369.5
(Number of countries)	(1)	(1)	(7)	(9)	(13)	(6)	(7)	(7)
Credit tranches 3/	--	--	4.2	37.0	231.7	413.2	460.5	529.4
	(In percent)							
CFF/Total	17.0	25.0	35.1	26.2	22.8	26.2	26.9	28.0
CFF/Credit tranches	(--)	(--)	344.5	113.0	59.4	64.5	68.5	69.8

1/ Preliminary.
2/ Excludes Democratic Kampuchea. Overdue obligations under the CFF and the gold tranche from Democratic Kampuchea have remained constant at SDR 12.5 million and SDR 6.2 million, respectively, throughout the period.
3/ Stand-by and extended arrangements.

Between the end of 1981 and the second quarter of 1987, 26 members had overdue obligations to the Fund at some time during the period on account of purchases in the credit tranches and under the CFF. Of these, only 6 had overdue obligations which did not relate to the CFF. Seven of the 8 members with overdue obligations at the end of the second quarter of 1987 had overdue obligations in respect of the CFF. As of that date, however, the bulk of overdue obligations in relation to both the CFF and stand-by/extended arrangements is attributable to three countries only.

The following section attempts to address the major concerns of Executive Directors as outlined above--notably the scant use of the lower tranche, the frequency of large CF purchases at the outset of stand-by arrangements, and related problems of overdue obligations--by setting forth for consideration some possible modifications of the guidelines governing use of the CFF.

2. Suggested modification

Any attempt to modify the facility must recognize the inherent distinction between CF requests that are associated with payments difficulties limited only to temporary shortfalls and those where temporary shortfall conditions are superimposed on longer-term payments problems. It is important to stress at the outset that no changes in the guidelines are envisaged for the use of the facility in the situation of payments difficulties limited to export shortfalls. In the language of the 1983 guidelines, countries in this situation would be judged to have "a satisfactory balance of payments position, apart from the effects of the shortfall . . ." 1/ Retaining this provision would be consistent with the original objectives of the facility and would underscore the statement in the guidelines on cooperation that a stand-by arrangement was not a prerequisite for use of the CFF. Accordingly, where a members's external difficulties were exclusively shortfall-related and did not require policy changes, maximum access to the CFF would continue to be assured. Similarly, when a member with more prolonged payments problems undertakes an adjustment program that could qualify it for Fund credit, CF access would be available even in the absence of a stand-by or extended arrangement.

As regards CF requests for compensation of temporary shortfalls that are superimposed on longer-term payments difficulties, the problems that have arisen in the implementation of the CF guidelines suggest that any reform should address three main issues:

1/ The requirement of cooperation is set out in EBS/83/171, 8/12/83 and Supplements 1 and 2, 9/12/83 and 9/19/83, and in Decision No. 7528-(83/140), September 14, 1983 in Selected Decisions of the International Monetary Fund and Selected Documents, 12th Issue (Washington, D.C.), April 30, 1986, pp. 87-88.

(1) In the present global economic environment, including the heavy debt obligations now faced by many developing countries, the question arises as to whether the operations of the CFF can be adapted to provide a better safeguard for the revolving character of the Fund's resources. CF purchases are frequently large in relation to the resources available under stand-by arrangements, and, unlike purchases in the upper credit tranches, are fully disbursed on Board approval. The incidence of overdue obligations has risen since the early 1980s but has declined recently in terms of the number of countries affected.

(2) The implementation of the cooperation requirement has resulted in a loss of operational flexibility. This situation, which results from the practice of linking CF purchases to approval of stand-by arrangements, manifests itself in two ways: (a) delays in processing CF requests until stand-by negotiations are completed have undermined the quick-disbursing character of the facility thereby interfering with the synchronization between CF assistance and shortfalls; and (b) with the conditions separating purchases in the lower and upper CF tranches becoming increasingly blurred, use of the lower tranche alone has diminished significantly. The result has been that when a member qualifies for a CF purchase at the time of an accompanying stand-by arrangement, the maximum CF access (up to 83 percent of quota) may be available at the outset of the program. This situation has therefore contributed to the relatively large size of CF purchases noted above. Thus, a second issue is whether the CFF can be modified so as to restore the timeliness of CF assistance and avoid lumpiness of disbursements.

(3) Another issue, which overlaps in some respects with those in (1) and (2), is the extent to which the CFF can play a role in supporting stand-by arrangements that may be threatened by the unexpected development of an export shortfall. 1/ Under present decisions, the CFF can be used during a program, to the extent that CF access is available and all the criteria for use of the CFF are met; but, as noted above, under the present guidelines the member is entitled to obtain maximum CF access on approval of the stand-by arrangement, thereby leaving no flexibility for further access in the course of the arrangement. Reserving a portion of CF access for later use during the period of an arrangement could provide a buffer against the effects of unanticipated shortfalls and at the same time avoid some of the problems noted above, such as the lumpiness of CF purchases and the need to safeguard the revolving character of the Fund's resources.

The main elements of the scheme set forth in this section may be summarized as follows:

(1) Reduce the lower tranche--from 50 percent of quota in outstanding purchases to, say, 33 percent--and make it more accessible;

1/ Part IV contains a discussion of an approach involving the use of CF access for contingencies resulting from a deviation of exports from program projections due to factors outside the control of the member.

(2) reduce access availability on approval of a stand-by arrangement--from 83 percent of quota to, say, 50 percent;

(3) reserve a certain level of CF access, say, 33 percent of quota, for disbursement during the course of a stand-by arrangement, subject to the arrangement remaining current; and

(4) in conformity with the objectives of the compensatory financing facility, assess CF purchases in relation to export shortfalls calculated at the time of each purchase, but with the option of allowing the final purchase to be based on the shortfall established at the beginning of an arrangement.

The following paragraphs set out these elements in greater detail.

(1) With respect to the pattern of phasing, three tranches are envisaged instead of the present two. The tranches would ordinarily be used successively, although unused amounts of an earlier tranche could serve to enlarge the CF purchase at a later tranche up to the cumulative limit set for that tranche. The cumulative tranche limits could, for instance, be 33 percent, 50 percent, and 83 percent of quota, although a number of different patterns could be envisaged. For example, if it were considered appropriate to provide greater access at the outset of a program, the tranching pattern could be 25/58/83 percent. Outstanding CF purchases from earlier use of the facility would clearly reduce the amount available under these cumulative limits.

(2) As regards conditionality, the principle of cooperation would continue to provide the criterion for eligibility to use different tranches of the facility. In general the present guidelines governing use of the lower tranche would continue to apply, but it is envisaged that greater flexibility in the implementation of those guidelines would provide for wider use of the lower tranche. For example, it would be expected that a purchase in the first CF tranche would take place in the early stages of discussion on a program to be supported by a stand-by arrangement, without awaiting formal approval of the arrangement. It would also be anticipated that greater use would be made of this tranche by countries experiencing shortfalls and demonstrating a willingness to cooperate with the Fund in seeking solutions to their balance of payments problems.

For the second tranche (up to [50] percent of quota), the cooperation requirement would be met by approval of a stand-by arrangement or the existence of policies that could qualify the member to make a purchase in the credit tranches, even though a stand-by arrangement was not contemplated by the member. Beyond these two situations, the issue arises as to whether the cooperation requirement could be considered to have been met in the following situations:

(a) approval in principle of a stand-by or extended arrangement;

(b) approval of an arrangement under the structural adjustment facility; or

(c) approval of a lower tranche stand-by arrangement. 1/

These situations represent an advanced stage of policy formulation, and the question is whether or not the efforts by the member concerned should be recognized in terms of additional access beyond the first CF tranche. It might be noted that these issues already arise in the application of the present guidelines. It is also relevant to point out that access on definitive approval of a stand-by arrangement would, in any case, be smaller under the suggested scheme [50] percent of quota than at present (83 percent). In these situations, one approach would be to provide for some flexibility by determining access on a case-by-case basis, taking into account the financing needs of the member and the strength of the adjustment effort in restoring medium-term viability.

As regards the final tranche, it is envisaged that disbursement would be contingent on compliance with the terms of the stand-by or extended arrangement. It would therefore seem reasonable that the purchase should take place only after compliance had been confirmed in the context of a review of performance under the arrangement; if a review is not a criterion under the arrangement, a special review could be conducted for this purpose. Similarly, a review would also be called for in the case of a member whose policies are judged to qualify it for a Fund arrangement, but where it did not request an arrangement.

The question that arises here is whether the implementation of programs under stand-by arrangements in the lower tranche or a structural adjustment facility may be considered to meet the cooperation requirement for the final tranche of the CFF. In these circumstances, release of the final tranche could be subject to a special review to assess performance under the arrangement and the compatibility of existing policies with the objective of medium-term viability of the balance of payments.

(3) Use of the CFF in stages as discussed above would be assessed in relation to the shortfall conditions existing at each stage. In other words, the shortfall would be calculated, as at present, by reference to the latest information on actual exports and on export projections available at the time of each purchase. 2/ A relevant consideration in this connection is the length of the period during which a shortfall remains in existence and the correspondence between the typical shortfall cycle and the stages of the adjustment program at which the CF purchases are envisaged--i.e., at an early stage of discussion prior to a stand-by arrangement, on approval of the arrangement, and during the arrangement.

1/ The language of the 1983 guidelines refers to credit tranches without a distinction between the first credit tranche and the upper tranches.

2/ It is the case, however, that the proximity of purchases envisaged under the proposed scheme would result in shortfall periods that overlap more frequently with other shortfall periods than at present. Existing procedures provide safeguards against overcompensation, and it would be the intention to apply similar procedures to avoid overcompensation in purchases under the suggested scheme.

In other words, shortfalls are calculated by reference to specific time periods, while CF disbursements are timed to correspond to specific stages of adjustment; the questions that arise are whether there is an inherent conflict between the two, and what the operational consequences are.

Shortfalls typically last for a considerable number of months and rarely, if ever, appear in one month and disappear the next. Shortfall calculations for a sample of 50 countries over successive 12-month periods indicate that about half of the shortfalls lasted up to 12 months, and the rest from 12 to 24 months. These shortfall cycles provide a frame of reference for operations under the scheme. A hypothetical shortfall profile for successive 12-month periods beginning January 1986 and ending December 1988 is illustrated in Chart 1. An excess lasting through December 1986 is followed by a shortfall cycle spanning 18 months from January 1987 till June 1988. The shortfall reaches a maximum of 200 percent of quota in September 1987 and disappears in June 1988; this is followed by a period of excesses. Four scenarios of CF purchases in relation to the shortfall cycle are illustrated; the scenarios relate to a country that initially has no outstanding purchases under the CFF.

(a) In Scenario I, discussions between the member and the Fund begin in March 1986, and in September a one-year stand-by arrangement enters into effect; no CF purchase could be justified at either stage because the member was experiencing an export excess at this time. 1/ Some time after the shortfall begins to emerge in January 1987 (but before the stand-by review) the member could make a CF purchase (say, in February) up to 50 percent of quota--i.e., the same amount it could have obtained on approval of the arrangement had a shortfall existed at that time. Release of the remaining 33 percent of quota would be conditional on confirmation that the member is pursuing adjustment as stipulated in the arrangement; this could be done either by a special review or in the context of the program review.

(b) In Scenario II, discussions for a program begin in March 1987 after the shortfall cycle has started; the member could purchase 33 percent of quota in March. Subsequently, when the arrangement is approved in September 1987, the member could make a further purchase of 17 percent. At a later date--as in (a) above, after an appropriate review--the member could purchase the remaining 33 percent of quota.

(c) In Scenario III, discussions in September 1987 qualify the member to purchase 33 percent of quota; a further purchase of 17 percent of quota can be made on approval of the arrangement in March 1988. As the member is moving out of the shortfall cycle, no further purchases are possible during the arrangement.

1/ For the sake of simplicity, this discussion assumes no lag between the end of the shortfall year and the time of purchase; also the possibility of estimating exports for up to six months of the shortfall year is ignored.

(d) With Scenario IV, the member is able to make only one purchase of 33 percent of quota at the discussion stage in March 1988; no further purchases are possible because the shortfall would have disappeared by the time the arrangement is approved in June.

The above examples illustrate that to the extent that there is a correspondence between program phases and the shortfall cycle, CF resources would be spread out over a longer period of the adjustment than under the present procedures. The shortfall may, however, disappear at an early stage of the adjustment process (after the discussion stage but before the planned review) and the country would receive only restricted compensation for the shortfall experienced. The availability of the first tranche before the approval of an arrangement represents a relaxation of present conditionality practice, where the first CF purchase would be likely to be deferred until the approval stage. The suggested reduction of access at the approval stage from 83 percent to [50] percent of quota does, however, represent a tightening of conditionality, compared with present practice. If there was no shortfall at the beginning of the adjustment process (at the discussion stage), but one emerged during later stages, the CFF would, of course, be provided up to the prescribed limits at each stage. It is only at the stand-by approval stage that a member purchasing [50] percent of quota in relation to a larger shortfall would not be able to purchase the final tranche if the shortfall had disappeared by the time of the review.

To overcome this limitation, it would be possible to provide, at the option of the member, for the final purchase to be based on the shortfall prevailing at the beginning of the adjustment program, revised only in light of any changes in export projections. 1/ While this would widen the separation between shortfalls and compensation, it would have the advantage of allowing full access to the CFF if the member's record of adjustment was sound. Of course, a purchase would be permitted only to the extent that the previous purchase did not fully compensate for the shortfall.

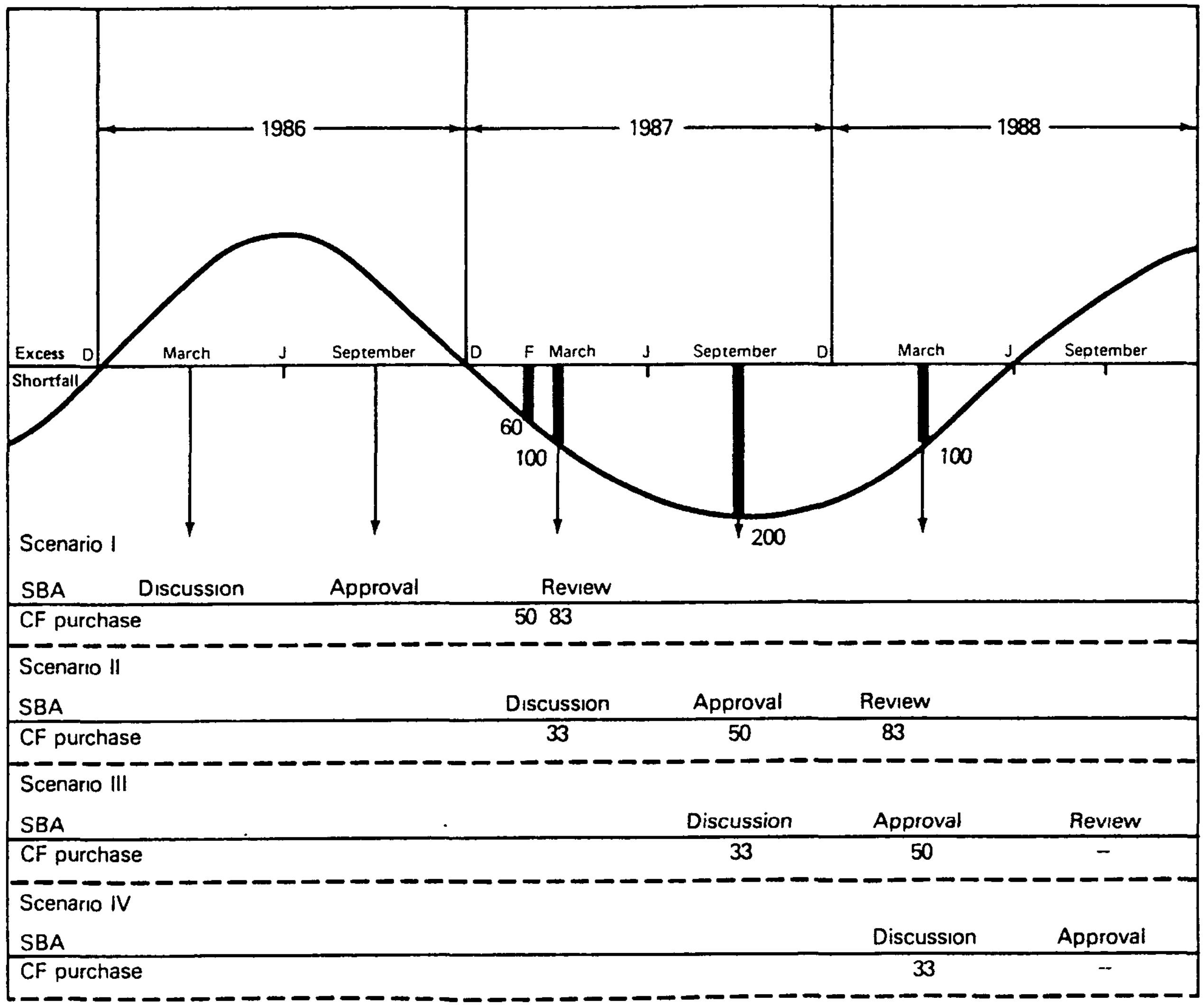
Whether use of the CFF under these modifications would be larger or smaller than at present depends on a number of considerations:

(1) From the point of view of an individual member, the proposal implies easier access to the reduced lower tranche, but beyond the lower tranche conditionality would be more stringent. This is because access on approval of an arrangement would be reduced from 83 percent of quota at present to [50] percent of quota, and access beyond the [50] percent level would be contingent on meeting a further test, namely compliance with the terms of the accompanying stand-by arrangement. Whether the proposed scheme would reduce access of a member with a stand-by arrangement depends

1/ Any revisions to actual data for the three years through the shortfall year, together with the revised projections available at the time of the review, would form the basis for recalculating the shortfall; this procedure would also apply to finalizing shortfalls associated with early drawings, i.e., where data for up to six months of the shortfall year may be based on estimates.

CHART 1

HYPOTHETICAL PHASING OF CF PURCHASES IN RELATION TO SHORTFALL CYCLE AND PERIOD OF STAND-BY ARRANGEMENT[1]



[1] Figures are in percent of quota

ultimately on the member's performance under that arrangement. If a member did not enter into a stand-by arrangement, presumably it would have obtained the first tranche ([33] percent of quota) on easier conditions than at present. 1/ To the extent that the guidelines for use of the first tranche result in an increase in the number of purchases in this tranche that are not followed by adjustment programs, there would be a greater risk of Fund exposure, as medium-term viability may not be assured.

(2) Whether aggregate purchases would be larger under the proposed scheme than at present depends on whether the expected increase in the number of purchases in the first two tranches outweighs the smaller access available in each of these two tranches.

In respect of the cereal decision, the question arises as to whether the tranching of CF purchases proposed above would apply also to purchases resulting from cereal excesses. While both the cereal option and the CFF are designed to provide balance of payments support, the cereal decision also serves to provide urgently needed assistance to food deficit countries. Consideration might therefore be given to a different phasing of purchases. However, the precise details of how purchases under the cereal decision may need to be phased will depend on the outcome of the Executive Board's discussion of the phasing suggested in this section and of the possible modifications of the cereal decision itself, which are discussed in Part III.3 of this paper.

The proposed scheme is designed to provide a framework within which the country and the Fund can work toward the solution of both the temporary problem associated with a reversible shortfall and the longer-term problem stemming from prolonged balance of payments difficulties. While maximum CF access is provided instantly when payments difficulties are limited to temporary shortfalls, the modified tranche conditionality proposed above for situations of more entrenched payments difficulties would link the use of resources under the CFF to the adjustment process.

III. Issues in the Implementation of the CFF

This part of the paper examines certain specific aspects of the compensatory financing facility that Executive Directors considered to be in need of reform or modification and provides recommendations for possible amendments. It covers: (1) the current formula for calculating shortfalls; (2) overcompensation in successive purchases; (3) the cereal decision; and (4) other matters, namely, the application of the "beyond the control" requirement and the question as to whether any adjustment should be made in calculating shortfalls for the import content of exports. Several of these and other issues are dealt with more extensively in the annexes contained in Supplement 1 to this paper.

1/ Of course, as emphasized above, a member with no balance of payments difficulties other than those relating to the export shortfall would qualify for the maximum purchase subject only to the size of the shortfall.

1. Formula for calculating shortfalls

a. The current formula

Since the inception of the facility in 1963, the definition of the export shortfall--as a downward deviation of exports in a given year from a 5-year average of exports centered on that year--has remained unaltered. 1/ Under this definition, shortfalls could exist in the presence of rising, declining, or constant export trends. This definition involves the forecasting of exports for two years beyond the shortfall year. In the early years of the facility, export projections for the two post-shortfall years were based on an automatic formula 2/ in combination with a judgmental approach involving an appraisal of export prospects, with equal emphasis attached to the two approaches; an upper limit and a lower limit on export projections were also applied. 3/ Use of an automatic formula with projection limits was abolished at the time of the liberalization of the facility in 1975, and since then forecasting has been based on a judgmental approach without limits.

Until 1979 an arithmetic average was used to calculate the trend in exports. Since exports tend to grow at an exponential rate, an arithmetic average exaggerates the size of shortfalls; for example, when exports grow at a constant rate the arithmetic average always produces a shortfall, whereas no shortfall would be indicated relative to the geometric average. The replacement of the arithmetic average by a geometric average has had the effect of achieving a better balance between shortfalls and excesses over time. It has limited the size of shortfalls, particularly those associated with rapidly rising exports. Had the arithmetic average been applied, the average size of shortfalls calculated under the 1979 Decision--i.e., since August 1979--would have been 44 percent higher.

Under the present formula, a shortfall can exist only if the growth of exports from the average of the two preshortfall years to the shortfall year (g^-) is lower than growth of exports from the shortfall year to the average of the two post-shortfall years (g^+). 4/ The numerical examples

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1/ The theoretical and practical reasons for the selection of a trend over 5 years centered in the shortfall year are examined in detail in M. Fleming, R. Rhomberg and L. Boissonneault, "Export Norms and Their Role in Compensatory Financing," Staff Papers, International Monetary Fund (Washington, D.C.), Vol. 10 (March 1963), pp. 97-149.

2/ Under the formula, the 5-year trend of exports was estimated as a weighted average of exports in the shortfall year (with a weight of 0.5) and exports in the two preshortfall years (with a weight of 0.25 for each). The formula, thus, provided an implicit value of projected exports for the two post-shortfall years.

3/ The limits on average exports for the two post-shortfall years with reference to the average for the two preshortfall years were: an upper limit of 110 percent and a lower limit of 95 percent.

4/ A formal statement and further elaboration of this relationship can be found in Annex III.

in Table 3 illustrate the conditions under which the relative changes in growth rates during these two periods affect the shortfall. Whether the trend is rising or falling, the shortfall is zero if exports grow at a constant rate (rows 1.1 and 2.1); a shortfall occurs whether the trend is rising (1.2) or falling (2.2) so long as growth from the preshortfall period to the shortfall year (g^-) is smaller than projected growth (g^+).

Table 3. Illustrative Example of Growth Patterns Associated with Export Shortfalls

	Export Earnings			
	Preshortfall average (X^-)	Shortfall year (X)	Post-shortfall average (X^+)	Shortfall
1. Rising trend				
1.1 Constant rate				
$g^- = g^+ = 0.2$	83.3	100	120	--
1.2 Increasing rate				
$g^- = 0.2;\ g^+ = 0.3$	83.3	100	130	3.3
2. Declining trend				
2.1 Constant rate				
$g^- = g^+ = -0.2$	125	100	80	--
2.2 Increasing rate				
$g^- = -0.2;\ g^+ = -0.1$	125	100	90	4.8

Note: $g^- = X/X^- - 1;\ g^+ = X^+/X - 1.$

The mere fact that exports decline in a sequence of years does not necessarily imply that an export shortfall will arise in each year. Irrespective of whether the trend is rising or declining, a shortfall will emerge in successive years only if the rate of growth in each successive year is higher (or the rate of decline lower) than in the preceding year. Typically, export growth rates vary from year to year, with the result that shortfall years are interspersed with excess years. It is also not necessary for projected exports to recover in absolute terms from the export level in the shortfall year in order for a shortfall to exist. A shortfall under the formula does imply, however, a recovery in the growth rate of exports in the post-shortfall years; thus, when exports are continually declining, the negative growth in the two post-shortfall period must, by definition, be numerically smaller than negative growth in the preshortfall period (Table 3, row 2.2).

b. Issues raised by Executive Directors

Several Directors expressed concern that the formula currently used to calculate shortfalls can give rise to compensation in cases that they consider to be incompatible with the intent of the CFF. First, the formula allows compensation for export shortfalls from a steep downward trend in export earnings. Some Executive Directors felt that CF compensation in such circumstances was contrary to the intention of the facility, namely, to compensate shortfalls that are temporary in nature. A steep downward trend in exports, they considered, could indicate a serious long-term problem which might be best addressed by policy changes supported by purchases under one of the Fund's other facilities. Secondly, the formula also allows compensation in cases of a strongly rising export trend, which some Directors also regard as being contrary to the intent of the facility. They suggested that compensation should be limited when there was positive export growth from the preshortfall years to the shortfall year and when rapid export growth was forecast for the post-shortfall period. 1/

Directors expressing concern about the current formula suggested a number of possible amendments. First, to eliminate compensation in cases where exports are following a steep downward trend, one proposal was that the formula be revised to provide compensation for a shortfall only if the shortfall is associated with a recovery in projected exports that is at least equal to one half of the decline from average exports in the pre-shortfall years to the shortfall year. Second, to restrict compensation when exports grew from the preshortfall years to the shortfall year, it was proposed that the formula be amended to preclude compensation when that export growth exceeded a certain threshold. 2/ Another solution proposed was to limit compensation in cases of rapid export growth in the post-shortfall period.

Several Directors were also troubled by the projection errors inherent in the current approach, and the implication for over- or under-compensation. 3/ The staff was asked to examine the implications of

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1/ One Director considered that while in general it might not be appropriate to provide compensation for deviations from a declining trend, this could be considered in circumstances where the downward trend had resulted from the impact of protectionist policies of industrial countries on international prices of primary products.

2/ One Director suggested a threshold of 5 percent.

3/ The terms overcompensation and undercompensation as used here refer to the discrepancy between the actual purchases made, i.e., based on ex ante calculation of shortfalls--and simulated purchases based on ex post calculation of shortfalls--i.e., actual rather than projected exports for the two post-shortfall years. This use of the terms is different from that used in connection with the early drawing procedure. In that case, overcompensation or undercompensation refers to the discrepancy between the purchase made on the basis of partly estimated data for the shortfall year and the purchase established by use of actual data for the entire shortfall year. Overcompensation associated with purchases under the early drawing procedure is subject to an expectation of a prompt repurchase; no such expectation applies in respect of overcompensation established by using actual data for the post-shortfall years.

dispensing with projections altogether and basing shortfall calculations on past data only, including the possible use of a simple extrapolation technique. Other questions concerned the possibility of limiting the coverage of the CFF to primary commodities and the effect of making the shortfall calculations in real terms.

c. Modification of formula

(1) Extent of problem

In order to examine the extent of the problems involving upward or downward trends in exports and overcompensation, shortfalls related to 117 purchases made since 1979 have been classified according to three growth patterns: (1) a decline from the preshortfall years to the shortfall year followed by a recovery projected for the two post-shortfall years (classical shortfalls); (2) continuing growth to the shortfall year and growth projected for the post-shortfall years; and (3) continuing decline to the shortfall year and a decline projected for the two post-shortfall years (Table 4). Nearly two thirds of the cases were of the classical type--a decline followed by a recovery. The incidence of cases involving a continuing decline in export earnings has been minimal (3 out of 117), while that involving a continuing increase in export earnings has been more substantial (40 out of 117).

In addition to the 40 cases involving continuing export growth that can be considered potentially problematic for CF compensation, concern has also been expressed about the cases in each category of growth patterns where projected exports for the two post-shortfall years differ substantially from actual exports in the shortfall year. In order to identify the problem cases more closely, within each category, the classification was further refined to distinguish degrees of projected growth or decline in terms of it being pronounced, moderate, or small. For cases with classical shortfalls (decline followed by recovery), a recovery is deemed small if growth in the post-shortfall period was less than half the rate of decline in the shortfall year, while a recovery is deemed pronounced if growth in the post-shortfall period was more than twice the rate of decline in the shortfall year. On this basis, 39 of the 74 classical cases fit the definition of a pronounced recovery, and 4 of the remaining classical cases can be classified as having small recoveries. Applying the same criterion to the other two categories of growth patterns, 26 of the 40 cases of continuing growth can be classified as having pronounced growth (projected growth in the post-shortfall period exceeding twice the growth in the shortfall year), and none of the 3 cases of continuing decline fits the definition of a pronounced decline (projected decline more than half the rate of decline to the shortfall year).

Table 4. Classification of CF Cases by the Profile of Their Export Growth and Related Overcompensation

Export Earnings Profile	Actual Purchases 1/ Number of cases	Amount	Overcompensation 2/ Number of cases	Net amount 3/
		(SDR billion)		(SDR billion)
Continuing decline	3	0.3	1	--
Of which:				
Pronounced	--	--	--	--
Recovery	74	3.4	29	0.9
Of which:				
Small	4	1.0	--	--
Pronounced	39	1.4	--	--
Continuing growth	40	5.2	22	1.8
Of which:				
Pronounced	26	3.9	15	1.3
Total	117	8.8	52	2.7

1/ Based on projected earnings in the post-shortfall period.
2/ Actual CF purchases less purchases computed on the basis of ex post earnings data. Data cover 92 cases (purchases totaling SDR 7.5 billion) for which ex post earnings data are available.
3/ Gross overcompensation less gross undercompensation.

As regards the relationship between export growth patterns and overcompensation, sufficient ex post data are available for an analysis of 52 cases involving purchases through 1984 (Table 4). The largest amount of overcompensation (SDR 1.8 billion) is shown to be associated with 22 purchases involving shortfalls with continuing growth in exports, with the bulk of this (SDR 1.3 billion) attributable to 15 purchases with pronounced growth. There was only 1 case of a small overcompensation for a purchase based on a continuing decline in exports and 29 cases of overcompensation for shortfalls resulting from a decline followed by a recovery, but none of these was associated with either a small or a pronounced recovery.

This analysis suggests that any modifications to the formula should focus primarily on cases involving continuing export growth; none of the classical cases with unusually small or large growth rates resulted in overcompensation, and both the incidence of cases involving a continuing export decline and the overcompensation associated with them have been quite limited.

(2) Possible modifications

This paper does not attempt to provide a comprehensive analysis of the broader issues concerning the choice of an export norm for the purpose of CF calculations, a subject that has been addressed in previous studies and reviews of the CFF. 1/ Rather, this section and Annex III in the supplement to this paper examine possible modifications to the existing formula based on variants of suggestions made by Executive Directors. Several approaches are considered: (1) the first would preserve the present formula using judgmental projections, but would reduce shortfalls from their calculated values by use of a deductible factor; (2) the second approach would also preserve the present formula, but would introduce limits on projected exports; (3) the third explores use of a different approach, including an extrapolation technique, that would eliminate the need for judgmental projections. Possible modifications designed to calculate shortfalls in real rather than nominal terms and to limit compensation to shortfalls in primary product exports are also examined.

(a) Application of a deductible factor. The original intention of the CFF was not necessarily to compensate shortfalls in their entirety as the presumption was that a portion of the shortfall, perhaps corresponding to small export variations, should be covered from the member's own reserves. A relatively uncomplicated approach that would limit compensation to large export shortfalls would be to apply a deductible to the trend value of exports centered on the shortfall year, which would then form the basis for deriving the compensable shortfall. In this way, compensable shortfalls would always be reduced. 2/ Whether the purchase is affected, however, would depend on the size of the shortfall in relation to quota limits. Entitlements with respect to large shortfalls would not be affected because they are likely to be constrained by quota limits, but those relating to small shortfalls would either be reduced or eliminated. 3/

In Annex III a simulation exercise applying various uniform rates of deductible to the export trend for a sample of 117 cases was conducted with a view to examining the effect on total purchases, and the extent to which

1/ In addition to the article written at the time of the establishment of the CFF by Fleming, Rhomberg, and Boissonneault referred to above, of particular relevance are L. M. Goreux, Compensatory Financing Facility, Pamphlet Series No. 34 (1980), especially Appendix III, and "Possible Assistance to Member Countries Adversely Affected by Higher Food Costs," Part II.B (SM/80/264, 11/25/80).

2/ An alternative method would be to apply the deductible to the shortfall, but this method would result in compensable shortfalls no matter how small.

3/ This would occur when the calculated shortfall is smaller than the amount by which the shortfall is reduced on account of the deductible.

problem cases--those involving growth patterns considered not to warrant compensation, and those involving overcompensation--would have been eliminated. Alternative deductible rates of 2 percent, 3 percent, and 4 percent were applied. 1/ The 3 percent deductible was found to be most effective in (1) reducing overcompensation (because of projections which turned out to be too high), without unduly increasing undercompensation (because of projections which turned out to be too low); and (2) eliminating cases based on export growth patterns that do not warrant compensation. Net overcompensation in the period since 1979 would have been totally eliminated and the number of overcompensated cases reduced from 52 to 38. Thirteen of the 26 cases experiencing pronounced export growth in the post-shortfall period would not have qualified for a purchase; none of the cases falling in the other growth patterns would have been affected.

It should be noted, however, that use of a deductible cuts across the board in that it reduces all shortfalls irrespective of the pattern of growth rates and of any over- or undercompensation present before the deductible is applied. For this reason, the elimination of net overcompensation in the simulation was achieved, in part, by increasing the amounts of undercompensation for purchases that were undercompensated (because of projections which turned out to be too low). The deductible is by design rather more suited to addressing the problem of overcompensation than the problem of cases with unusual growth patterns; to the extent that the two are correlated, it may also achieve this latter objective, although at the possible cost of an increase in gross undercompensation.

(b) Application of projection limits. A conceptually different approach from the application of a deductible would be to place limits on the projected average level of earnings in the post-shortfall period. The limits, which could be defined in terms of a ratio of projected exports in the two post-shortfall years to average exports in the two preshortfall years, could be applied symmetrically (upper and lower bounds) or otherwise (upper bound only) and would be set independently of the level of actual exports in the shortfall year. 2/ The limits on export projections that were applied prior to the amendment to the CF decision in 1975 served two different purposes: the upper limit was used to constrain the amount of compensation associated with rapid export growth, whereas the lower limit served the purpose of guaranteeing a minimum level of compensation in cases of continuing export decline. These purposes were achieved by simply substituting the projection limits whenever the judgmental forecasts fell outside the upper and lower bounds. The concerns of the Executive Directors who addressed this issue during the March 1987 review can only be met by limits that would reduce or restrict compensation where exports are growing or declining too rapidly. Thus, limits would have to be used in such a way that the compensable shortfall would be reduced, and in some cases eliminated, both when the judgmental projections exceeded

1/ Annex III examines possible use of a variable rate of deductible, with the rate based on a country-specific index of instability.

2/ Thus, given any projection limit, the greater the decline in exports in the shortfall year, the larger the amount of compensable shortfall.

the upper limit and when the judgmental projections fell below the lower limit. While use of the upper limit in the traditional manner would achieve this purpose, use of the lower limit in that way would not do so. 1/

It is relevant to note that the formula has a built-in safeguard against compensating a member whose exports are projected to fall below a certain limit. Specifically, where exports are projected to decline at a higher rate than the decline from the preshortfall years to the shortfall year, the member would not qualify for compensation (because an excess rather than a shortfall would be indicated). This feature of the formula makes it possible to provide a broad distinction between those situations that call for a major adjustment effort, that is, where the export decline is expected to accelerate, and those for which CF assistance could be considered more appropriate, that is, where the export decline is expected to decelerate. To the extent that a member is undertaking the necessary adjustments to a persistent decline in its exports, the presumption has been that use of the CFF would be supportive of adjustment if the member encountered a shortfall from the trend on which it has based its adjustment strategy.

The comparative effects of various upper bounds governing the relationship between projected exports and past exports have been examined in a simulation exercise for the 117 sample cases. The procedure and simulation results are outlined in Annex III in the supplement to this paper. A simulation of particular interest, because its results are similar to those that would be obtained through the application of a deductible at a uniform rate of 3 percent, explores the results of limiting export projections to 120 percent of their average level in the preshortfall period. This limit would have reduced the number of overcompensated cases from 52 to 42 and net overcompensation from SDR 2.7 billion to SDR 0.6 billion. It would also have excluded 14 cases involving continuing export growth and none of the cases involving "classical" shortfalls--a decline followed by a recovery--would have been affected. 2/

An important consideration in the choice of an upper limit on projected exports is the global economic environment facing potential users of the CFF, particularly with respect to the inflation rate. A limit of 20 percent on export growth over the 3-year period from the center of the

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1/ The staff has, nevertheless, experimented with a method by which the lower limit could be used to constrain the amount of compensation associated with cases involving a steep downward trend in exports (see Annex III, Section 4.b).

2/ This includes cases with a declining trends of exports. A lowering of the upper limit to 115 percent would have resulted in a rise in the number of cases that would be excluded, to 21. All but one of the additional cases affected would be those characterized by pronounced export growth in the post-shortfall period; 5 of the 6 additional cases excluded by setting the limits at this range have projected post-shortfall growth rates of about 20 percent.

two preshortfall years to the center of the two post-shortfall years implies an annual growth rate of about 6 percent. The projection limit also implies a corresponding limit on growth from the preshortfall years to the shortfall year that would be consistent with the existence of a shortfall. 1/ The lower inflationary environment prevailing in the 1980s than in the 1970s perhaps strengthens the case for the setting of a projection limit. Nevertheless, with export prices of developing countries for the rest of the 1980s projected to increase at an annual rate of about 4-5 percent, any upper limit of less than 120 percent would seem inappropriate because it would effectively constrain export shortfalls to levels implying little volume growth in exports. These considerations also suggest that if a limit were adopted, provision should be made for its periodic review in light of developments in the rate of inflation.

(c) Use of formulae based only on past export earnings. As an alternative to the present judgmental forecast method, a formula could be devised for calculating export shortfalls by reference to past exports only, thereby avoiding the complications associated with the use of judgmental export projections. With a backward-looking formula, the norm, or trend value could be calculated as average exports in the most recent two or three years; it could also be calculated by extrapolation of past data. In effect the 5-year trend value would be estimated as a weighted average of past exports thereby providing an implicit projection of exports for the two post-shortfall years.

The capacity of backward-looking formulae to project exports can be examined by comparing the results of these formulae with ex post calculations of past CF purchases based on actual exports. The ex post calculations would in turn serve as benchmark levels against which the results of the backward-looking formulae could be compared.

(1) Averaging method. Simulations using the average of two or three years of actual (past) exports as a measure of the trend of exports in the shortfall year have been applied to 88 purchases made since 1979 (see Annex Table III.7 in the supplement to this paper). 2/ Defining the trend value in the shortfall year as the average of exports in the two preshortfall years, the simulation shows cumulative shortfalls of SDR 5.7 billion and purchases of SDR 2.1 billion; these levels are roughly half the corresponding benchmark levels implied by use of the current formula. If a 3-year average was used instead, simulated shortfalls and purchases are

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1/ For example, a projection limit of 120 percent would imply that annual growth in export earnings above 6 percent from the preshortfall years to the shortfall year would not lead to a shortfall.

2/ Purchases for which available data permit comparison of simulation results with those based on actual (ex post) shortfalls using the current formula. The results of an ex post calculation of shortfalls for the 88 purchases--CF use under the current formula and with perfect foresight--are used as a benchmark against which simulated shortfalls and purchases with backward-looking formulae are compared. Based on ex post calculations, benchmark levels are SDR 4.6 billion for purchases and SDR 10.1 billion for shortfalls.

compressed even further; the cumulative shortfalls would decline to SDR 1.2 billion and purchases to SDR 0.8 billion. 1/ Simulations using an alternative definition of trend value, based on least squares, however, resulted in aggregate shortfalls being four or five times the benchmark level implied by use of the current formula. 2/

(2) Extrapolation method. As with the averaging method, an extrapolation approach would rely entirely on past data, but here the past data would be used as a guide to provide an automatic projection of exports for the two post-shortfall years. It is relevant to note that when the automatic formula applied in 1963 was abandoned in 1975, the Board had authorized the use of an extrapolation formula, but for reference purposes only. 3/ Since then, shortfalls have been calculated only by use of judgmental projection of exports for the two post-shortfall years. The extrapolation formula was abandoned in 1979 following a determination that its use would have yielded unreasonable results. Simulations based on an extrapolation formula indicate a significant overstatement of aggregate shortfalls.

From the above discussion, it is clear that the backward-looking formulae examined in this paper resulted in either a significant understatement or overstatement of shortfalls. These results suggest that substantial experimentation with different weighting schemes for past exports would be necessary to achieve a useful estimation for the trend value of exports. It is by no means clear that a formula relying on past data alone could offer a reasonable alternative to the present judgmental method.

(3) Real versus nominal calculations 4/

The principal advantage of calculating export shortfalls in terms of purchasing power over imports (i.e., in "real" terms) by deflating the value of exports by some index of import prices is a better synchronization of CF assistance with balance of payments needs, since shortfalls calculated in real terms would be higher than in nominal terms

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1/ This large understatement of shortfalls is mainly due to the inherent limitation of the method used in that it does not take into account the impact of inflation.

2/ A backward-looking formula using real export earnings was also examined on the assumption that substantial changes in yearly inflation rates would tend to distort values expressed in nominal terms. The results of the simulations indicate substantially greater shortfalls than the benchmark level indicated by use of the current formula.

3/ Paragraph 6 of Decision No. 4912-(75/207); under this method exports for the two post-shortfall years are projected by multiplying exports in the two preshortfall years by a factor that corresponds to the ratio of actual exports in the most recent three years to exports in the three preceding years.

4/ This subject is discussed in greater detail in Annex IV in the supplement to this paper.

if import prices are above their trend value in the shortfall year. Another advantage is that adjusting exports for movements in import prices would go at least some way toward addressing the problem of compensating shortfalls pertaining to export products with a high import content. Adjusting export values for changes in import prices would tend to reduce compensation for a shortfall resulting from a decline in the price of an export product that was accompanied by a commensurate decline in the price of an imported input used for its production. Considerations of symmetry, however, suggest that an opposite adjustment would be required should an excess results from a rise in the export price of a product that was associated with a similar rise in the prices of imported inputs.

In order to assess the impact of conducting shortfall calculations in real terms, shortfalls have been calculated for a set of 105 developing countries in both real and nominal terms over the period 1962-1984. 1/ For the period as a whole, shortfalls under the two headings are broadly similar: the sum of real shortfalls exceeds the sum of nominal shortfalls by only 7 percent, although nominal shortfalls exceeded real shortfalls in 12 of the 23 years. These results, however, should be qualified by the outcome for 1984, the last year covered by the sample; it is conceivable that 1984 falls outside a complete cycle of shortfalls and excesses, thereby distorting the results. Excluding that year, which shows a substantially larger real than nominal shortfall, the sum of nominal shortfalls for the period 1962-83 would be 3 percent larger than that of real shortfalls. Clearly, the differences between real and nominal shortfalls are considerably more pronounced for individual years than is indicated by the aggregate figures for the sample period as a whole. This is because shortfalls calculated in real terms exceed nominal shortfalls in periods of sharp increase in import prices and vice-versa.

Against these considerations, the principal disadvantage of using real calculations is that, in periods of sharp changes in import prices, shortfalls could arise even though there would not be shortfalls associated with export receipts if calculated independently; in such circumstances, the facility would be compensating exclusively for changes in import prices, which may be considered to go beyond the intended scope of the facility. In addition, there is the practical difficulty of determining the most appropriate import price index to be used as the deflator and the difficulties of projecting this index; the projection errors already inherent in the current method of calculating shortfalls would be compounded by errors in forecasting import prices. Given these conceptual and practical problems, the staff would recommend retaining the present approach of conducting shortfall calculations in nominal terms.

1/ The simulations are discussed in Annex IV and the results are shown in Annex Table IV.4. The sample size was dictated by the availability of data for the whole period. The deflator used for the real calculations was a weighted average price index for the imports of primary producers derived from unit values of exports of manufactured goods and international market prices for primary commodities.

(4) Limiting CFF to primary commodities

The compensatory financing facility was conceived as a means of helping stabilize the foreign exchange earnings of those member countries, particularly the primary exporters, whose exports are subject to temporary fluctuations due to factors beyond their control. The growth of manufacturing exports in many primary producing countries has meant that shortfall calculations have increasingly included shortfalls in manufactured exports as well as in primary products. It has been suggested that purchases under the facility should perhaps be limited to shortfalls in primary product exports alone.

It is generally recognized that exports of primary products are less stable than manufactured exports owing to lower price elasticities of supply and demand than for manufactures as well as to the vulnerability of supply of primary commodities to natural factors. An analysis was undertaken to compare the instability of export earnings for countries dependent largely on primary products with that for countries dependent chiefly on manufactures. For this purpose, exporting countries were classified according to the WEO definition of export dependence. 1/ As expected, developing countries exporting primary products have a markedly greater record of instability (roughly twice) than that of exporters of manufactures. Fuel exporting countries have the highest index of instability, reflecting the sharp changes in oil prices since the early 1970s. Despite these general tendencies, the export earnings from manufactures of countries mainly dependent on exports of primary products do vary considerably from year to year, because the manufacturing sectors of these countries are typically in an early stage of development and as such are susceptible to external shocks. This is one reason why it would seem inappropriate to exclude manufactured exports from coverage under the CFF.

The exclusion of manufactures from coverage under the CFF would also create a number of operational problems. There are definitional problems concerning what is a primary commodity and what is a manufactured good. In addition, trade data frequently include residual items for which no attempt at classification is made. In any case, purchases under a more restrictive scheme, involving compensation for shortfalls based on primary commodities only, might not be materially affected; a simulation of past purchases indicates that more than half of the purchases would not have been affected on the basis of shortfalls calculated for primary commodities only. 2/

1/ International Monetary Fund, World Economic Outlook (April 1987), pp. 110-11.

2/ For a sample of 200 purchases made under the CFF since 1976, purchases were simulated on the basis of primary products alone, as identified in staff papers reporting on requests. In 55 percent of the cases the simulated purchase would have been the same as the actual purchase; in 40 percent, the simulated purchase would have been lower than the actual purchase, while in 5 percent the simulated purchase would have exceeded the actual purchase. In many practice, however, shortfall calculations include a category "unidentified exports" which invariably includes primary products as well as manufactures. For this reason, the results of this simulation exercise need to be interpreted with caution as the simulation probably understates the shortfalls based on primary products only.

Finally, limiting compensation under the CFF to shortfalls on account of primary products only would have implications for the decision which has always provided for compensation on account of shortfalls in total exports and is therefore open to use by all members.

2. Overcompensation

An ex post analysis of shortfalls based on actual data reveals that there have been frequent occurrences of both over- and underestimation of shortfalls, which have given rise to considerable net overcompensation of purchases (Annex V). Although overestimated shortfalls do not always translate into an equivalent overestimation of purchases, because of the effect of quota limits, the magnitude of overestimated shortfalls has resulted in a considerable gross overestimation of purchases. Shortfalls that are underestimated ex ante do not necessarily result in an underestimation of purchases, as a purchase may already have exhausted the amount available under the quota limit; as a result, the sum of underestimated purchases has been comparatively small. One of the major causes of the overestimation of shortfalls has been found to be the difficulty of determining accurately the turning point in the price cycle. A good example of this difficulty is provided by the experience during the 1981-82 recession when the Fund staff, in common with most other forecasters, miscalculated the duration of the recession.

There are at present no procedures for avoiding overcompensation that results from errors in the projection of exports for the two post-shortfall years. 1/ The paper presented for the review of the CFF in March drew attention to this problem. Directors considered that adjusting for overcompensation calculated ex post, i.e., after actual data for the projection period become available, may be impractical; it would require the member to submit export data for the two post-shortfall years nearly three years after the purchase, by which time the member would be close to making scheduled repurchases. There was no objection, however, to the proposal

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1/ Existing procedures provide for avoidance of overcompensation in two situations. The first is where the early drawing procedure, which provides for a purchase using up to six months of estimated data for the shortfall year, gives rise to overcompensation--a situation where the purchase is larger than the shortfall subsequently calculated by use of actual data for the shortfall year. In this case an early repurchase is expected for the amount by which the purchase exceeds the actual shortfall. This type of overcompensation is established shortly after the purchase, as the member using the early drawing procedure is required to provide the necessary data within a specified period. In case of overcompensation the member is expected to make a repurchase within 30 days of being notified by the Fund. In addition, where a purchase is made on the basis of a shortfall year that overlaps with another shortfall year supporting a previous CF purchase, overcompensation is avoided by deducting from the second shortfall an amount equivalent to the first purchase prorated by the number of overlapping months.

to deal with overcompensation in successive purchases where the shortfall year of the second purchase fell within the projection period of the previous purchase.

Where a member makes a request for a purchase in relation to a shortfall year that overlaps with the projection period of an earlier purchase, it would be possible to re-estimate the first shortfall on the basis of data available at the time of the second purchase. In this way, the element of overcompensation in respect of the first purchase could be established and, in determining the compensable amount for the second purchase, this element could be deducted from the second shortfall. Without this adjustment, the member would, in effect, have been compensated twice with respect to developments over the same period: first, by projecting a recovery over the two post-shortfall years, a shortfall was established for the first purchase; second, when actual exports turn out to be less than projected, the lower outturn is used to establish a shortfall for a second purchase without account being taken of the fact that the first purchase was overcompensated. A symmetrical adjustment should in principle be made where the first purchase was found to have been undercompensated, but the conditions giving rise to augmentation of the second purchase are in practice likely to be rare. 1/ It may also be considered appropriate to require an adjustment for overcompensation if a member requests a purchase while an earlier purchase is still outstanding. In this case, the element of overcompensation could either be deducted from the second shortfall or made subject to an early repurchase.

Of the 168 purchases that have taken place since 1976, 61 involved projection periods for purchases that overlapped with subsequent purchases, and of these 61 cases there were 24 cases where the first shortfall was overcompensated (Table 5). Overcompensation on account of this overlap amounted to SDR 0.8 billion, or about one quarter of total overcompensation over the period. Adjusting the second purchase by the amount of overentitlement from the first purchase would have resulted in a reduction in overcompensation of SDR 0.3 billion, or about 10 percent of the amount of overcompensation from the entire sample.

The staff considers that any duplication of compensation in successive CF purchases with respect to developments in the same period is not in keeping with the intent of the facility. Accordingly, the staff recommends that consideration be given to the adoption of the procedures outlined above to avoid overcompensation in such situations. Executive Directors may also wish to consider whether an adjustment should be required whenever overcompensation in respect of a purchase that is still outstanding is established at the time of a subsequent request.

1/ This is because the first shortfall would be undercompensated only if the projection turned out to have been pessimistic, in which case the rationale for a second purchase may not exist.

Table 5. Adjustment of Overcompensation on Account of Projection Errors--Simulation of Cases Where Shortfall Year of a Purchase Overlaps Projected Period of an Earlier Purchase 1/

(In billions of SDRs)

	Number of Cases	Ex Ante		Ex Post		Ex Ante - Ex Post	
		Shortfall	Drawing	Shortfall	Drawing	Shortfall	Drawing
	(1)	(2)	(3)	(4)	(5)	(6)=(2)-(4)	(7)=(3)-(5)
1. All drawings	168	19.3	10.8	19.8	7.4	-0.5	3.5
1.1 Cases with no overlap	107	12.7	7.2	12.7	4.5	--	2.7
1.2 Cases with overlap 2/	61	6.6	3.7	7.1	2.9	-0.5	0.8
1.2.1 Correct or under-compensated	37	4.3	2.1	6.4	2.2	-2.1	-0.1
1.2.2 Overcompensated	24	2.3	1.5	0.7	0.7	1.6	0.8
2. Overlapping cases involving overcompensation	48	4.2	2.6	1.7	1.1	2.5	1.5
2.1 First purchase overcompensated	24	2.3	1.5	0.8	0.8	1.5	0.8
2.2 Second purchase	24	1.9	1.1	0.9	0.3	1.0	0.8
2.3 Adjustment of second purchase	24	1.9	1.1	1.1	0.7	0.8	0.3
2.3.1 Purchase not affected	9	0.6	0.2	0.4	0.2	0.2	--
2.3.2 Purchase reduced by less than amount of overcompensation	10	0.8	0.4	0.5	0.3	0.3	0.1
2.3.3 Purchase reduced by full amount of overcompensation	5	0.4	0.4	0.2	0.2	0.2	0.2

1/ Totals may not add due to rounding. More precise data and details on the method of calculation are given in Annex Table V.5.

2/ Overlap refers to instances where the shortfall year of a purchase overlaps with the post-shortfall period of an earlier purchase.

3. The cereal decision

On the occasion of the review of the cereal decision (Decision No. 6860-(81/81) in May 1987 (EBM/87/73 (5/13/87)), a number of Executive Directors asked for an examination of the effects of proposals for modifying certain aspects of the decision. 1/ Specifically, they requested an examination of the effects of relaxing the 3-year rule requiring cereal imports to be included in the calculation of entitlements for CF requests for three years after the date of a purchase that had been based on a cereal excess; the possibility of creating a separate facility for cereal excesses alone; and the implications of providing assistance under the cereal decision on a concessional basis.

The 3-year rule governing purchases under the cereal decision was designed as a means of conserving the use of Fund resources by preventing a member from alternating between the cereals option and the CFF. 2/ It has been suggested that this feature has inhibited use of the cereal option. Since the time of approval of the decision in 1981, there have been only 13 purchases under the cereal decision resulting in total compensation for excesses in cereal import costs amounting to SDR 505 million; only 10 purchases actually included a cereal excess. Since the review of the cereal decision by the Executive Board in May 1985, there have been only 2 purchases under this option, and no purchases have taken place since December 1985.

Members may have refrained from requesting purchases on account of cereal excesses and opted for use of the CFF (on the basis of export earnings only) on the grounds that over time the latter would have provided larger access. Under the cereal decision a member purchasing on account of a cereal excess would have to include a cereal element in any subsequent requests for use of the CFF on account of export shortfalls. Thus, if a purchase relating to a cereal excess was for less than 83 percent of quota (i.e., maximum purchases for export shortfalls), it may be constrained at this level because any subsequent purchases would also have to include a cereal element that may offset, either wholly or in part, any export shortfall. In this case, exercise of the cereal option would involve a risk that total access would be constrained. However, of the 10 purchases under the cereal decision that included a cereal excess, 6 had the effect of raising outstanding CF purchases above the separate quota limit (100 percent to end-1983 and 83 percent thereafter) and only one member would have obtained larger access by using the CFF for export shortfalls rather than opting to use the cereal decision (Annex VI). This experience suggests that the 3-year rule may not have been a significant deterrent to use of the cereal decision.

1/ Following a review by the Executive Board in May 1985, the cereal decision, which was established in 1981 for a period of four years, was extended for a further period of four years ending in May 1989.

2/ A similar provision is included in Decision No. 6224-(79/135) to cover an option to include or exclude receipts from travel and workers' remittances in earnings for the purpose of calculating export shortfalls. In the case of these services, the choice is in effect for five years.

If the 3-year rule were deleted from the cereal decision, countries would purchase under the decision only when they have a cereal excess that is either added to an export shortfall or not completely offset by an export excess; requests for purchases based on export shortfalls at all other times would be made under CFF Decision No. 6224-(79/135). Thus, deletion of the 3-year rule would be tantamount to the establishment of a separate cereal facility except that in determining the amount of a purchase under the cereal facility any excess on account of exports would be offset against the cereal excess.

In considering whether the existing cereal decision might be replaced by an entirely separate facility for the financing of cereal excesses, independent of developments in exports, one element is the potential effect on use of the Fund's resources. Clearly, the extent to which the sum of purchases relating to export shortfalls and those relating to cereal excesses taken together would differ from purchases under the present scheme would depend partly on the quota limit applicable to the separate scheme and partly on the extent to which compensation was reduced because of the integrated nature of the present scheme. In a simulation of the 13 actual cereal purchases, various quota limits under the cereal decision have been assumed. Under the most liberal assumption, quota limits on cereal purchases are the same as those applying to export shortfalls and there is no joint limit. The results show that under a separate facility purchases on account of cereal excesses would have amounted to SDR 753 million, some SDR 250 million more than actual purchases (Table 6, row 4.3); including purchases for export shortfalls, aggregate purchases would have exceeded actual purchases under the cereal decision by SDR 275 million. With the introduction of a joint limit of 105 percent of quota, cereal purchases would have exceeded actual purchases by only about SDR 85 million and aggregate purchases would have exceeded actual purchases by about SDR 100 million. An additional simulation constraining access under a separate cereal facility to 33 percent of quota was also undertaken. This would have had the effect of reducing cereal purchases by SDR 31 million. Of course, these simulations are likely to provide only limited information on how actual purchases would have evolved, as they do not take into account any additional purchases that may have been generated by a separate scheme.

One effective way to simplify the administration of the cereal facility and possibly improve its usefulness to members would be to separate it from the facility that compensates for export shortfalls; to a certain extent, this purpose could also be achieved by deletion of the 3-year rule. The risks of reduced access within a 3-year period of a country opting for a purchase under the cereal decision, although to date not great, would be removed. More important, the compensation of cereal excesses, especially in the case of a separate facility, would have a more independent identity, which would be likely to increase its usefulness. Countries confronted with short-term food supply problems requiring commercial food imports would be able to assess much more easily the prospects for them to obtain urgently needed finance to compensate outlays for cereal imports. It may be useful in this context to think of a cereal facility as providing a specific type of emergency assistance; it is evident that timeliness is a particularly important consideration in the case of the financing of food imports. Requests for compensation of excesses in cereal import costs would also be likely to increase if certain countries became eligible for compensation on concessional terms (as discussed in Part IV.1). These arguments must be weighed against the drawback that separate facilities compensating for fluctuations in various components of the balance of payments tend to provide less overall stabilization than compensation for fluctuations in the sum of these components. Moreover, weight must be given to the costs associated with modifying the cereal facility on the above lines, and to the relationship of the combined access under special facilities to members' access under other Fund facilities. The latter consideration suggests that, should the Executive Board decide to establish a separate cereal facility, it may be appropriate to retain a joint limit on compensation under the two compensatory facilities.

Table 6. Simulation of Purchases Under Alternative Arrangements for the Compensation of Excesses in Cereal Import Costs, 1981-87

(In millions of SDRs)

	Cereal Excesses	Export Shortfalls	Total
1. Sum of excesses and shortfalls	1,086	1,037	2,123
2. Actual purchases under cereal decision	505	610	1,115
3. Simulated purchases without 3-year rule			
3.1 With joint limit (83/83/105)	505	612	1,117
3.2 Without joint limit (83/83)	505	637	1,142
4. Simulated purchases under separate cereal facility			
4.1 With joint limit (83/83/105)	589	627	1,216
4.2 Without joint limit (33/83)	447	637	1,084
4.3 Without joint limit (83/83)	753	637	1,390

Notes:
1. 83/83/105 refers, respectively, to quota limits on purchases for cereal excesses, export shortfalls, and the joint limit on both.
2. Comparable limits for purchases prior to 1984 are 100/100/125, which were in effect at that time.
3. In row 4.2, prior to 1984 the limit for purchases in relation to cereals is assumed to be 50 percent.

4. Other issues

At the March meeting on the review of the CFF, some Executive Directors commented on two other issues relating to the implementation of the CFF which had been outlined at some length in the staff paper. These issues concerned responsibility for the shortfall and the adjustment for the import content of exports.

a. Responsibility for the shortfall

Relatively few Directors in the discussion at the March meeting focused attention on the criteria used by the staff for assessing the requirement for purchases under the CFF that the export shortfall be beyond the control of the requesting member. Some Executive Directors, however, suggested that consideration be given to deduction from the compensation of that part of the shortfall which was not considered clearly beyond the country's control. One Director stated that his chair had in the past criticized staff papers relating to individual country requests for being unduly vague on the contribution of the exchange rate to the shortfall. He noted that this practice was in contrast to the analysis contained in staff papers of the likely effects of exchange rate changes on future export performance. Other Directors noted that the procedures applied by the staff have, in this respect, served the purpose of the CFF adequately and argued that the adoption of any scheme to separate precisely that part of the shortfall that is within the control of the member would be complicated and difficult to administer.

Prolonged currency overvaluation may be expected to affect export earnings over a considerable period--not only in the shortfall year, but both before and after it. In such circumstances, overvaluation may be of more significance in determining the trend of export earnings than the size of a deviation (shortfall) from it. There are, nevertheless, instances where overvaluation is likely to have had considerable impact on the size of the shortfall. Studies of past CF purchases are unlikely to provide examples of such an impact because staff assessments at the time would probably have resulted in a potential CF request not being pursued under the circumstances. In the future, nevertheless, the concern of the Executive Directors on this matter could be addressed by giving more explicit attention to the possible effects of overvaluation in individual CF requests that are brought before the Executive Board for consideration.

b. Import content of exports

At the Board review of the CFF in March, one Director stated his reservations over present practice of taking no account of the import content of exports in calculating shortfalls. He considered that the difficulties in making an adjustment to take account of cases of very high import content could be overcome. He thought that standards could be developed for an appropriate adjustment which would be no less satisfactory than the others presently in use in the computation of shortfalls.

Another Executive Director, however, noted that if there were an adjustment for import content, there should also be an increase in compensation in the case of higher costs for imported components that are used in the production of exports, as well as a reduction in the case of lower costs. He, nevertheless, opposed such adjustment on the grounds of the practical difficulties involved, many of which were outlined in the staff paper.

There are, in addition to the symmetry issue, two major practical problems relating to the adjustment of export earnings for import content: (1) determining the import content, in particular the degree to which account should be taken of indirect import content as opposed to direct raw material imports, and (2) linking the timing of the import of components to the timing of exports. 1/ The degree to which adjustments could be made also depends very much on the availability of data, and this dependence could raise problems in the administration of the CFF with respect to uniformity of treatment of members and the timeliness of disbursements. As discussed in the section on real and nominal shortfall calculations, use of real export values--nominal exports deflated by an appropriate index of import prices--could in principle achieve part of the objective sought through adjustment for the import content of exports. Here again, there are practical as well as conceptual problems associated with the use of real values. In view of these considerations, and as the extent of the problem related to import content of exports has in practice been rather limited, the staff would recommend that current procedures be maintained.

IV. Other Policy Issues

This section discusses two important policy issues: the first examines a proposal to provide concessional assistance to low income countries using the CFF; the second sets out considerations relevant to possible use of the CF mechanism to provide for financial assistance in the event of certain contingencies encountered in the course of adjustment programs supported by Fund arrangements.

1. Concessionality

During the review of the CFF by the Executive Board in March, the Executive Director appointed by France proposed that less developed countries which have "embarked on the long process of adjustment and diversification with the assistance of the IMF and the World Bank" be given access to the CFF on concessional terms. It was proposed that concessional terms be provided with regard to the rate of charge on purchases outstanding and to the timing of repurchases.

As with other purchases from the Fund's general resources, use of the CFF is subject to repurchase in the fourth and fifth years after the purchase, unless improvements in the country's balance of payments

1/ For a more detailed discussion of these issues, see EBS/87/13, 1/26/87, Part III and Annex II.

position warrant an earlier repurchase. The schedule provides for repurchases in eight equal quarterly installments beginning at the end of the first quarter of the fourth year after the purchase. A "periodic rate of charge" is paid each quarter on the outstanding balance; the rate of charge, which is subject to change from time to time by decisions of the Executive Board, is currently about 6 percent per annum (in financial years 1984/85 and 1985/86 the rate was 7 percent per annum). 1/

In order to handle any subsidy element in a concessional arrangement for the CFF, a special account would be established under Article V, Section 2(b) for the benefit of members eligible for the contemplated subsidy. This account might be operated along the lines followed for the Supplementary Financing Facility Subsidy Account which was established by Decision No. 6683-(80/185) G/TR, adopted December 17, 1980, to reduce the cost for low income developing members of using the supplementary financing facility. 2/ In the discussion below, it is assumed that the Fund, using resources contributed by members and nonmembers of the Fund, would administer a subsidy on the rate of charge and the financing of repurchases by eligible members.

For illustrative purposes it may be assumed that the special account paid an annual rate of 3 percent to the Fund on outstanding purchases on behalf of the country, which, at the present rate charged by the Fund would imply a charge of about 3 percent to be paid by the country itself. With a fixed rate of subsidy, the rate of charge paid by the member would, in this illustration, vary depending on the rate of charge applied by the Fund; should the IMF rate of charge be increased again to 7 percent, the subsidy account would continue to pay 3 percent and the rate to be paid by the country would increase to 4 percent.

As regards the repurchase period, it is assumed that the terms of the structural adjustment facility (SAF) or similar terms, would apply. Repurchases under the SAF are spread over a 5-year period from the sixth to the tenth years. In order to extend the repayment period for the country making a CF purchase to the tenth year as in the case of a SAF drawing, the special account would have to make part or all of the repurchases on behalf of the country in the fourth and fifth years and collect compensating amounts from the country over the sixth to tenth years. In the calculations, two alternatives are assumed: under Scheme A, a country makes its repayments in equal installments over the sixth to tenth years (as repayments to the special account); and under Scheme B, a country makes its repayments in equal installments over the fourth to tenth years (the first two years as repayments to the IMF and the last five years as repayments to the special account).

1/ The rate of charge in financial year 1986/87 was 6.0 percent; it has been reduced to 5.89 percent for financial year 1987/88. This discussion does not include consideration of the initial "service charge" currently set at 0.5 percent of the purchase.

2/ Assets held by the Fund in the Special Disbursement Account may be used, say, for assistance on special terms to developing country members in difficult circumstances as provided under Article V, Section 12(f)(ii).

The total costs of a concessional arrangement would depend very much on the number of countries deemed eligible for such an arrangement. Experience in the use of the CFF by countries eligible for the SAF may be relevant. Over the period 1976-86 purchases under the CFF by SAF countries (not including China and India) ranged from a trough of SDR 86 million in 1984 to a annual peak of SDR 642 million in 1982 (Annex Table VII.5); the annual average was SDR 243 million. Beginning with 1981 data include compensation with respect to excesses in cereal import costs averaging around SDR 30 million per annum. While purchases by these SAF countries accounted for 48 percent of the total number of CF purchases, they accounted for only 20 percent of the total value of CF purchases in this period. Thus, typically CF purchases by SAF countries were much smaller than purchases by other countries, generally reflecting lower quotas for SAF countries. Should these countries be deemed eligible for concessional purchases, it may be appropriate to assume average annual CF purchases somewhat larger than the average for SAF countries in 1976-86, on the assumption that concessionality may increase somewhat the demand for CF purchases.

On the basis of these considerations, an assumption of average annual purchases of SDR 300 million would appear to be the most relevant of the alternatives outlined in Table 7 for the purpose of assessing costs associated with a subsidy account established under Article V, Section 2(b). For this amount the cost of the subsidy--at a rate of 3 percent--on the rate of charge would amount to about SDR 37 million per annum (from the fifth year). Under the repayment deferral arrangement (Scheme A) the financial requirements for the special account (excluding the subsidy on the rate of charge) would reach a peak at about SDR 1,050 million by the tenth year and remain at that level. Under the repayment extension arrangement (Scheme B) financial requirements would stabilize beginning in the tenth year at a level of SDR 750 million. Financing could be raised by subscription or borrowing with contributions to cover the interest cost, or both. Should these funds be obtained commercially at a rate of 9 percent, and countries be required to pay a rate of charge of 3 percent on outstanding credit from the special account, the annual cost of the finance required to defer the repayment period (Scheme A) would rise to about SDR 63 million (by the tenth year). Similarly the annual cost of the finance required to extend the repayment (Scheme B) period to about SDR 45 million (by the tenth year). Thus, the financial contributions to operate both the subsidy on the rate of charge and the lengthening of the repurchase period is projected to be in the order of SDR 80-100 million per annum, an amount that would have to be raised from members and nonmembers of the Fund. The Fund's general resources cannot be transferred to a special account administered under Article V, Section 2(b) to subsidize the payment of charges and repurchases by eligible members.

2. Contingent use of the CFF--some considerations

The modifications to the CFF described in Part II are designed to enhance the role of the facility in supporting adjustment programs in the face of adverse exogenous developments affecting export receipts. Other approaches to supporting adjustment programs against the contingency of such adverse developments are possible. For instance, additional resources could be made available in the course of a Fund-supported program if export earnings fell below the path projected in the program. This approach would have the advantage of providing some assurance of additional financing in the course of the program if exports deviated from their expected level, without requiring the existence of a shortfall from a trend value as conventionally defined under the CFF. For contingency compensation to be warranted, the compensable deviations from projected paths would have to be both temporary and due to factors largely beyond the member's control.

Table 7. Requirements to Finance a Concessional CF Arrangement Under Different Assumptions Concerning Level of Drawings and Subsidies on Rate of Charge

(In millions of SDRs)

	Average Level of Annual Drawings				
	100	200	300	400	500
Annual cost of subsidy on IMF charges 1/					
At 1 percent	4.1	8.3	12.4	16.5	20.7
At 2 percent	8.3	12.4	24.8	33.1	41.3
At 3 percent	12.4	24.8	37.2	49.6	62.0
At 4 percent	16.5	33.1	49.6	66.1	82.7
Repayment deferral					
Scheme A					
Average finance required 2/	350.0	700.0	1,050.0	1,400.0	1,750.0
Cost at 9 percent	31.5	63.0	94.5	126.0	157.5
Contribution of countries (3 percent)	10.5	21.0	31.5	42.0	52.5
Net cost (6 percent)	21.0	42.0	63.0	84.0	105.0
Repayment extension					
Scheme B					
Average finance required 2/	250.0	500.0	750.0	1,000.0	1,250.0
Cost at 9 percent	22.5	45.0	67.5	90.0	112.5
Contribution of countries (3 percent)	7.5	15.0	22.5	30.0	37.5
Net cost (6 percent)	15.0	30.0	45.0	60.0	75.0

1/ From the fifth year. In earlier years cost is less (as indicated in Annex Table VII.3.

2/ From the tenth year. In earlier years cost is less (as indicated in Annex Table VII.3.

Some of the issues raised by contingency mechanisms were discussed in the context of the stand-by arrangement with Mexico and more generally during the Executive Directors' review of program design and performance criteria, as well as during their consideration of the CFF issues paper in March this year. 1/ The issue of a general contingency mechanism has also been raised in the recent report of the working group of the G-24. 2/ The preliminary consideration of this matter in this paper is meant to provide a focus for discussion of the possibility of arranging for contingency support of adjustment programs within the overall mechanism of the CFF.

Any detailed assessment of the potential contribution of contingent use of the CFF would require an examination of the influence of unanticipated developments in exports on performance under Fund-supported arrangements. A preliminary examination of stand-by arrangements that were approved between 1982 and 1986 and were subsequently interrupted indicates that the conditions for contingent use of the CFF might have been met in about half of the arrangements.

The discussion below deals first with the coverage of a contingency mechanism and with a number of its possible features, and it continues with an assessment of how contingent financing might be linked to program reviews and to the CFF. The presentation does not encompass in any detail the relationship between contingent financing and adjustments to performance criteria, nor does it cover the issues raised by the possible link between contingent financing from the Fund and additional financing from other sources. These two aspects of the contingency approach have been addressed in EBS/82/211, and in any event are likely to be specific to the circumstances of each country.

a. Coverage

Contingent access to Fund resources within the CFF mechanism could be triggered by deviations of export receipts from the projected path. In this way, the contingency scheme would closely resemble the CFF. This approach would require advance agreement, as part of the program negotiations, on the projected path of export receipts and the subsequent determination of whether or not any deviation from the path is due to causes beyond the member's control. This latter determination could cause difficulty, which could conceivably be circumvented by substituting for export receipts some unambiguously exogenous component, or components, of export receipts--which would by definition lie outside the sphere of

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1/ EBM/86/148-149, 9/8/86, EBM/86/190, 12/3/86, and EBM/87/36, 3/3/87, respectively. As background to the discussion in December 1986, the staff had prepared the paper "Program Design and Performance Criteria--Automatic Adjustments in Response to Developments in Commodity Prices and Economic Growth" (EBS/86/211, Supplement 2, 11/11/86).

2/ Intergovernmental Group of Twenty-Four on International Monetary Affairs, The Role of the IMF in Adjustment with Growth, Report of the Working Group of G-24, Washington, D.C., March 25, 1987.

control of the member concerned. For instance, the contingency mechanism could be based on the prices of selected primary commodities that represent a substantial proportion of total exports and for which international price data are readily available. 1/

There are two principal arguments in favor of basing activation of the contingency on the value of total exports, not on prices. First, it is clearly the expectations governing the totality of exports that are relevant to program design and financing need. Unless a single commodity or group of commodities accounts for a large share of exports, deviations from projected values are unlikely to provide adequate indication of financing need; in addition, there is also the possibility that adverse deviations in some commodities would be offset by favorable ones in other exports, including manufactures. 2/ Second, using the movement of international prices to trigger the contingency ignores any impact of a decline in volume that may arise from factors largely outside the control of the member. As noted, use of the CFF has always required that the export shortfall be due to circumstances largely beyond the control of the member, and it would be the intention to apply the same criterion in assessing the causes of deviations in exports from projected paths.

b. Temporary character of the contingency

An important issue in designing any contingency mechanism would be the determination of the extent to which the increase in the balance of payments deficit associated with the adverse development in exports would require additional financing or a tightening of adjustment policies. Generally, adverse developments that are temporary, or have only transient effects, would justify compensatory action. Financial support in these circumstances would provide the time needed for additional adjustment measures to be implemented and their effects to come through. More persistent adverse developments are likely to require redesigning the adjustment program.

1/ Limiting the coverage to specified primary products, or more particularly to developments in the prices of those products, would have the advantage that primary product price data are available relatively quickly and where the member is a price-taker there could be little doubt that the deviation was beyond its control. However, more difficult assessments would still be involved in cases where the member's actions had an important influence on international prices or where developments in primary products, although the largest portion of total exports, could be offset by movements in manufactured exports.

2/ In this connection it is noteworthy that in a sample of 19 countries where program interruption was accompanied by an export deviation, there were 10 countries whose export diversity was such that between two and four commodities would be needed to account for more than 50 percent of export earnings. In the other 9 countries, one commodity accounted for at least 50 percent of exports with the highest share amounting to 88 percent.

c. Cooperation with the Fund

As under the CFF, disbursement of contingent resources would depend on the member meeting the test of cooperation. As disbursement of contingent resources would be associated with other purchases involved in the arrangement, this requirement would be fulfilled through the fact that disbursement would depend on meeting any performance criteria that applied, as adjusted in accordance with the contingency mechanism, or as waived or modified in light of other considerations.

d. Symmetry

The symmetry of the Mexican contingency--whereby unexpectedly favorable oil prices would not lead to a relaxation of adjustment policies but rather to augmentation of reserves or prepayment of external debt to commercial banks--was viewed favorably by the Executive Board. Such a provision might be made a standard feature of any contingency mechanism. Dispersion of funds becoming available through unexpectedly favorable developments in external receipts could be limited to augmentation of reserves or, conceivably, take the form of early repurchases, which would have the effect of increasing the availability of Fund resources in the event of future need.

e. Operational matters

A contingency mechanism triggered by reference to total exports would require a review of export developments under the program in order to ensure that the criteria that would activate the contingency had been met. In this review the issue of temporariness of the export deviation would be an important one. It would be inappropriate to provide additional financing in the case of an anticipated long-term decline in exports, since this could encourage a delay in the implementation of additional adjustment measures. This could pose a particular difficulty in cases where a member already had a large burden of external debt, including to the Fund, and where the contingency purchase would add to debt service obligations at a time of diminishing export prospects. To the extent that the export deviation was temporary, and that the medium-term outlook remained unchanged from original projections, it would not be expected that additional policy adjustments would be required, provided that available access was sufficient to compensate for the export deviation. However, where available access covers only a part of the temporary export deviation, it would be expected that, unless additional finance was made available to cover the financing gap, policies would be adjusted so as to preserve the objectives of the program.

The modalities of the contingency mechanism, particularly as to the size and timing of disbursements, would need to be examined in greater detail, if needed, at some later stage. Among the considerations that would have to be examined further are the following: first, it would be important to guard against over-optimistic export projections at the outset of the program. Unduly optimistic projections would lead to early and frequent triggering of the contingency mechanism. Second, a question arises as to whether the full amount of the contingency should in general be available upon activation, if warranted by the size of the deviation, or whether an amount should be held in reserve for the remainder of the program. It is also for consideration whether any amount of contingent financing made available should be fully disbursed immediately or whether disbursements should be linked to performance under the accompanying stand-by arrangement. As contingent use is intended specifically to assist in keeping adjustment programs on track, there may be some merit in holding resources in reserve as insurance against further adverse exogenous developments, and to phase the contingent resources to strengthen the adjustment incentive. However, this would be at the cost of limiting the usefulness of a contingent purchase in providing quick access to additional resources. These considerations would become particularly important in cases where the program spanned more than one year. Third, in allowing use of the contingency mechanism in connection with a program review, consideration would also have to be given to the question of whether account should be taken of any offsetting deviations in other elements of the balance of payments from their projected levels.

f. Relationship between contingency financing mechanisms and the financing of export shortfalls

Contingency mechanisms in Fund-supported adjustment programs would not preclude use of the CFF in its more familiar role of financing export shortfalls. As suggested earlier, use of the first tranche of the CFF would not, in general, require a Fund stand-by or extended arrangement to pass the test of cooperation; it would thus remain available to be used if an export shortfall should develop either while an arrangement was in effect or at other times. Similarly, an export shortfall that was regarded as reversible without requiring implementation of adjustment policies could result in a purchase of the entire amount available under the quota limits of the CFF. Where a Fund-supported adjustment program was considered necessary to meet the test of cooperation, CF drawings and contingency drawings could be either administered separately or as a joint facility. In the latter case, rules would have to be devised governing access to the resources available under the facility in the presence of either export shortfalls or contingent export deviations, or both. For instance, one possibility would be to provide for contingent access to the CFF only in circumstances when shortfall conditions are absent; conversely, it would also be possible to provide access under the CFF beyond the first CF tranche only for contingency financing.

V. Summary and Recommendations

This paper has analyzed in some detail and presented for consideration some possible solutions to the concerns of Executive Directors that were expressed at the Executive Board meeting of March 3, 1987, which considered recent experience with the implementation of the facility. This part provides a summary of the main issues raised by Executive Directors and the staff's suggested modifications.

As the suggested modifications contained in Parts II and III of the paper cover a number of novel ideas for consideration by Executive Directors, a draft decision would at this stage be premature. It would be the intention to circulate a draft decision for review by Executive Directors in light of the guidance provided by the forthcoming Board discussion.

1. Conditionality and related issues

While it is important to stress that all Directors viewed the CFF as an important and useful facility and that providing compensation for export shortfalls should remain an essential activity of the Fund, there were some differences of emphasis in respect of recent experience with the application of conditionality. Several Directors saw the practice of linking CF purchases in the upper tranche with stand-by arrangements as an essential development against the background of balance of payments problems that were related to payments difficulties over and above the existence of a temporary export shortfall. They were, however, concerned that even this link did not necessarily provide adequate protection for the revolving character of Fund resources. Frequently, CF purchases were large in relation to amounts available under accompanying stand-by arrangements, a situation which could leave the Fund exposed if the adjustment effort were not sustained as evidenced by the growth in overdue obligations to the Fund on account of CF purchases. They were thus of the view that access under the CFF should take into account factors such as the level of external indebtedness, that have a bearing on a member's ability to meet its repurchase obligations on schedule. They also considered that in certain circumstances, such as when a member's outstanding use of Fund resources exceeded a certain level or when a CF purchase was large in relation to an accompanying stand-by arrangement, CF purchases should be phased to strengthen the incentive for adjustment.

Other Directors considered that application of conditionality under the 1983 guidelines on cooperation had severely restricted use of the facility. There had been very few purchases in the lower CF tranche, owing to the practice of delaying purchases until stand-by negotiations had been completed, and purchases in the upper CF tranche without accompanying stand-by arrangements had virtually ceased. They were firmly opposed to any further restriction of access or to the introduction of phasing, which would increase the time lag between the occurrence of shortfalls and their compensation. They were also in favor of granting CF purchases when accompanying stand-by arrangements were approved in principle only; some suggested that agreement on a letter of intent could be regarded as a signal of the member's resolve to deal with its payments difficulties, thereby meeting the test of cooperation.

Part II.2 of this paper developed recommended modifications of the guidelines governing access to the CFF in an attempt to address the concerns raised by Directors. These modifications would retain the essential characteristics of the facility, namely, that, where the only source of payments difficulty was the existence of an export shortfall and the underlying balance of payments position basically sound, access under the CFF would be assured. The main innovations are as follows:

(1) Reduction in the size of the lower CF tranche to, say, 33 percent of quota, which should provide needed flexibility to make it more accessible. A country experiencing a shortfall would be able to use the CFF so long as it was making reasonable efforts to overcome its payments difficulties;

(2) a reduction in access available on approval of a stand-by arrangement to, say, 50 percent of quota;

(3) a provision for holding in reserve a certain level of access, say 33 percent of quota, for later disbursement; and

(4) in conformity with the objectives of the facility, any CF purchase would be assessed in relation to export shortfalls prevailing at the time of each purchase, but with the option of allowing the final purchase to be based on the shortfall established at the beginning of the arrangement.

A modification along these lines would be expected to generate greater use of the lower tranche (which, for example, could be purchased prior to the formal conclusion of a stand-by arrangement), a reduction in the size of CF purchases at the outset of adjustment programs, and the possibility of additional use of the CFF during the course of an adjustment program.

The cooperation requirement for use of the CFF up to [50] percent of quota would be met by the approval of a stand-by arrangement, or by the existence of policies that would qualify the member for such an arrangement. For purchases above [50] percent, the Fund would need to be assured that the member's adjustment policies remained appropriate. The question remains as to whether the cooperation requirement would be met by approval in principle of a stand-by arrangement, by the approval of an arrangement under the structural adjustment facility, or by approval of a lower tranche stand-by arrangement. Of course, these issues already arise in the application of the current guidelines.

2. Operational aspects of the CFF

a. The current formula used to calculate export shortfalls

At the March 3 Executive Board meeting, several Directors expressed concern that the current formula provided for compensation in cases that they considered to be incompatible with the intent of the CFF, namely when exports were following a declining trend or were increasing both before and after the shortfall year. There were also concerns that the formula has resulted in considerable net overcompensation of actual shortfalls. To address these concerns, the staff has explored several possible modifications of the formula including use of a deductible, setting of projection limits, and conducting calculations on the basis of past data only. The implications of conducting shortfall calculations in real terms and of limiting shortfall calculations to primary products were also examined.

The analysis reveals that the application of either a deductible to the export trend or the setting of projection limits on export earnings would alleviate some of the problems of the current formula. The backward-looking formulae examined in this paper, including mechanical extrapolations, do not overcome the preceived problems. While the appeal of calculations in real terms lies in greater synchronization of shortfalls with balance of payments need, over time there is little difference between shortfalls calculated in real and nominal terms, and there are certain drawbacks to the use of real calculations, in particular the possibility of exacerbating projection errors and of compensating for movements in import prices alone. Limiting calculations to primary products would raise a number of operational problems; while for most members it may not have much of an impact on purchases, it would be unduly restrictive for some.

The staff considers that the use of a ceiling on export projections would provide a suitable solution to the problems associated with unacceptable compensation in the case of rapid export growth. As the present formula has a built-in safeguard against compensation in the case of an accelerating decline in exports (see Part III.1) and as there have been only few instances of compensation in the presence of a steeply declining trend of exports, the staff would not recommend consideration of a modification of present practice in these situations. An upper limit of at least 20 percent on export growth in the post-shortfall period over the average of exports in the preshortfall period would seem to be appropriate for the time being. Given expectations of inflation over the medium term, any limit less than 20 percent would imply confining shortfalls to amounts that precluded taking account of any real growth of exports. In this regard, it would be important to provide for periodic revisions to this upper limit to take account of prospective inflation developments.

b. Overcompensation in successive purchases

Executive Directors were not opposed to the proposal to deal with overcompensation arising in successive CF purchases where the shortfall related to a purchase falls within the projection period of a previous purchase. This type of overcompensation could be avoided by recalculating the first shortfall on the basis of information available at the time of the second purchase and deducting from the second shortfall the amount by which the first purchase was overcompensated (Part III.2). Symmetrical treatment would be envisaged when the first purchase was found to have been undercompensated. Consideration might also be given to requiring adjustment for overcompensation in respect of a purchase that is still outstanding at the time of a subsequent purchase.

c. <u>The cereal decision</u>

At the review of the cereal decision in May 1987 the staff was asked to analyze the effects of deleting the 3-year rule from the decision and to consider the implications of establishing a separate cereal facility. The analysis in Part III.3 indicated that with appropriate quota limits either of the above modifications would involve little additional cost to the Fund. In considering a possible modification of the cereal decision, Executive Directors may wish to bear in mind the potential benefits to the member of a separate identity for the facility which would allow food-deficit countries to assess more easily the prospects of obtaining urgent relief.

3. <u>Other policy issues</u>

Two additional issues that have been included for preliminary consideration by Executive Directors are the implications of concessional use of the CFF and the issues that would be involved in allowing contingent use of the CFF in some circumstances.

a. <u>Concessional use of the CFF</u>

At the Board meeting of March 3, 1987, the Executive Director appointed by France asked the staff to examine the implication of providing CF assistance on concessional terms to countries qualifying for loans under the structural adjustment facility, with regard both to the rate of charge and the timing of repurchases. The analysis in Part IV.1 indicated that, as expected, there would be considerable benefit to an individual member purchasing under the CFF on concessional terms. Costs would have to be borne, however, by a special account that would need to be established to administer a concessional arrangement. On the assumption of annual average purchases of SDR 300 million by this group of countries and an interest subsidy of 3 percent per annum, the annual cost of the arrangement would amount to SDR 80-100 million depending on the modalities of the repayment scheme.

b. <u>Contingent use of the CFF</u>

Considerations relevant to the contingent use of Fund resources are discussed in relation to the CF mechanism (Part IV.2). Contingent use of resources could be indicated in situations in which exports deviate from projections assumed at the start of a program, due to factors outside the control of the member. The contingency mechanism could be triggered by deviations in total export receipts from program assumptions. This would provide for comparability of coverage with conventional export shortfalls and have the advantage over the alternative of commodity price triggers of being more relevant to financing need and allowing for the possibility of deviations due to volume changes for reasons beyond the member's control. A contingency mechanism based on total exports would only be triggered after review of a program.

The questions raised by a contingency mechanism include: (1) a need for assessment of the temporariness of the deviation and possible further policy measures; (2) phasing of contingent access; (3) symmetry of contingency adjustments; and (4) account to be taken of offsetting movements in other items of the balance of payments. As regards the issue of the relation between contingency use of Fund resources and the use of the CFF, various solutions are possible and these may have important implications for the functioning of either facility.