

DOCUMENT OF INTERNATIONAL MONETARY FUND AND NOT FOR PUBLIC USE

MASTER FILES  
ROOM C-130

0401

SM/88/238

October 27, 1988

To: Members of the Executive Board

From: The Secretary

Subject: Compensatory and Contingency Financing Facility (CCFF) -  
Operational Guidelines

Attached for the information of the Executive Directors are the operational guidelines to be followed by the staff in implementing the compensatory and contingency financing facility (CCFF).

Mr. Hernandez-Cata (ext. 4531), Mr. Pownall (ext. 7727) or Mr. Stuart (ext. 4579) is available to answer technical or factual questions relating to this paper.

Att: (1)

Other Distribution:  
Department Heads



INTERNATIONAL MONETARY FUND

The Compensatory and Contingency Financing Facility--  
Operational Guidelines

Prepared by the Exchange and Trade Relations and  
Research Departments

(In consultation with other departments)

Approved by Jack Boorman and A.D. Crockett

October 26, 1988

	<u>Contents</u>	<u>Page</u>
I.	Introduction	1
II.	Contingency Financing	3
	1. Arrangements eligible for contingency mechanisms	3
	2. Access	4
	3. Coverage	5
	4. Calculation of the net sum of deviations	5
	5. Threshold	7
	6. The proportion to be financed	8
	7. Calculation of Fund financing	9
	8. Specification of contingency mechanisms in the underlying arrangement	10
	9. Activation and subsequent purchases	11
	10. Symmetry	12
III.	Compensatory Financing	13
	1. Coverage	13
	2. Guidelines on cooperation	13
	3. Calculation of compensable export shortfalls	14
	4. Approval in principle	15
IV.	Relationship Between Compensatory and Contingency Financing	15
	1. Avoidance of double compensation in compensatory and contingency financing	15
	2. Choice of the application of the optional tranche	16

<u>Contents</u>	<u>Page</u>
Appendix I. Numerical Example of Calculation of Net Sum of Deviations	17
Appendix I. Tables	
1. Calculation of Net Sum of Deviation	19
Appendix II. Examples of Calculations of Fund Contingency Financing	20
Appendix II. Tables	
2. Calculation of Contingent Fund Financing With a Financing Proportion of 100 Percent	21
3. Calculation of Contingent Fund Financing With a Financing Proportion of 50 Percent	22
Appendix III. Numerical Examples of Deductions to Avoid Double Compensation Between Contingency and Compensatory Elements of the CCFE	23
Appendix III. Tables	
4. Example I of Adjustment for Double Compensation-- Contingency Purchase Followed by Compensatory Purchase, with Concurrent Years	29
5. Example II. Adjustment to Avoid Double Compensation-- Compensatory Purchase Followed by Contingency Purchase, with Partially Overlapping Years	30
6. Compensatory, Cereal and Contingency Elements: Coverage and Overlap	31

## I. Introduction

The compensatory and contingency financing facility was established by the Executive Board on August 23, 1988 (Executive Board Decision No. 8955-(88/126), EBS/88/146, Supplement 1, 8/3/88). Board views on the essential features of the new facility are summarized in the Chairman's Summing Up (88/133, 7/15/88) and supplementary information on issues raised during Executive Board discussion on the proposed decision was provided in the Staff Note on Issues Relating to Access Limits and the Calculation of Fund Financing in the Compensatory and Contingency Financing Facility, EBS/88/160 (8/5/88). 1/

The present note is intended to provide the staff with operational guidance for the implementation of the new facility. It is not intended as a full discussion of the issues and principles related to contingency financing, nor as an authoritative interpretation of the legal aspects of the new facility. It is expected that these guidelines will evolve as experience is gained with the facility. To avoid creating an unduly rigid system, it has been agreed by the Board that many detailed operational aspects of contingency financing would have to be developed with the authorities on an experimental basis at the time each associated arrangement is framed. The experience from cases, as they come before the Board, and are commented on by Directors, will be taken into account in the design of contingency mechanisms in subsequent cases. Before December 1, 1989, there will be a general review of the facility based on experience with its operations.

The new facility replaces the Compensatory Financing Facility for Export Fluctuations established in 1963, and the Facility for Financing of Fluctuations in the Cost of Cereal Imports established in 1981. Under the new facility, the basic features of compensatory financing will be preserved to ensure the timely compensation of temporary export shortfalls or excesses in cereal import costs attributable to factors largely beyond the control of the member, while at the same time

---

1/ By way of background, see "Review of the Compensatory Financing Facility," EBS/87/165 (7/28/87), Supplement 1 (7/30/87); "Review of the Compensatory Financing Facility--Further Considerations," EBS/88/20 (2/3/88); "External Contingency Mechanisms in Fund Arrangements--Preliminary Considerations," EBS/88/30 (2/12/88); Supplement 1, (2/26/88); "Modalities for the Compensatory and Contingency Financing Facility," EBS/88/100 (5/24/88); and Statements by the Staff Representative on "Transitional Provisions for Use of the Compensatory Financing Facility," 88/107 (6/14/88); "The Design of Contingency Mechanisms," 88/108 (6/15/88); "Issues Related to Modalities for the Compensatory and Contingency Financing Facility," 88/114 (6/21/88); "Understandings Related to the Compensatory and Contingency Financing Facility," 88/123 (7/1/88); and "Concerning the Essential Features of the Compensatory Financing Facility," 88/130 (7/14/88).

providing reasonable assurance of protection of the Fund's resources. In addition, contingent Fund financing will be available in concert with appropriate adjustment measures to help maintain the momentum of Fund-supported adjustment programs in the face of adverse external shocks involving factors beyond the control of the authorities.

Purchases under this facility, as under all Fund facilities, would be subject to balance of payments need and, in providing financing under this facility, due attention will be paid to the member's capacity to meet its obligations to the Fund. The contingency mechanism will incorporate symmetry in that a substantial part of the effects of favorable shocks would be set aside to strengthen the member's external position.

Cumulative access under the new facility is up to 122 percent of quota--40 percent of quota each for the export shortfall and contingency elements, 17 percent for the cereal import costs element, and a divisible tranche of 25 percent of quota that may be used, at the option of the member, for any of the three elements. As a transitional arrangement, members with more than 65 percent of quota outstanding under the compensatory financing facility at the time the new facility goes into effect will have access of up to 40 percent of quota for contingency financing. 1/

The contingency financing element of the new combined facility aims to improve the prospects that adjustment programs can be kept on track in a changing world environment. In the discussions of programs that might be supported by Fund arrangements there should be an early assessment of the exogenous factors that might affect the program, and alternative ways of securing protection will be explored. In cases where a Fund contingency mechanism would provide needed protection on terms suitable to the circumstances of the member, the authorities of member countries undertaking appropriately specified programs under

---

1/ Where the member's balance of payments difficulties do not extend beyond the effects of the export shortfall, the previous limit of 83 percent of quota for financing of export shortfalls is maintained. Similarly, where the member's balance of payments position at the time of the request is satisfactory apart from an excess in cereal import costs, the limit of 83 percent of quota for purchases on account of an excess in cereal import costs is maintained. In these cases, access to contingency financing would be limited to 22 percent of quota. Where the member's balance of payments position apart from an export shortfall or an excess in cereal import costs is satisfactory, the combined limit on purchases for export shortfalls and an excess in cereal import costs is maintained at 105 percent of quota. In this case, access to contingency financing would be limited to 17 percent of quota. See EBS/88/160, pp. 1-6 for a more complete discussion of the access limits for the new facility, including under the transitional arrangements specified in the CCFE decision.

Fund-supported arrangements will be encouraged to incorporate a contingency mechanism in those arrangements. Also, as discussed below in Section IV, the staff will discuss with the authorities the relative advantages and disadvantages of applying the optional tranche to the compensatory or contingency element.

At the same time, it should be recognized that including a contingency mechanism in Fund arrangements could complicate policy discussions and involve delays in reaching understandings on programs. If, in the view of the authorities, the external sector is sufficiently diverse as to not be particularly vulnerable to shocks (or to be able to absorb shocks relatively easily), a contingency mechanism might not be included in the arrangement. Alternatively, other means of protecting programs in the event of external shocks might be sought, for example if the composition of trade and other elements of the current account is such that it is particularly difficult to identify relevant exogenous external variables or quantify their effects.

## II. Contingency Financing

### 1. Arrangements eligible for contingency mechanisms

Upper credit tranche stand-by and extended Fund facility arrangements would be eligible for contingency mechanisms. ESAF and SAF arrangements also would be eligible, provided that at the time of activation of the mechanism the policy adaptations undertaken, together with the design of the underlying arrangement, meet the criteria for use of the Fund's general resources in the upper credit tranches. <sup>1/</sup> It would also, as a practical matter, be necessary for SAF arrangements (and, as relevant, for ESAF arrangements) to incorporate stronger provisions for monitoring, including a review to change benchmarks as necessary and to formulate them in a way that would govern the phased disbursements under the contingency mechanism. <sup>2/</sup>

Contingency mechanisms will normally be attached to arrangements at the time of Board approval of the arrangement. However, as a

---

<sup>1/</sup> The principle of uniformity of treatment precludes a differentiated overall ceiling on access to the Fund's general resources. Therefore, care is to be taken to ensure that a SAF/ESAF-eligible member would not, by virtue of its eligibility both for arrangements under those facilities and for upper credit tranche arrangements, have higher access to the Fund's general resources under the contingency mechanism than a member who is not SAF/ESAF-eligible.

<sup>2/</sup> In cases where contingency financing is associated with more than one arrangement for the same baseline period, such financing would be treated as a single contingency mechanism. This would imply, for example, that the threshold would be applied only once in the baseline period.

transitional arrangement, at the time of completion of a review of a Fund arrangement approved before November 1, 1988, a contingency mechanism could be incorporated for the remaining period of the arrangement, if such period is at least one year. 1/

## 2. Access

Access to contingency financing would be subject to the cumulative access limits for the facility. Also, access under individual arrangements generally would not exceed 70 percent of the underlying arrangement. In establishing the level of access to contingency financing in individual cases, attention should be paid to the need for an appropriate mix of adjustment and financing and the member's capacity to meet its obligations to the Fund. Furthermore, if it were expected that the member was to be a user of Fund resources over several years and contingency access of 70 percent of the underlying arrangement would exhaust cumulative contingency financing access in, say, one or two years, the case could be made for a lower level of access to contingency financing.

For multiyear arrangements, the amount of contingency financing available for the entire period of the arrangement would be divided into annual portions to ensure that the Fund's contingent support be available throughout the period of the arrangement. The access to contingency financing for the full period of the arrangement would be established when the original arrangement was approved and the access for each baseline period would be set at the time of Executive Board approval of the economic program for each baseline period.

There would be a flexible approach for the distribution of access between years. Rather than setting annual access to contingency financing in proportion to the corresponding annual access under the associated arrangement, some frontloading and carryover of access would normally be provided for. However, access to contingency financing in each year should generally not exceed 70 percent of the annual access available under the associated arrangement. For example, under a three-year arrangement of 150 percent of quota, with annual access of 50 percent of quota, total access to contingency financing for the three years would be constrained by the 40 or 65 percent of quota cumulative limit (depending on the member's choice of the use of the optional tranche); access in any one year would generally be limited to a range of 22-35 percent of quota.

---

1/ The possibility of adapting the procedures for enhanced surveillance to permit attachment of contingency mechanisms to those procedures is assessed in the paper on the review of enhanced surveillance.

### 3. Coverage

Contingency mechanisms would cover unanticipated changes in the exogenous components of key external variables such as export earnings, import prices, and interest rates. Unexpected changes in other current account transactions (such as tourist receipts and migrant workers' remittances) could also be covered where they are of particular importance, provided they result from factors that are clearly beyond the control of the authorities. Capital movements and import volumes are not covered. Natural disasters are not covered by contingency mechanisms but could give rise to assistance under the Fund's decision on emergency assistance related to natural disasters.

Coverage should include a substantial proportion of the exogenous components of a country's current account. On the other hand, coverage should not be broadened at the cost of causing major delays or raising serious difficulties in the calculations of contingent deviations. Coverage would be agreed with the authorities at the start of the program and would normally remain unchanged throughout the life of the arrangement. Subsequent changes in coverage would generally need to be justified on the basis of a change in the structure of the country's balance of payments.

Deviations in benchmark international interest rates expressed in nominal terms will be covered by the Fund, subject to a cumulative sublimit on access of 35 percent of quota (within the overall access limits of the facility). Generally, coverage would be limited to the impact of interest rate deviations on the net debt, defined as public and publicly guaranteed debt less official reserves; however, if other kinds of debt and assets are well documented, they could also be included. Such contingencies would apply only to instruments that would be affected by unforeseen changes in interest rates. The effects of exchange rate movements on interest costs would not be covered.

Parallel contingent financing from other creditors is to be pursued vigorously, but provided adequate financing of the program is assured, parallel contingent financing with commercial banks or other financing sources for advance coverage of interest rates and other contingencies would not be required. In addition, members are to be encouraged to hedge part of their debt on the basis of the several instruments available in world financial markets.

### 4. Calculation of the net sum of deviations

Contingent Fund financing and the symmetry provisions of the mechanism will be closely related to the concept of the net sum of deviations from a baseline projection. For these purposes, the net sum of deviations will be calculated as the net sum of unexpected deviations in the variables covered, relative to their respective baseline values. For example, if export prices, import prices, and interest rates were covered, the net sum of deviations would be the sum of:

unexpected deviation in export prices multiplied by the export volumes specified in the program; the deviation in import prices multiplied by the import volumes specified in the program; and the deviation in world interest rates multiplied by the level of floating rate debt projected in the program.

The contingency mechanism will establish a baseline projection for the variables covered by the mechanism for a 12-month period and in any case for no more than 18 months. For multiyear arrangements, annual baselines would be specified at the beginning of each program year. In preparing the baseline projection, the staff is to draw on the WEO forecasts for key variables, supplemented as appropriate by country-specific variables and taking into consideration the country's circumstances. The key WEO projections will be updated as necessary to provide an adequate basis for the calculations. Staff participating on missions would be expected to contact the Current Studies Division or the Commodities Division of the Research Department for the latest available information and projections prior to discussion with the authorities.

For calculating the net sum of deviations, world reference prices or interest rates (such as LIBOR) will be used, supplemented as necessary by national data; the timeliness and quality of data would be important factors in choosing the source of data. In some cases it will also be necessary to take into account available information on the timing of the effects on the balance of payments of movements in world variables. For example, long-term contracts for imports and exports and periodic payments of interest charges could influence the timing of the effects of changes in exogenous variables on the balance of payments.

In calculating the net sum of deviations, the principle of exogeneity should be adhered to. Contingent deviations should be taken into account only if they result from factors that are clearly beyond the control of the authorities. This would be relatively straightforward for export earnings from internationally traded commodities where it should be possible to limit attention to deviations in world prices (except where the country is a large exporter and affects world prices, or where changes in world prices lead to rapid domestic supply responses); it would also be relatively straightforward in the case of import prices and world interest rates. For countries with a diversified export base (typically including a substantial share of manufactured goods), the effects of unexpected movements in foreign demand would need to be considered. For tourism receipts and workers' remittances, coverage should be limited to the effects of changes in variables that are clearly exogenous, such as external demand; movements in variables related to developments that are subject to the influence

of the authorities--such as domestic interest rates and the exchange rate--should not be taken into account. 1/

For purposes of calculating the net sum of deviations and the amount of Fund contingency financing that will be made available at the time of purchases under the associated arrangements (as described in Subsection 9 below), the baseline projection of 12-18 months will also need to be calculated on a quarterly or semiannual basis (depending on the timing of purchases under the associated arrangement). These projections would need to take account of seasonal variations in variables needed for the calculation of the net sum of deviations. The baseline projection and the method for calculating the net sum of deviations from the baseline will need to be agreed with the authorities and specified in technical memoranda, with the same degree of precision that performance criteria and the means of measuring performance are defined at present. A numerical example of how the net sum of deviations and the associated Fund financing would be calculated is presented in Appendix I.

The procedures suggested in this section (and illustrated in Appendix I) are intended to ensure that contingent Fund financing is provided only for deviations resulting from changes in exogenous factors, while avoiding difficult judgements as to whether, and to what extent, a particular deviation is within the control of the authorities. However, in situations where such judgements are unavoidable (for example where a country is a dominant producer of a particular commodity), the staff could rely on the experience of the compensatory financing facility.

##### 5. Threshold

The contingency mechanism is to be triggered whenever the actual net sum of deviations (cumulated from the start of the baseline period) has exceeded a minimum threshold level. For any baseline period, the threshold need be exceeded only once. It has been agreed that in most cases a threshold of 10 percent of quota would be appropriate, but management has the flexibility of proposing a higher or lower figure for the threshold in what is expected to be the relatively few cases where this is necessary.

In evaluating the appropriateness of a threshold that differs from 10 percent of quota, consideration should be given on a case-by-case basis to the size of shocks to individual variables that could give rise to a deviation of 10 percent of quota. If such a threshold would be exceeded by relatively small shocks that could be quickly reversed, a higher threshold might be considered. Also, if the member's quota is

---

1/ See EBS/88/100, pp. 9-10. For a formal approach to the problem of estimating the exogenous component of unforeseen changes in current account variables see also EBS/88/30, Supplement 1, pp. 22-35.

relatively small in relation to GDP, it may be possible to incorporate possible policy adjustments to absorb shocks somewhat larger than 10 percent of quota before triggering a contingency mechanism.

Four percent of quota would be deducted from the applicable net sum of deviations before calculating the financing that would be made available (or before applying the symmetry procedures). The deductible would be applied only once in any given baseline period.

6. The proportion to be financed

The proportion of a contingent deviation to be financed by the Fund would be established at the outset of the arrangement with a contingency mechanism. This proportion could be changed at the request of a member at the time of activation of the mechanism, if the program was being affected by shocks of a size that made the originally decided split between financing and adjustment inappropriate. In the period immediately after an adverse shock has occurred, it would normally be expected that the Fund would finance a substantial proportion of the adverse deviation, on the grounds that policy adjustments would be slow to have their corrective effect. This proportion would be reduced in subsequent quarters as adjustment measures are phased in.

The initial proportion of a contingent deviation to be financed by the Fund and the speed with which the proportion is reduced as adjustment measures take effect would be determined on a case-by-case basis to ensure a mix of adjustment and financing appropriate to the particular circumstances of the member. Relevant factors would be similar to those underlying the determination of the adjustment/financing mix in the associated arrangement, including an assessment of the pace and impact of additional adjustment measures necessary to help keep the program on track, as well as the scope for obtaining financing from other sources. In addition, consideration would need to be given to ensuring that contingent financing was sufficient to cover a wide range of possible shocks that might affect the program. Otherwise, there would be a strong probability that the combination of contingent financing and adjustment incorporated in the particular contingency mechanism would not be sufficient to meet adverse external developments and a new program would need to be developed. These considerations imply that the proportion of contingent Fund financing would be relatively low in cases where there is scope for additional financing from other sources, and/or where a country's external position is susceptible to large shocks relative to the size of available contingent financing.

A question arises as to how to apply the declining financing proportion when shocks of different magnitudes occur at various times throughout the baseline period. A fairly straightforward approach would be to apply the relatively high financing proportion to a net deviation in the first period in which financing is provided, and the lower financing proportions to net deviations in the second period, etc.

However, this approach could lead to difficulties if the mechanism were activated on the basis of a small shock in an early period and this were followed by a large shock in a subsequent period. The financing proportion would begin to decline early in the baseline period and by the time the large shock occurs, the amount of Fund financing might be so low as to provide relatively little protection to the member's program.

An approach that would avoid this result would be to apply the lower financing proportion in a subsequent period only to that part of the net deviation to which the financing proportion had been applied in an earlier period; the higher financing proportion would be applied to that part of the net deviation over and above the earlier deviation. 1/ For example, assume that financing proportions of 80 and 50 percent are to be applied in the first and second quarters, respectively, after a shock has occurred; assume also that in the first quarter a net deviation of 20 units occurs (after application of the deductible) followed by a net deviation of 50 units in the second quarter. Financing of 16 would be provided in the first quarter; in the second quarter the lower proportion of 50 percent would be applied to 20 units of the second quarter deviation, and the higher proportion of 80 percent would be applied to the remaining 30 units, for total financing of 34 units. 2/

#### 7. Calculation of Fund financing

The Fund financing to be made available would be derived by multiplying the net sum of deviations (less the deductible of 4 percent of quota when applicable) by the proportion of the deviation to be financed. As an example, with a threshold of 10 percent of quota and a financing proportion of 80 percent of the net deviation, a shock of 14 percent of quota would trigger the mechanism, and financing of 8 percent of quota would be made available.

In calculating the net sum of deviations, only deviations in net interest costs that would involve Fund financing of 35 percent of quota or less would be taken into account. An exception would be to include adverse deviations in net interest costs of more than 35 percent of quota as required to avoid or to reduce an overall net favorable deviation.

By way of illustration, consider the case of a country facing an adverse interest rate shock equivalent to 50 percent of quota, and a favorable disturbance with respect to all other contingent variables equivalent to 45 percent of quota. (For simplicity, it is assumed that

---

1/ To the extent that the net sum of deviations declined in the second quarter, the lower financing proportion could apply to the whole deviation.

2/ This approach is used in the example of Appendix I.

100 percent of the deviation is covered by Fund financing). Since financing for the interest contingency would be subject to the limit of 35 percent of quota, the net sum of deviations under the general formula would imply a favorable contingency of 10 percent of quota. However, under the modified formula, (that is, counting the adverse interest shock up to 45 percent of quota) the aggregate net deviation would be zero and the symmetry provision would not be triggered.

This and other examples of the calculation of the Fund financing are presented in Appendix II. 1/

8. Specification of contingency mechanisms  
in the underlying arrangement

The incorporation of contingency mechanisms in Fund arrangements is to help give members confidence to take needed adjustment measures in an uncertain external environment. To achieve this goal, these mechanisms need to provide members with firm assurance of the circumstances in which contingent financing would become available; therefore the features of the contingency mechanism attached to individual Fund arrangements should be specified in advance as clearly as possible.

Given the diverse circumstances of members and the likely differences in the technical complexities of contingency mechanisms in individual cases, it may be expected that the level of detail in such prespecification would vary from country to country. In all cases it will be necessary to specify at the outset of an arrangement with a contingency mechanism, the exogenous factors to be covered, the corresponding baseline projections, the size of the threshold, the method of calculating contingent deviations, and the proportion of given contingencies that could be financed.

A request for an arrangement that incorporates a contingency mechanism should be accompanied by an indication of the nature of the appropriate policy responses that would be forthcoming in the event of adverse shocks. However, it probably would not be possible to formulate all the details of an adequate contingent policy plan. Thus, the precise details of the policy measures to be implemented and their timing normally would be finalized at the time of activation when the size and nature of the deviation, and the more general economic conditions prevailing at the time the contingencies occurred, were known. A review at that stage would be helpful in assessing the situation and agreeing on an appropriate policy response.

At a minimum, the following would be specified when the Fund approves an arrangement with a contingency mechanism:

---

1/ For a more complete discussion of the calculation of Fund financing, see EBS/88/160, pp. 6-11.

- (1) the variables to be covered by the contingency mechanism;
- (2) the maximum amount of external contingency purchases that may be permitted during the period of the arrangement;
- (3) the minimum threshold that must be exceeded by the net sum of deviations before external contingency purchases may be permitted;
- (4) the proportion of the applicable net sum of deviations that will be financed, subject to possible changes that may be required at the time of activation of the contingency mechanism to ensure the viability of the member's program supported by the arrangement; and
- (5) the maximum amount by which the associated arrangement could be reduced in case of favorable external contingent deviations, which would normally be the same as the amount of financing to be made available in the event of unfavorable shocks.

#### 9. Activation and subsequent purchases

Contingency mechanisms will generally be activated by a review by the Executive Board. Once it was clear that the minimum threshold was being exceeded, a mission could take place (it is expected that this generally would coincide with the mid-term review of the program) and the necessary policy adaptations could be agreed with the authorities. It would be desirable to make Fund financing available to the member on a timely basis. International variables--such as commodity prices and interest rates--often affect the balance of payments with a lag; therefore, it should be possible in many cases to complete the review process and provide financing as the effects of the adverse shocks on the balance of payments are being felt.

In exceptional cases where the link between additional financing needs and the relevant contingencies and the policy actions that would need to be phased in could be specified in advance with sufficient precision, a contingency mechanism with prespecified policy adjustments and adjustable performance criteria could be agreed. Once approved with the original arrangement, this mechanism could be activated without further policy discussions with the authorities or a review by the Executive Board. In such cases, the staff assessment could be expedited and, after the Board has received adequate advance notification, disbursements would be made.

Purchases under the contingency mechanism would take place at the time of purchases under the associated arrangement and, after the deductible had been applied, would be in proportion to the net sum of deviations. Purchases under the contingency mechanism would be subject to compliance with the performance criteria of the underlying arrangement, adjusted to take account of the effects of the contingencies. Once the contingency mechanism has been activated, subsequent purchases under the mechanism would be made available in declining proportion to the net sum of deviations measured for each

subsequent period, upon observance of performance criteria, adjusted as appropriate.

For programs with six-monthly monitoring under the associated arrangement, contingent financing purchases would normally also be on a six-monthly basis; if more frequent purchases were considered desirable, it would be necessary to modify monitoring procedures appropriately. As noted earlier, benchmarks under SAF arrangements would need to be formulated in a way that would govern quarterly or semiannual contingency financing purchases.

#### 10. Symmetry

In the event of unforeseen favorable developments, application of the concept of symmetry would imply conserving a substantial part of the unanticipated gains to strengthen the member's external position. The crossing of the threshold in a favorable direction should trigger a review mission and a discussion with the authorities of adjustments to the underlying program.

If the country's reserve position is low, this could take the form of adding a proportion (generally the same proportion that would have been applied for determining financing in the event of an unfavorable deviation) of the favorable deviation (less the deductible) to reserves. If reserves were at an adequate level, favorable deviations would be reflected in a reduction of purchases under the basic arrangement or, at the option of the member, a repurchase of earlier contingency purchases. In evaluating the adequacy of a country's reserve level, consideration could be given to the relative volatility of external receipts and payments, the level of the country's short-term external indebtedness and the country's historical experience in reserve management. 1/

---

1/ Adjustments may be required to avoid application of the symmetry provisions in situations where this would clearly not be justified by the country's actual balance of payments position. This could, for example, be the case when world market prices rise concurrently with a reduction in export volume in an individual country. A mechanical application of an export price contingency without regard to an actually reduced export volume would produce an illusion of a favorable balance of payments position and trigger symmetry provisions. When application of the contingencies would lead to a result that would be manifestly unreasonable, the Executive Board should be requested to approve the necessary adjustments.

### III. Compensatory Financing

#### 1. Coverage

Compensatory financing will continue to be provided for export shortfalls judged to be temporary and largely beyond the control of the member. Also, there has been no change in the coverage of the compensatory financing--that is, the possible inclusion, at the option of the member, of receipts from certain services and outlays for cereal imports as well as export earnings. The definition of export shortfalls, except for minor refinements, has remained unchanged.

#### 2. Guidelines on cooperation

In cases where the member's balance of payments difficulties do not extend beyond the effects of a temporary export shortfall, the member would continue to qualify for an outright purchase of 83 percent of quota.

For a member experiencing balance of payments difficulties that go beyond the export shortfall, except as provided for below, a request for a purchase of up to the full compensatory financing element of 40 percent of quota would be met immediately if the export shortfall were temporary, largely attributable to circumstances beyond the member's control and if the Fund were satisfied that the member was willing to cooperate with the Fund in an effort to find an appropriate solution to its balance of payments problems. The optional tranche would become available upon either approval or review of a program supported by the use of Fund resources, or in the absence of such a program, upon the Fund being satisfied that equivalent requirements had been met.

If there were substantial indications that the member's record of cooperation in recent periods had been unsatisfactory, or that its existing policies were seriously deficient in relation to the size of its existing or prospective payments imbalances, prior actions that would provide "reasonable assurance" that policies corrective of the member's balance of payments problems would be adopted would continue to be expected. In these circumstances access to the compensatory financing element would be in two tranches of 20 percent of quota each. The first would be disbursed as soon as appropriate prior actions are taken. Disbursement of the second tranche would take place according to the 1983 guidelines and practices relating to the upper tranche of compensatory financing. It would generally be expected that in these cases the optional tranche would become available upon program review.

As regards access for excesses in the cost of cereal imports, where the Fund considers that the member's policies in dealing with its

balance of payments difficulties are not seriously deficient and that the member's record of cooperation with the Fund in the recent past has been satisfactory, financing will be available up to 17 percent of quota if the Fund is satisfied that the member will cooperate with the Fund to find appropriate solutions for its balance of payments difficulties and up to 42 percent of quota upon either approval or review of a program supported by the use of Fund resources or if equivalent requirements have been met. Where the member's policies are seen as seriously deficient or the member's record of cooperation with the Fund in the recent past has not been satisfactory, purchases on account of an excess in cereal import costs will be permitted up to 17 percent of quota as soon as appropriate prior actions are adopted, and purchases up to 42 percent of quota would be permitted upon completion of a review of a Fund arrangement, or if the member's policies in the recent past, as well as its current and prospective policies, are such as would meet the criteria for the use of the Fund's general resources in the upper credit tranche.

The provisions linking compensatory financing disbursements to developments with respect to adjustment represent an attempt to clarify the conditions for access to a first tranche of compensatory financing. Whereas in recent years some countries were likely to have to wait until program negotiations were completed in order to make a single drawing for maximum access to compensatory financing, it should now be possible to obtain part of the access at an earlier stage provided that policies in place provide reasonable assurances that the balance of payments problems are being addressed. The early drawing procedure, which is designed to facilitate timely compensation by permitting use of partly estimated data for the shortfall year, has been maintained.

In assessing the member's record of cooperation with the Fund, particular consideration would be given to the following four factors.

- (1) The member's willingness to undertake adjustment programs and performance under Fund arrangements in the past 2-3 years, including the member's record with respect to the meeting of performance criteria and the prompt completion of scheduled reviews;
- (2) The member's record with respect to overdue obligations to the Fund;
- (3) The extent to which consultations have taken place on a regular schedule; and
- (4) The extent to which the member has maintained nonapproved exchange restrictions.

### 3. Calculation of compensable export shortfalls

There would be an upper limit on the projections of export earnings to be used in the calculations of export shortfalls. The limit on the projected growth of the average level of exports in the two post-

shortfall years over the average level of exports in the two pre-shortfall years would be set at 20 percent. Periodically, this limit would be reviewed, and if necessary revised, in the light of developments with respect to world inflation.

A compensatory financing request based on a shortfall falling within or overlapping with the two-year projection period of an earlier purchase would be adjusted by the amount by which the earlier purchase may have been overcompensated. Similarly, any undercompensation of the first purchase would be added to the subsequent shortfall in determining the size of the second purchase.

4. Approval in principle

When compensatory financing requests are accompanied by Fund arrangements approved in principle, purchase of the full compensatory financing element (40 percent of quota) would be allowed for members with a good record of cooperation, and purchase of the first tranche (20 percent of quota) of the compensatory financing element would be allowed for other members.

IV. Relationship Between Compensatory and Contingency Financing

1. Avoidance of double compensation in compensatory and contingency financing

In calculating purchases under the new facility, the staff will apply procedures to avoid double compensation between the compensatory and contingency financing elements of the facility. Under the procedures, a member with a contingency mechanism that includes export earnings as a variable should be able to be compensated under both the contingency and compensatory financing elements of the facility, provided the amounts compensated under one component are deducted from the amounts to be compensated under the other. As the coverage and methods of calculation differ under the two components, the aim should be to deduct only for those items which are included in both calculations, and which contribute positively to both purchases.

In developing a method to avoid double compensation between the contingency and compensatory components, the general approach would be to deduct from a second shortfall/net deviation the net contribution of the components of a first purchase that overlap with the second shortfall/deviation. For purposes of the calculation, the shortfalls and deviations would be disaggregated into price and volume movements for individual commodities. To account for differences in the period of an export shortfall and that covered by a contingency mechanism, the deduction would also be adjusted for overlapping months; finally, the adjusted shortfall/deviation would form the basis for determining the second amount of compensation. Numerical examples and suggested steps

on how double compensation would be avoided are presented in Appendix III.

2. Choice of the application of the optional tranche

An indication of how the optional tranche would be allocated as between contingency and compensatory financing should be made at the time the basic arrangement with the contingency mechanism is approved. However, the member will be free to change the allocation until the time the contingency mechanism is activated. This flexibility may require some last minute changes in the specific features of the contingency mechanism if, in the interim, part of the optional tranche has been used to make a compensatory financing purchase and the amount of available contingency financing is less than originally thought.

At the time an arrangement with a possible contingency mechanism is discussed with the authorities, and again at the time of possible activation of a contingency mechanism, the staff will discuss with member authorities the factors to be taken into account in choosing between the compensatory and contingency elements. As part of this discussion the staff will indicate that the coverage of the contingency element is considerably broader than the compensatory element, and contingency financing generally should be made available on a more timely basis, thus offering relatively greater protection to the member's program. At the same time, the staff will note that the compensatory element, unlike the contingency element, does not involve thresholds, deductibles, or symmetry.

The staff will also assess with the authorities the potential access under the compensatory and contingency elements of the facility in the light of recent and prospective export developments. If a decline in exports, of a nature that was likely to result in an export shortfall under the compensatory element of the facility, were envisaged in the baseline projections of the program, the authorities might be well advised to reserve the optional tranche for possible compensatory financing. On the other hand, if a sizeable increase in exports were envisaged, allocation of the optional tranche to possible contingency financing might be preferred.

Numerical Example of Calculation  
of Net Sum of Deviations

This appendix presents a numerical example of how to calculate the net sum of deviations and the associated Fund financing. Assume a contingency mechanism that covers the price of oil imports, the price of copper exports, and net interest payments on floating rate debt. The following are the baseline projections. 1/

Price of oil imports	\$15/barrel, on volume of 90 million barrels per quarter; changes in world prices affect the balance of payments with a three-month lag.
Price of copper exports	\$1.10 per pound, on volume of 500 million pounds per quarter; changes in world prices affect the balance of payments with a two-month lag.
Six-month LIBOR	8 percent on floating rate debt, net of official holdings of foreign exchange, of US\$20 billion; changes in world interest rates affect the balance of payments with a six-month lag.

The proportion of the deviation to be financed is assumed to be 80 percent in the quarter in which the threshold is first exceeded, declining to 50 percent, 30 percent, and zero in subsequent quarters.

The price of oil rises unexpectedly to \$20 per barrel at the end of February; copper prices rise to \$1.30 per pound at the end of February and to \$1.40 per pound at the end of March, and six-month LIBOR rises to 10 percent at the end of January. The oil price increase would begin to affect the balance of payments at the end of May, the first rise in copper prices would be felt at the end of April, and the second rise at the end of May. The rise in world interest rates would affect the balance of payments at the end of July. In the light of these considerations the net sum of deviations in each quarter would be as shown in Table 1.

---

1/ In this example, the net sum of deviations is calculated by multiplying the deviation from the baseline of the prices of certain exports and imports by the volume of exports and imports projected in the program. The calculation could also be made by multiplying the deviation from the baseline of prices in percentage terms by the corresponding values of exports and imports envisaged in the program. This example assumes there is no seasonality in the variables used in the calculation of the net sum of deviations. As noted in Section II.4, any seasonality in these variables would need to be taken into account.

Assume that the threshold was equivalent to US\$400 million, with a deductible of US\$160 million. The threshold would not be exceeded until the third quarter; the net deviation for the second and third quarter taken together would be reduced by the deductible of US\$160 million to yield US\$274 million, and financing of US\$219 million (80 percent of the deviation) would be provided. In the fourth quarter, applying the approach suggested in the text (Section II.6) the lower financing proportion of 50 percent would be applied to the first US\$274 million (the net deviation to which the financing proportion was applied in the third quarter of the year), and the proportion of 80 percent would be applied to the remaining "new" net deviation of US\$126 million; total financing in the fourth quarter of the year would thus amount to US\$238 million.

Table 1. Calculation of Net Sum of Deviations  
(In millions of U.S. dollars)

	Deviations
<u>Second quarter</u>	
Oil price \$5 per barrel x 90 million barrels quarterly rate, for one month	-150
Copper price \$0.20 per pound x 500 million pounds quarterly rate, for one month	33
Copper price \$0.30 per pound x 500 million pounds quarterly rate, for one month	<u>50</u>
Net Sum	-67
<u>Third quarter</u>	
Oil price \$5 per barrel x 90 million barrels quarterly rate, for three months	-450
Copper price \$0.30 per pound x 500 million pounds quarterly rate, for three months	150
Interest rates 2 percentage points at annual rate on US\$20 billion, for two months	<u>-67</u>
Net Sum	-367
<u>Fourth quarter</u>	
Oil price \$5 per barrel x 90 million barrels quarterly rate, for three months	-450
Copper price \$0.30 per pound x 500 million pounds quarterly rate, for three months	150
Interest rates 2 percentage points at annual rate, on US\$20 billion for three months	<u>-100</u>
Net Sum	-400

Examples of Calculations of Fund Contingency Financing

This appendix presents examples of calculations of contingency Fund financing, including when the sublimit of 35 percent of quota on Fund financing for deviations in interest costs applies.

Example I is the general case where the sublimit of 35 percent of quota does not apply. Unfavorable deviations in net interest costs and in other variables, both equal to 20 percent of quota, occur; the threshold is surpassed and the deductible of 4 percent of quota is applied. In the case of a financing proportion of 100 percent, Fund financing of 36 percent of quota is provided; the deductible of 4 percent of quota is apportioned equally between net interest costs and other variables, given that the deviation in net interest costs is equal to the deviations in other variables. In the case of the financing proportion of 50 percent, financing of 18 percent is provided. Again, the deductible of 4 percent of quota is attributed equally to each component before applying the financing proportion of 50 percent; equal financing of 9 percent of quota would be attributed to deviations in net interest costs and other variables.

In Example II, deviations in net interest costs exceed the level that could be financed by the Fund given the 35 percent of quota sublimit, even in the case where the financing proportion is 50 percent. Both in the case of a financing proportion of 100 percent and one of 50 percent, the net sum of deviations taken into account in calculating the financing is chosen so that, after the deductible of 4 percent of quota is applied, Fund contingent financing would amount to 35 percent of quota; this is because the sublimit of 35 percent of quota is meant to apply to Fund financing, not to the deviations in net interest costs that are covered by the contingency mechanism.

In Example III, in addition to a large adverse deviation in net interest costs that results in application of the 35 percent of quota sublimit, deviations in other variables equivalent to 20 percent of quota occur. In this case, the deductible of 4 percent of quota is applied to deviations in net interest costs (on the principle that the deviations in net interest costs over and above the 35 percent of quota sublimit have already used margins built in the program, and the financing of net interest deviations should not be reduced further by applying part of the deductible to deviations in net interest costs).

Example IV, with a financing proportion of 100 percent, presents the case described in the text (Section II.7) where net interest cost deviations in excess of 35 percent are taken into account to avoid triggering symmetry provisions when an unfavorable net sum of deviations would have occurred in the absence of the 35 percent of quota financing sublimit. Example V, with a financing proportion of 100 percent of quota, demonstrates the case where unfavorable net interest deviations in excess of 35 percent of quota are taken into account to reduce a favorable net sum of deviations.

Table 2. Calculation of Contingent Fund Financing With  
a Financing Proportion of 100 Percent

(In percent of quota) 1/

	<u>Example</u>				
	I	II	III	IV	V
A. Deviations in					
1. Net interest costs	-20	-90	-90	-50	-45
2. Other variables	-20	--	-20	45	55
B. Deviations in net interest costs after application of 35 per- cent sublimit on financing of deviations in net interest costs <u>2/</u>	-20	-39	-39	-45	-45
C. (= A.2 + B)					
<u>Applicable net sum of deviations</u>	<u>-40</u>	<u>-39</u>	<u>-59</u>	<u>0</u>	<u>10</u>
<u>Net sum of deviations after application of the deductible of 4 percent of quota</u>	<u>-36</u>	<u>-35</u>	<u>-55</u>	<u>--</u>	<u>6</u>
<u>Fund financing</u>	<u>-36</u>	<u>-35</u>	<u>-55</u>	<u>-- 3/</u>	<u>-- 3/</u>
Attributable to deviations in:					
Net interest costs	-18	-35	-35	--	--
Other variables	-18	--	-20	--	--

1/ Negative sign indicates adverse deviation and purchase from the Fund; positive sign indicates favorable deviation leading to possible addition to reserves, foregoing of purchases under the associated arrangement, or early repurchases of previous contingency purchases.

2/ Deviation in net interest costs that would yield no more than 35 percent of quota after application of the deductible of 4 percent of quota and the financing proportion; the exceptions are examples IV and V, where a higher level is chosen to avoid or to reduce a favorable net sum of deviations.

3/ Threshold of 10 percent of quota would not be exceeded.

Table 3. Calculation of Contingent Fund Financing With a Financing Proportion of 50 Percent

(In percent of quota) <sup>1/</sup>

	Example				
	I	II	III	IV	V
A. Deviations in					
1. Net interest costs	-20	-90	-90	-50	-45
2. Other variables	-20	--	-20	45	55
B. Deviations in net interest costs after application of 35 percent sublimit on financing of deviations in net interest costs <sup>2/</sup>	-20	-74	-74	-50	-45
C. (= A.2 + B)					
<u>Applicable net sum of deviations</u>	<u>-40</u>	<u>-74</u>	<u>-94</u>	<u>-5</u>	<u>10</u>
<u>Net sum of deviations after application of deductible of 4 percent of quota</u>	<u>-36</u>	<u>-70</u>	<u>-90</u>	<u>-1</u>	<u>6</u>
<u>Fund financing</u>	<u>-18</u>	<u>-35</u>	<u>-45</u>	<u>-- 3/</u>	<u>-- 3/</u>
Attributable to deviations in:					
Net interest costs	-9	-35	-35	--	--
Other variables	-9	--	-10	--	--

<sup>1/</sup> Negative sign indicates adverse deviation and purchase from the Fund; positive sign indicates favorable deviation leading to possible addition to reserves, foregoing of purchases under the associated arrangement, or early repurchases of contingency purchases.

<sup>2/</sup> Deviations in net interest costs that would yield no more than 35 percent of quota after application of the deductible of 4 percent of quota and the financing proportion.

<sup>3/</sup> Threshold of 10 percent of quota would not be exceeded.

Numerical Examples of Deductions to Avoid Double Compensation  
Between Contingency and Compensatory Elements of the CCFE

Double compensation in overlapping compensatory and contingency purchases would be avoided by deducting the net contributions of a first purchase from the contribution that these overlapping items made to a second shortfall/deviation. <sup>1/</sup> Two examples of this method of avoiding double compensation are provided below, followed by a listing of steps in the methodology.

Example I where a contingency purchase precedes a compensatory purchase

In the first example (Table 4) the contingency purchase precedes the compensatory purchase, and the contingency and shortfall years overlap completely. The contingency purchase is assumed to take place during the second half of the program year  $X_0$ , based on estimated data for that part of the year (Column 3). A compensatory purchase, in respect of a shortfall based on actual data for year  $X_0$ , is assumed to take place in the middle of the following year. <sup>2/</sup> Double compensation is avoided by deducting from the export shortfall the net contribution to the contingency purchase of those items also included in the

---

<sup>1/</sup> There are two other general approaches which could be used to avoid double compensation. The first would be to deduct the entire first purchase amount from the second shortfall/deviation. However, this could lead to the inclusion in the deduction for double compensation of certain elements (such as the financing of interest cost deviations in the case of a first contingency purchase, or financing of volume or value shortfalls in the case of a first compensatory purchase) which were not included in the calculation of the second purchase. The second method would be to eliminate the value of a given commodity included in the calculation of a first purchase from the calculation of a second purchase. This method has two possible disadvantages: (i) it may exclude 100 percent of the commodity's value when only part of the shortfall/deviation in the commodity was compensated (e.g., when the shortfall/deviation was constrained by deductions, financing ratios or access limits); and (ii) it may exclude the contribution of an underlying component (e.g., a volume shortfall) which was not included in the calculation of the second purchase, or was in excess in the second purchase.

<sup>2/</sup> In this example the final data for the year  $X_0$ , which are available at the time the export shortfall is calculated, are assumed to be the same as the estimated data underlying the contingency purchase; there is thus no need to recalculate the deduction for double compensation. However, if actual data had differed from the estimates, a final calculation of the contingency deviation would be necessary. If this revealed that the contingency purchase was larger than would have taken place on the basis of actual data, or that the amount deducted for double compensation was insufficient, the member would be expected to make a prompt repurchase of the difference.

shortfall calculation. The deduction does not, however, reduce the contributions to the shortfall made by items excluded from the contingency calculation (non-overlapping items).

The deduction to avoid double compensation is determined after comparing the contribution that overlapping items (in this case the price movements for Commodities A and B) make to the contingency purchase, and to the subsequent export shortfall. In the example, the contingency purchase is triggered by a net deviation of SDR 49 million, (which is 49 percent of the member's quota of SDR 100 million, Column 3) based on estimated deviations in prices of Commodities A and B (SDR 39 million, or 79 percent of the total net deviation) and interest costs (SDR 10 million, or 21 percent of the total net deviation). After applying the deductible of 4 percent of quota and with a financing proportion of 50 percent, the contingency purchase is calculated to be SDR 22.3 million. The contingency purchase is then prorated by the share of the contribution of overlapping items in the net sum of deviations (79 percent, or SDR 17.7 million). Disaggregating the contingency purchase into overlapping and non-overlapping items ensures that the deduction to avoid double compensation does not include items covered in the first purchase that are in fact not included in the second purchase (in this example the deviation in interest costs).

On the basis of final data for year  $X_0$ , an export shortfall of SDR 31 million is calculated. A disaggregation of the shortfall into its basic components reveals that the shortfall results from shortfalls in export earnings of Commodities A, B, and C, amounting to SDR 13.8, 17.3, and -1.6 (an excess) million, respectively. As shortfall calculations are based on the deviation in exports from their geometric mean, the arithmetic sum of the component shortfalls does not equal the aggregate shortfall. 1/ The component shortfalls are prorated to sum to the aggregate shortfall (Column 7), 2/ and the percentage contribution of volume and unit value shortfalls to the value shortfall of each commodity is then calculated (Columns 8 to 11). 3/ The relative shares of these component shortfalls to their respective value shortfalls are used to calculate the contribution that movements in each component make to the total shortfall (Column 10). (For example, the adjusted shortfall for Commodity A (SDR 14.5 million) contributed 47 percent of

---

1/ That is, the arithmetic sum of component value shortfalls does not equal the total value shortfall, and the sum of volume and unit value shortfalls for a particular component need not equal its value shortfall.

2/ The components of the shortfall are multiplied by the ratio of the total shortfall (SDR 31 million) to the arithmetic sum of the components of the shortfall (SDR 29.5 million).

3/ In this example, as is often the case in practice, a breakdown into volume and unit value for one of the commodities (Commodity C) is assumed to be unavailable.

the shortfall, with price and volume movements contributing -11 and 58 percent respectively.)

The comparison reveals that items which were included in both calculations (unit value movements of Commodities A and B) contributed SDR 17.7 million to the contingency purchase, while they contributed SDR 14.9 million to the compensatory shortfall. As their contribution to the contingency purchase exceeds their contribution to the shortfall, only SDR 14.9 million is deducted from the export shortfall to determine the compensatory purchase. The deduction of the smaller of the two overlapping amounts ensures that contributions to a second purchase from non-overlapping items (the shortfall in the volume of Commodity A) are not lowered. <sup>1/</sup> In this case there is complete overlapping of periods, and no adjustment to the deduction on this account is required.

Example II where a compensatory purchase precedes a contingency purchase

In the second example (Table 5), the compensatory purchase precedes the contingency purchase, and double compensation is avoided by deducting from the contingency deviation the net positive overlapping contributions to the compensatory purchase, up to the amount that these items contributed to the deviation. This example assumes that the request for compensatory financing occurs at the end of the shortfall year  $X_0$ , and that the request is approved by the Executive Board concurrently with a stand-by arrangement for the twelve months beginning  $Q_4 X_0$ . The shortfall year and the stand-by arrangement, therefore, overlap by three months.

Based on actual data through the middle of the shortfall year, six months of estimated data and forecasts for the two post-shortfall years, a shortfall of SDR 31.0 million is estimated for total merchandise exports. As in the previous example, the shortfall is disaggregated into its basic components (Columns 6 and 8), prorating to ensure that the shortfalls are additive (Columns 7 and 9 to 11); this allows for a comparison of the components of the shortfall with those of the contingency. In this example it is assumed that the compensatory purchase is constrained by access limits to SDR 10 million. Based on

---

<sup>1/</sup> An extension of this principal occurs when the net contribution of overlapping elements to the compensatory shortfall, or the contingency purchase, or both, is negative. In these cases no deduction for overcompensation would be made. As an example suppose that merchandise exports consisted only of Commodities A and C (Table 4). The deviation in the price of Commodity A contributed positively to the contingency purchase, but the same deviation, and the associated 5-year movement in price, resulted in an excess in the price of A (-7.2 percent) which lowered the shortfall. This occurred because the formula for computing deviations and shortfalls differ. Since the shortfall would be entirely the result of a shortfall in the volume of A, no deduction from the calculated export shortfall would be made.

the disaggregation of the shortfall, 48 percent (Columns 3 and 11) or SDR 4.8 million of the compensatory purchase is found to be due to export variables which overlap with the contingency purchase (price movements for Commodities A and B).

The contingency is triggered by adverse deviations in international prices for Commodities A and B and changes in LIBOR; based on these movements, a net deviation of SDR 9.4 million is estimated for the 12 months ended Q3 X<sub>1</sub>. The deviation is due to adverse movements in the price of Commodity A (SDR 16.4 million, or 175 percent of the net deviation) and interest costs (SDR 3.0 million, or 32 percent of the net deviation) which are offset by a favorable outturn in the price of Commodity B (SDR -10.0, or -106 percent of the net deviation (Columns 3 and 10)). In this case, therefore, 68 percent of the net deviation, or SDR 6.4 million, is due to the net deviation in the prices of commodities A and B, the overlapping items (Column 11); 1/ this amount exceeds the contribution of these items to the compensatory purchase.

To avoid double compensation the contribution of overlapping items to the compensatory purchase (SDR 4.8 million) is deducted from the contingency deviation after adjustment for the partial overlap of the shortfall year and the period of the arrangement (3 out of 12 months, Column 3). 2/ This adjustment is made before the deductible, financing proportion, and contingency access limits are applied.

Both the compensatory and contingency purchases in the second example are based on estimated data. A final calculation of the shortfall/deviation would subsequently need to be performed, which may involve the possibility of an early repurchase. 3/

The examples outlined above suggest the following approach, which may need to be modified in the light of evolving experience with the facility:

---

1/ In this example 68 percent of the contingency deviation was due to overlapping items. An amount greater than 100 percent, however, could also have resulted. Had the contribution from interest rates been SDR -3.0 million, for example, then the net deviation would have been SDR 3.4 million, and export items would have contributed 188 percent of the deviation ( $6.4 \times 100 / 3.4$ ). In cases where the contribution from overlapping items is greater than 100 percent, the entire shortfall/deviation or purchase (100 percent) will be deemed to have been due to the overlapping items.

2/ Had the contribution to the compensatory purchase exceeded the contribution to the contingency deviation, however, the latter amount, after adjusting for overlapping years, would have been deducted.

3/ In this example it was assumed that the calculation of the contingency purchase occurred before the compensatory data were final, so that the deduction to avoid double compensation was performed using estimated data supporting the compensatory request.

a. Prorate shortfall and deviation into basic components

Export shortfalls and cereal excesses would be disaggregated by commodity, with a further disaggregation into volume and unit value components (based on their relative sizes compared to the value shortfalls). Prorating would be performed to ensure that components (calculated by the geometric formula) sum to the appropriate totals. Net contingency deviations, measured in SDRs, would likewise be disaggregated into price, volume (where applicable), and interest components. Components would be expressed as percentages of the total shortfall/deviation.

b. Sum the contributions to the shortfall/deviation for items which are included in both calculations

If the sum of the contributions to the compensatory shortfall, or the contingency deviation, or both is negative, then no deduction to avoid double compensation is necessary. Items which are covered by the compensatory, contingency, and cereal elements of the facility (including services), along with a description of items which may overlap, are presented in Table 6.

c. Calculate the contributions of overlapping items to the first purchase, and the second shortfall/deviation

The disaggregation of the first purchase would be based on respective shares of components in the shortfall/deviation from (b).

d. Adjust the smaller of the two from (c) for overlapping months

This becomes the deductible for double compensation.

e. Subtract the amount determined in (d) from the subsequent deviation/shortfall

In the case where a compensatory purchase follows a contingency purchase, the amount would be subtracted from the export shortfall after taking account of the constraint on export growth in the post-shortfall years. In the case where a contingency purchase follows a compensatory purchase, the amount would be subtracted from the net sum of deviations before applying the deductible of 4 percent of quota and the financing ratio.

f. Determine second compensation amount

For a contingency or compensatory purchase, the amount of compensation would be calculated after applying access limits under each section of the decision.

- g. Repeat steps a-f, for the final calculation of contingency/compensatory purchases

Where original purchases were based on estimated data, the above steps would be repeated on the basis of final data.

Table 4. Example I: Adjustment for Double Compensation--Contingency Purchase Followed by Compensatory Purchase, with Concurrent Years  
(In millions of SDRs unless otherwise specified)

	Years					Shortfall		Shortfall	Prorated	Prorated	Overlapping
	X <sub>-2</sub> (1)	X <sub>-1</sub> (2)	X <sub>0</sub> (3)	X <sub>1</sub> (4)	X <sub>2</sub> (5)	Unadjusted (6)	Prorated 1/ (7)	(In percent of level in shortfall year) (8)	rated 1/ (9)	(In percent of total deviation/ shortfall) (10)	contribu- tions 2/ only (11)
<b>I. Contingency purchase</b>											
1. Baseline (program year X <sub>0</sub> )											
Export value of Commodity A			68.0								
Volume (million tons)			17.0								
Unit value (SDR/ton)			4.0								
Export value of Commodity B			100.0								
Volume (million tons)			25								
Unit value (SDR/ton)			4.0								
Interest costs			50.0								
2. Financing ratio: 50% of net BOP deviation											
3. Contingency purchase triggered at mid-year X <sub>0</sub>											
Estimated values											
Export Commodity A			54.4								
Volume (million tons)			17.0								
Unit value (SDR/ton)			3.2								
Export Commodity B			75.0								
Volume (million tons)			25.0								
Unit value (SDR/ton)			3.0								
Interest costs			60.0								
Net deviation 3/			48.6							100.0	79.4
Export Commodity A			13.6							28.0	28.0
Export Commodity B			25.0							51.4	51.4
Interest			10.0							20.6	
4. Contingency purchase in Q3 X <sub>0</sub>											
Quota: 100											
Net deviation			48.6								
Purchase ((48.6-4.0) ÷ .5)			22.3								
Of which: Due to overlap items A and B			17.7								
<b>II. Compensatory purchase</b>											
1. Total exports	200	150	130	150	185	31.0	31.0			100.0	48.0
A	100	50	48	50	75	13.8	14.5			46.8	
B	80	80	60	80	90	17.3	18.2			58.7	
C	20	20	22	20	20	-1.6	-1.7			-5.5	
Sum of A, B, and C						29.5	31.0			100.0	
2. Commodity components											
A											
Volume (million tons)	33.3	12.5	15	25	25			38.7	35.3	57.5	
Unit value (SDR/ton)	3	4	3.2	2	3			-7.2	-6.6	-10.7	
Value	100	50	48	50	75			28.7	28.7	46.8	
B											
Volume (million tons)	20	20	20	20	20			0.0	0.0	0.0	
Unit value (SDR/ton)	4	4	3	4	4.5			28.9	28.9	58.7	58.7
Value	80	80	60	80	90			28.9	28.9	58.7	
3. Compensatory purchase at mid-year X <sub>1</sub>											
Shortfall			31.0								
Of which: Due to overlap items A and B			14.9								
Adjustment for double compensation (minimum (17.7, 14.9) * 12/12) 4/			14.9								
Adjusted shortfall (31-14.9)			16.1								
Purchase (constrained by access)			10.0								

1/ Unadjusted value shortfalls prorated by ratio of sum of shortfalls (SDR 31.0 million) to total shortfall (SDR 29.5 million). Volume and unit value shortfalls prorated by ratio of sum of volume and unit value shortfall (Commodity A: 31.5 percent) to adjusted value shortfall (Commodity A: 28.7 percent).  
 2/ Adjusted value shortfalls as percent of total shortfall. Components prorated by ratio of value (Commodity A: 46.8 percent) to sum of volume and unit value components (Commodity A: 28.7 percent).  
 3/ A positive deviation represents an adverse movement in a balance of payments item.  
 4/ Adjustment for full overlap (12 months) between program and shortfall year.

Table 3. Example II: Adjustment for Double Compensation--Compensatory Purchase Followed by Contingency Purchase, with Partially Overlapping Years  
(In millions of SDRs unless otherwise specified)

	Years					Shortfall		Shortfall (In percent of level in shortfall year)		Prorated deviation/shortfall (In percent of total deviation/shortfall)	
	$X_{-2}$	$X_{-1}$	$X_0$	$X_1$	$X_2$	Unadjusted	Prorated <sup>1/</sup>	Unadjusted	Pro-rated <sup>1/</sup>	All contri- butions <sup>2/</sup>	Overlapping contribu- tions only
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
<b>I. Compensatory purchase</b>											
1. Total exports (6 months of $X_0$ estimated)	200	150	130	150	165	31.0	31.0			100.0	46.0
A	100	50	48	50	75	13.8	14.5			46.8	
B	80	80	60	80	80	17.3	18.2			58.7	
C	20	20	22	20	20	-1.6	-1.7			-5.5	
Sum of A, B, and C						29.5	31.0			100.0	
2. Commodity components											
A											
Volume (million tons)	33.3	12.5	15	25	25			38.7	35.3	57.5	
Unit value (SDR/ton)	3	4	3.2	2	3			-7.2	-6.8	-10.7	-10.7
Value	100	50	48	50	75			28.7	28.7	46.8	
B											
Volume (million tons)	20	20	20	20	20			0.0	0.0	0.0	
Unit value (SDR/ton)	4	4	3	4	4.5			28.8	28.8	58.7	58.7
Sum of volume and unit value	80	80	60	80	80			28.8	28.8	58.7	
3. Compensatory purchase early purchase at end-year $X_0$											
Shortfall				31.0							
Purchase (constrained by access)				10.0							
Of which: Due to overlap items A and B				4.8							
<b>II. Contingency purchase</b>											
	$X_{-2}/X_{-1}$	$X_{-1}/X_0$	$X_0/X_1$	$X_1/X_2$	$X_2/X_3$						
1. Baseline (program year ending $Q_2 X_1$ )											
Export value of Commodity A											
Volume (million tons)											48
Unit value (SDR/ton)											16.3
Value											3.0
Export value of Commodity B											65
Volume (million tons)											20
Unit value (SDR/ton)											3.25
Value											10
Interest costs											10
2. Financing ratio: 50% of net BOP deviation											
3. Contingency purchase triggered in $Q_1 X_1$											
Estimated values											
Export Commodity A											32.6
Volume (million tons)											16.3
Unit value (SDR/ton)											2.0
Export Commodity B											75.0
Volume (million tons)											20.0
Unit value (SDR/ton)											3.75
Interest costs											13.0
Net deviation <sup>3/</sup>										9.4	
Export Commodity A										16.4	100.0
Export Commodity B										-10.0	174.5
Interest										3.0	-108.4
Purchase <sup>4/</sup>											31.9
4. Contingency purchase in $Q_2 X_1$											
Net deviation										9.4	
Of which: Due to overlap items A and B										6.4	
Adjustment for double compensation (minimum (4.8, 6.4) * 3/12) <sup>4/</sup>										1.2	
Standard deduction (4% of quota (100))										4.0	
Purchase ((9.4-1.2-4.0) * .5)										2.1	

<sup>1/</sup> Unadjusted value shortfalls prorated by ratio of sum of shortfalls (SDR 31.0 million) to total shortfall (SDR 29.5 million). Volume and unit value shortfalls prorated by ratio of sum of volume and unit value shortfall (Commodity A: 31.5 percent) to adjusted value shortfall (Commodity A: 28.7 percent).  
<sup>2/</sup> Adjusted value shortfalls as percent of total. Components prorated by ratio of the value (Commodity A: 46.8 percent) to sum of volume and unit value components (Commodity A: 28.7 percent).  
<sup>3/</sup> A positive deviation represents an adverse movement in a balance of payments item.  
<sup>4/</sup> Adjustment for partial overlap (3 months) between program and shortfall year.

Table 6. Compensatory, Cereal and Contingency Elements: Coverage and Overlap

	Compensatory	Cereal	Contingency
<b>Total Coverage</b>			
Exports	Shortfall in total merchandise exports, composed of volume and unit value shortfalls of individual commodities		Net deviation in value of key individual exports, composed of either deviations in unit values, or deviations in volume caused by external demand factors
Imports		Excess in sum of values of key cereal imports, composed of volume and unit value excesses of individual grain imports	Net deviation in value of key individual imports, composed of deviations in value prices.
Services	Shortfall in value of tourism and/or workers remittances		Net deviation in value of tourism and/or workers remittances (exogenous component)
Others			Net deviation in interest costs
<b>Coverage Overlap</b>			
Exports	Sum of shortfalls in unit values (or volumes) for commodities covered by a subsequent contingency purchase <sup>1/</sup>		Net deviation in export prices (or volumes) for commodities covered by a subsequent compensatory purchase
Imports		Sum of excesses in unit values for commodities covered by a subsequent contingency purchase	Net deviation in import prices for commodities covered by a subsequent compensatory purchase
Services	Sum of shortfalls deemed to be exogenous for services covered by a subsequent contingency purchase		Net deviation in value deemed to be exogenous for services covered by a subsequent contingency purchase
Other			None

<sup>1/</sup> "Subsequent" contingency or compensatory purchase relates to a purchase where the program or shortfall year overlaps with that of the given purchase.

