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To: Members of the Executive Board

From: The Secretary

Subject: External Contingency Mechanisms in Fund Arrangements - Preliminary Considerations

The attached paper on external contingency mechanisms in Fund arrangements has been tentatively scheduled for preliminary consideration by the Executive Directors on Friday, March 11, 1988.

Mr. Hernández-Catá (ext. 4531), Mr. G. G. Johnson (ext. 8779), or Ms. Puckahtikom (ext. 8780) is available to answer technical or factual questions relating to this paper prior to the Board discussion.

Att: (1)



INTERNATIONAL MONETARY FUND

External Contingency Mechanisms in Fund Arrangements--
Preliminary Considerations

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Research Departments

(In consultation with other Departments)

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	<u>Contents</u>	<u>Page</u>
I.	Introduction	1
II.	The Role of External Contingency Mechanisms	3
	1. Unforeseen external developments in Fund-supported adjustment programs	3
	2. The concept of contingent financing	5
	3. External contingency mechanisms in the adjustment process	6
III.	Basic Features of an External Contingency Mechanism	8
	1. Appropriate mix of adjustment and financing	8
	a. Adjustment and Fund financing	8
	b. Financing from other sources	10
	2. Symmetry	11
	3. Exogeneity of unforeseen developments	13
IV.	Technical Aspects of the Design of an ECM	14
	1. Baseline scenario	14
	2. Coverage	16
	3. Calculating the exogenous component of contingent deviations: specific issues	18

V.	Issues Regarding Interest Rate Contingencies	20
1.	The definition of interest costs in the context of an ECM	20
a.	Unexpected changes in interest rates: real or nominal?	20
b.	Unexpected changes in the risk premium	23
c.	Unexpected exchange rate developments	23
d.	Unforeseen changes in the external debt	23
2.	Contingency mechanisms and the level of external debt	24
VI.	Operational Issues	25
1.	Possible operational structure of an ECM	25
a.	A new facility	25
b.	Amended or expanded CFF framework	26
c.	The framework of credit tranche resources	27
d.	Access policy	28
2.	The implications for the Fund's liquidity	29
VII.	Summary of Issues for Discussion	31

I. Introduction

A mechanism for contingent access to the Fund's resources 1/ in response to developments in commodity prices was incorporated for the first time in the 1986 stand-by arrangement for Mexico. 2/ The main features of mechanisms of this type were reviewed by the Executive Board in its discussion on program design and performance criteria in December 1986. In that discussion, most Directors viewed such mechanisms as a flexible response to very difficult circumstances, but stressed the need to approach the matter with caution and on a case-by-case basis. 3/

Since then, there have been suggestions for more general use of contingency mechanisms and a number of proposals have been put forward. In its report on "The Role of the IMF in Adjustment with Growth," the Group of Twenty-Four recommended contingency mechanisms to protect adjustment programs from unexpected exogenous events. 4/ At the 1987 Annual Meeting, the creation of an external contingency facility was proposed by the Governor for the United States to help cushion the adverse effects on Fund-supported adjustment programs of unforeseen adverse external developments. 5/

The G-24 report also called for the development of a growth contingency mechanism and for contingent adjustment of Fund repurchase

1/ This type of mechanism is different from automatic adjustments to performance criteria or the standard review clauses in letters of intent in that it provides for additional use of Fund resources on a contingent basis.

2/ "Mexico--Request for Stand-By Arrangement - Letter of Intent," EBS/86/161 (7/23/86); Supp. 1 (8/15/86); Supp. 2 (9/4/86); Supp. 3 (9/8/86); Supp. 4 (9/11/86); Supp. 5 (10/29/86); and Supp. 6 (11/20/86). As it turned out, contingent Fund financing under the oil price contingency was not in fact called for during the stand-by period.

3/ See "The Chairman's Summing Up on the Discussion of Program Design and Performance Criteria," Buff 86/232 (12/10/86). "Automatic Adjustments in Response to Developments in Commodity Prices and Economic Growth," EBS/86/211, Supp. 2 (11/11/86), one of the staff papers available on that occasion, dealt with contingency mechanisms of the Mexican type.

4/ EBD/87/196 (7/22/87).

5/ Statement by the U.S. Secretary of the Treasury, at the joint meetings of the World Bank and the International Monetary Fund, Washington, D.C., September 30, 1987. See also statement circulated by the U.S. Executive Director, "U.S. Proposals for Strengthening the Fund's Role in the Debt Strategy," 10/9/87.

obligations. The staff could do further work on these types of contingencies if Executive Directors so desired. ^{1/} (Section IV of the present paper briefly notes some issues that would be involved in growth contingencies for exogenous factors.)

Proposals for a broader treatment of external contingencies in Fund arrangements were discussed in a preliminary manner at the November 1987 review of the CFF. At that time, Directors reached a broad consensus that contingent access to the Fund's resources could contribute to the success of adjustment programs, and requested that the staff examine in detail technical aspects of approaches to contingent use of Fund resources and modalities of their possible operation. ^{2/} This paper is intended to respond to that request.

For simplicity, the discussion of technical aspects of contingencies in this paper is presented in the framework of adjustment programs supported by stand-by and extended arrangements; contingent Fund financing for other types of adjustment programs (such as those supported by SAF resources) would involve further considerations that are touched on only briefly.

To provide background for consideration of the issues involved, the paper begins (Section II) with a brief examination of how unforeseen external developments affect Fund-supported adjustment programs, and presents some general considerations bearing on the potential role of external contingency mechanisms (ECMs) in Fund arrangements. Sections III and IV discuss the basic features and technical aspects of the design of such a mechanism. Section V considers issues regarding contingency mechanisms for changes in interest payments, and Section VI considers, in general terms, possible operational structures for an ECM and the implications for the Fund's liquidity. Section VII concludes with suggested topics for discussion.

A supplement to this paper provides a review of unforeseen external developments in Fund arrangements, and addresses a range of technical topics including issues in estimating the exogenous component of contingent deviations, the effects of unanticipated changes in world interest rates, and the forecasting record of the WEO for selected exogenous variables.

^{1/} At the December 1986 Board meeting referred to above, there was a discussion of the particular type of growth contingency that had been included in the arrangement with Mexico, which did not involve additional Fund financing.

^{2/} See "The Chairman's Summing Up at the Conclusion of the Discussion of the Compensatory Financing Facility," Buff 87/238, (EBM/87/158, 11/16/87). See also "Review of the Compensatory Financing Facility," EBS/87/165 (7/28/87), and "Review of the Compensatory Financing Facility--Further Considerations," EBS/88/20 (2/3/88).

II. The Role of External Contingency Mechanisms

1. Unforeseen external developments in Fund-supported adjustment programs 1/

Assumptions regarding the near term course of key external variables are a central element in adjustment programs. Projections of variables, such as the terms of trade, the strength of external demand, and world interest rates over the course of a program, like economic projections in general, are subject to margins of errors.

The record of the last six years suggests that in a significant proportion of Fund arrangements, key external variables deviated substantially from the values assumed at the outset of the program. 2/ Deviations from program assumptions occurred about evenly in adverse and favorable directions.

Unforeseen adverse external shocks have had disruptive effects on programs, particularly where difficulties in policy implementation were already being encountered. In some programs where there were margins for maneuver (including use of reserves) and policy flexibility, disruption was only temporary and the program was brought back on track. More generally, however, the needed adaptations of policies were so large and the time required to develop them so long that, often, it did not prove feasible to do so in the context of the existing arrangement. Further financial support from the Fund was thus delayed, and required development of a new arrangement. Where the adverse shocks gave rise to shortfalls in export receipts that qualified a member to make a purchase under the terms of the compensatory financing facility, support was available under that facility but, again, only with some delay.

Unexpectedly favorable external developments have also given rise to the question of how policies should respond. As with unforeseen adverse developments, the issue has been the appropriate response with respect to both financing and policy to consolidate the adjustment process. At times, the favorable developments have been reflected in a strengthening of the member's external position through a larger buildup of reserves or reduced reliance on foreign borrowing. In a few instances, the strengthening of the external position was such that the member refrained from making further Fund purchases under the arrangement; and there have also been instances of early repurchases. In other cases, however, the favorable developments were reflected in

1/ See Section I of the supplement for a more detailed review of the experience during 1982-87, and the approach adopted to estimate the incidence and scale of unforeseen exogenous external developments.

2/ As described in detail in the Supplement, the deviations (roughly measured) of external developments from program assumptions may have exceeded 0.5 percent of GDP (plus or minus) in some 40 percent of arrangements approved during 1982-87.

relaxation of policies that in some cases proved to be premature or unsustainable, particularly where these external improvements turned out to be temporary.

This experience underlines the importance of adequate margins in programs for policy maneuver to cope with a volatile external environment. Reserves built up under favorable conditions can also provide a cushion for possible adverse turns of events. Beyond these possibilities, however, there is the question of whether provision of flexible financial support by the Fund through ECMs in Fund arrangements could further strengthen the adjustment process. The basic consideration here is whether a formal and explicit assurance of contingent financing would provide a greater degree of confidence to help sustain adjustment that otherwise would move off course.

The remainder of this paper explores the conceptual and technical issues that would need to be addressed if it were considered desirable to provide such explicit assurances. The paper takes as a starting point a number of basic elements that would appear essential to a feasible and effective ECM. First, it would need to be kept--to the extent possible--simple and transparent in design, which would argue against fine-tuning. Second, it should not attempt to meet all external disturbances but rather focus on those types that are substantially beyond the control of the authorities, and that could have fairly predictable effects. ^{1/} Third, the time horizon for an ECM would need to be limited to the basic program period for which policies are clearly defined; disturbances lasting beyond this period would require a reassessment of the overall situation for the next policy period. Fourth, the diverse circumstances of members would suggest that ECMs be designed with a degree of flexibility and on a case-by-case basis, but subject to whatever broad guidelines are needed to ensure uniformity of treatment.

The lack of Fund experience in this area suggests that the initial approach to ECMs might need to be experimental, particularly if it were considered important to begin providing such support in the near future. From that perspective, it might be best not to tie down mechanisms and modalities too specifically at this time.

^{1/} Thus, an ECM should not try to capture the broad range of effects of say, natural disasters, except insofar as a disaster had effects on particular variables covered by the ECM. More general assistance is, of course, provided under the Fund's policies on emergency assistance related to natural disasters, which were last reviewed at EBM/82/16 (2/10/82) on the basis of "Fund Policies with Regard to Emergency Assistance Related to Natural Disasters," SM/82/7 (1/8/82).

2. The concept of contingent financing

It will be recalled that the stand-by arrangement (SBA) was developed as a mechanism for the Fund to assist members to respond to comprehensive "contingencies". The basic purpose of such an arrangement was to give confidence to the member that it would be able to enter into specified transactions with the Fund if a balance of payments need were to arise while policies kept to their intended track. In its original concept, an arrangement could be for either potential or immediate need for Fund resources. 1/

Over time, however, SBAs have been accepted increasingly as a vehicle for immediate financing rather than to meet contingencies. Moreover, SBAs (and extended arrangements) have not, except for the 1986 arrangement with Mexico, featured contingent financing in light of external developments. Thus, general contingency mechanisms beyond those implicit in the SBA itself would need to be evaluated in terms of whether they would be a useful extension of the original concept of SBAs.

As noted above, margins for contingencies normally exist in adjustment programs, via the possibility of using reserves or additional financing as well as through the scope for additional policy action. However, these margins may have narrowed of late since the adjustment process has extended over longer periods, and since the availability of reserves or bank financing has become more limited.

One avenue for increasing the margin for maneuver would be for the Fund to provide contingent financing within existing Fund policies and practices. Fund financing to deal with exogenous shocks could be provided as part of an ongoing adaptation of the program through augmentation of access at the time of program review within specified access limits. 2/ A commitment by the Fund to consider augmentation if need should arise in the course of an arrangement could in fact be provided for in the arrangement itself. Such augmentations do not raise issues of principle with respect to use of Fund resources: international reserves are intended to provide a cushion against a deterioration in the external position, whether they are owned or borrowed from the

1/ The decision of February 13, 1952 stated in part:

"Sometimes a member may want to submit to the Fund a specific request for drawings, with adequate information as to the particular situation which prompts the request. At other times discussions between the member and the Fund may cover its general position, not with a view to any immediate drawing, but in order to ensure that it would be able to draw if, within a period of, say, 6 to 12 months, the need presented itself." (Executive Board Decision No. 102-(52/11)).

2/ To date augmentation has in fact been used only to compensate for a quota increase or early repurchases.

Fund. Augmentation also would be a relatively simple alternative, although the way in which the mechanism might operate would also have to be considered from the viewpoint of the Fund's various concerns regarding the appropriate use of its resources.

However, augmentation in this fashion might not provide as well-defined or as prompt a response on the part of either the Fund or the member as a more formal ECM. Furthermore, it would not offer as clearly defined a prospect for consolidating adjustment objectives, should external circumstances turn out better than anticipated. Contingent augmentation would also need to address the issue of the relationship to the CFF.

As noted earlier, financing for part of the adverse external shocks in some Fund arrangements has in practice been provided through the CFF. An alternative to ECMs therefore would be for the Fund to express ex ante willingness to grant compensatory financing to a member that had specified in advance that it would request such a purchase under certain circumstances. ^{1/} The CFF, however, can only compensate for shortfalls in export earnings (or excesses in cereal imports) that have actually been experienced, measured against a five-year average, and thus provides support only after the shocks have had their effect. Contingent financing, on the other hand, could be designed to extend over a broader range of factors affecting the current account, and could be tailored to help overcome shortfalls from program assumptions that threaten program objectives in the year of occurrence (irrespective of the five-year trend).

3. External contingency mechanisms in the adjustment process

It thus appears that advance commitment by the Fund of contingent use of its resources up to specified amounts could help strengthen the adjustment process, by offering assurance to the member of prompt additional Fund financing in the event of adverse external shocks, thereby fostering an orderly phasing in of policy measures. With such assurance, the members might be more prepared to accept the risks they perceive in far-reaching adjustment programs. The incidence of program interruptions could also be reduced.

Commitment to contingent use of Fund resources could also offer a framework for closer cooperation with other creditors. By helping to reduce the incidence of interruptions in Fund arrangements, the ECMs could serve to limit disruptions in disbursements of other funds that are tied to Fund disbursements. Moreover, since adverse shocks could give rise to additional financing need well beyond the level that could be provided by the Fund alone, the ECMs could offer a basis for some

^{1/} For example, the letter of intent for the 1987 stand-by arrangement for Argentina (EBS/87/52, 1/13/87) indicated that Argentina would make an additional request under the CFF at the time of the first review if agricultural export prices were lower than projected.

form of parallel contingent financing from other creditors, as in the case of Mexico. Assured financing also would help ease crisis management, by allowing the authorities to focus attention on adjustment policies rather than on securing bridging finance.

Recent experience suggests that external contingency mechanisms could play a significant role in the adjustment process. As is described in the supplement to this paper, on certain assumptions ^{1/} a contingency clause with a symmetric feature (for both adverse and favorable developments) could have been triggered in as many as 40 percent of the arrangements approved in the last six years. The effectiveness of any ECM, however, would hinge critically on the effective linkage between changes in the amount of finance provided and underlying policy adaptation.

An important issue for consideration concerns the circumstances in which ECMs would be appropriate, and whether guidelines could be developed that would help to ensure uniformity of treatment of members. There are at least two circumstances where ECMs could be particularly useful and appropriate. First, for countries particularly susceptible to large and abrupt adverse shocks, it is important to have time to assess the nature and duration of the shocks and to implement the policy response. In these cases, an ECM could help avoid unduly abrupt shifts in policies. Second, where there has been strong adjustment for an extended period and difficult policy adjustments are continuing, an attempt to adapt policies promptly and fully for the adverse shocks could prove to be politically difficult and unsustainable. With due allowance for the adjustment already in train and the size of the required additional adjustment, a more gradual strengthening of adjustment policies may be more appropriate. Providing additional financial assistance in such circumstances could enhance the prospects for achieving balance of payments viability over the medium term.

In considering how an ECM could make an effective contribution to the adjustment process, a number of issues would need to be addressed. The first is the need to maintain the impetus of policy adjustment, avoiding any weakening as a result of a greater degree of automaticity in financing. The objective of contingent financing is to smooth adjustment in the face of external shocks, and the appropriate blend of financing with policy adjustment needs to be ascertained. Second, it would be important to ensure that participation by other creditors, particularly commercial banks, did not unduly complicate an already

^{1/} Most notably, that apart from the exogenous factors the programs were on track. The threshold for triggering contingency clauses is assumed to be the larger of 0.5 percent of GDP or 25 percent of quota.

protracted process of arranging financing. 1/ Third, there would be a need to ensure that baseline scenarios remained realistic, and that discussion of baseline scenarios did not unduly complicate program negotiations and reviews. These issues, and other questions of a technical nature, are discussed in the following sections.

III. Basic Features of an External Contingency Mechanism

In providing financial assistance to member countries in support of adjustment, the Fund pays due regard to special aspects of the country's situation and objectives, subject to the principle of uniformity of treatment. At the same time, the Fund needs to ensure that use of its resources under the adjustment program is consistent with the provisions of the Fund's Articles of Agreement, including the assurance of adequate safeguards for the temporary use of its resources. In accordance with these principles, three features of external contingency mechanisms would seem critical: (1) an appropriate mix of adjustment and financing, (2) symmetry, and (3) provision of contingent financing only for deviations that are substantially beyond the control of the authorities.

1. Appropriate mix of adjustment and financing

a. Adjustment and Fund financing

In committing financing, the Fund needs to ensure that the adjustment effort is consistent with achievement of balance of payments viability. Contingent financing would require strong assurances, since such financing would be made available to meet adverse disturbances that might prove not to be self-reversing.

An important issue in design would be determination of the mix of external financing and policy adjustments that are ultimately needed. Rigid rules regarding this mix would clearly not be appropriate, given the diversity of circumstances facing members.

(i) Scope for the use of ECMs in situations of adverse developments

A number of considerations suggest that there are limits beyond which ECMs would not be appropriate. For relatively minor, adverse developments, the normal margins built into adjustment programs should be sufficient. Generally, additional financing would not be

1/ At EBM/86/232, some Directors suggested that the scope for extending such mechanisms to other cases may well prove to be limited, given the significant delay that was experienced in securing creditors' participation in the contingency schemes for Mexico in 1936.

essential in these situations, and ECMs could be expected to be needed only above a minimum threshold level. 1/

At the other extreme, major unforeseen developments could have far-reaching policy and financing implications. Where the developments were too large to be dealt with in the framework of the resources available under the ECM, the adjustment framework would need to be reconsidered in its entirety, possibly requiring support by a new arrangement. 2/

In general, these limits may have to be measured in relation to an appropriate scale variable, such as the GDP. The size of the limits would have to be established case by case, since it would be difficult to specify a threshold size that would be universally applicable.

(ii) Scale of commitment of Fund resources

Contingent Fund financing would need to be limited to a specified fraction of the financing impact of unanticipated exogenous developments, since such financing would be intended not to obviate the need for policy adjustments but to facilitate a phasing in of adjustment measures. Moreover, it is to be expected that contingent assistance from the Fund would, where appropriate, be accompanied by parallel financing from other sources. Should adverse conditions persist beyond a certain period, the percentage of the financial cost covered by contingent financing would also be expected to decline as the need to emphasize policy adjustment increased. 3/

Contingent access would also need to be subject to applicable access limits (see Section VI below). In assessing the appropriate level of contingent access in individual cases, factors other than the size of the exogenously-caused deviations would also be relevant. The main factors would seem to be the considerations that guide the basic access level of the arrangement itself, namely, the overall balance of payments need and the strength of the adjustment program. Thus, the level of contingent access in individual cases would be expected to be closely related to the basic access of the associated arrangement. Also, as noted above, in the face of large changes in external conditions that would imply the need for additional Fund financing that

1/ For example, in the contingency mechanism for Mexico, fluctuations in the oil price within a specified range would not call for additional foreign borrowing.

2/ In the case of Mexico the amount of potential contingent financing by the Fund and commercial banks could accommodate oil price declines up to the equivalent of about 1.5 percent of GDP.

3/ The contingency mechanism in Mexico's arrangement involved full financing (up to a specified limit) of the additional requirement in the early part of the program, with progressively smaller financing (and greater adjustment) in later parts of the program. The program was protected essentially for nine months.

was very large relative to the amount of the arrangement itself, the basic framework of the arrangement might no longer be appropriate, suggesting the need for a new arrangement rather than adaptation of the existing one. Thus, maximum contingent access might be expressed as a specified fraction (e.g., 50 percent) of the basic access under the associated Fund arrangement. ^{1/}

(iii) Techniques of activation and monitoring

The degree of automaticity in providing finance under an ECM might depend, inter alia, on the extent to which the nature of the policy response to contingencies could be prespecified. In some cases, it might be possible to define in advance the nature of the appropriate policy response, which could be reflected in contingent adjustments to the relevant performance criteria, and possibly to obtain in advance financing assurances from other creditors. In such cases, contingent access could be activated in an automatic manner, as in the 1986 Mexico arrangement. The phasing of access could then be linked to observance of performance criteria, which themselves might be subject to automatic adjustment for the contingency.

Where major adaptations of the adjustment package and the related financing would be involved or where there were technical complexities in assessing the size and nature of the adverse shocks, activation of contingent financing might more effectively take place through program reviews. Ad hoc reviews could be used for this purpose, and there might also be scope for phasing of contingent access parallel to a predetermined review cycle. The specification of an ECM based on review procedures could be limited to indicating the maximum amount of contingent financing, along with the general circumstances under which the ECM could be activated (for example, the selection of critical external assumptions). More detailed formulations could also be envisaged that would specify such aspects as phasing, the proportion of contingent deviation to be financed, and how such deviations were to be measured. Review procedures would permit greater flexibility in responding to diverse needs of members than would more automatic procedures; on the other hand, automatic procedures would provide clearer assurances to the member of the circumstances in which additional financial support would be forthcoming.

b. Financing from other sources

Given the difficult balance of payments situation facing many members and the limited access to commercial borrowing, it is clear that advance and parallel involvement of other creditors would be essential. Moreover, if contingent financing were to be provided for

^{1/} The maximum contingent access in the case of Mexico was specified at SDR 600 million or 43 percent of the basic access of SDR 1,400 million of the stand-by arrangement.

unforeseen developments in world interest rates, involvement of bank creditors would seem imperative.

The degree of creditor involvement and the specific nature of parallel contingent financing would vary from case to case. Consideration might be given to possible alternatives to new bank financing, such as fixing or capping the interest rates on bank loans during the contingent period, which might be achieved at a cost to borrowers. The current difficulties being encountered in the normalization of debtor-creditor relations would suggest that the needed involvement may be time-consuming and difficult to secure in most situations. Nonetheless, in committing its resources the Fund would need reasonable assurances that the adjustment program was adequately financed and that an appropriate level and form of creditors' involvement would be forthcoming. However, given the evolving policy and procedures of other creditors, and the diverse circumstance of members, the nature of such financing assurances would need to be worked out on a case-by-case basis. 1/

2. Symmetry

The principle that insurance against unforeseen developments should be symmetric with respect to favorable and unfavorable deviations from the baseline scenario follows from the notion that contingency mechanisms should strengthen the adjustment process. 2/ The provision of asymmetric insurance could encourage the assumption of excessive risks by producers and borrowers in countries with contingency arrangements. Asymmetry could thus pose a problem for the operation of ECMs and jeopardize their role in reducing the vulnerability of adjustment programs.

The principle of symmetry has important implications for contingent financing as well as for policy adjustment. As was mentioned in Section III, uncertainty about whether, and to what extent, a particular unforeseen disturbance is likely to be temporary argues for combining adjustment and financing in responding to such a disturbance. Thus, in the event of unforeseen favorable developments, application of the concept of symmetry would imply only a partial relaxation of policies, setting aside much of the unanticipated gains to strengthen the member's external position. This might involve increasing reserves, reducing new foreign borrowing, or even possibly prepaying external debt, thus strengthening the member's creditworthiness. 3/ This interpretation was featured in the 1986 Mexican program and was widely endorsed by the

1/ For a discussion of the Fund's practices in this respect, see "Financing Assurances in Fund-Supported Programs," EBS/87/266 (12/14/87) discussed by the Executive Board on 2/5/88.

2/ The principle of symmetry was featured in the oil price contingency in the 1986 Mexican stand-by arrangement.

3/ As noted in Section I of the Supplement, provision for an accumulation of unforeseen gains for the rise in copper prices in the Copper Stabilization Fund was made in the case of the Chile 1985 EFF.

Executive Board. The case for a rebuilding of reserves would be particularly strong in circumstances where reserves are at very low levels so that the scope for policy relaxation is limited.

With respect to symmetry in Fund financing, several options to lower the use of Fund resources over the policy period could be considered, depending on the overall external position of the member. One option would be for the Fund to express its expectation that the member would voluntarily refrain from making further purchases under the arrangement should external conditions improve beyond a specified threshold. 1/ A stronger option would be to make clear provision for reduction of amounts committed under an arrangement. A third option would involve an expectation of early repurchases of amounts outstanding, which could be considered under the Fund's policy on early repurchases, and would apply if the member's external position were to strengthen substantially. 2/ All of these options would have the effect of increasing the availability of Fund resources in the event of future need.

A further issue is how to deal with the situation where the initial effect of unfavorable developments turns out to be more than fully reversed by later favorable developments, either within or beyond the period of the stand-by or extended arrangement. One possible response would be to have clear provision for early repurchase of the contingent purchases, which would give contingent financing a self-reversing character. A favorable turn of events would thus lead to rebuilding the margins for further use of Fund resources at a later date. 3/

1/ As noted in Section I of the Supplement, members that refrained from making Fund purchases under the arrangements include South Africa 1982, Portugal 1983, Korea 1985, and Thailand 1985.

2/ It may be noted that the principle of symmetry is already implicit in the Fund's policy regarding the use of its resources and early repurchases. Specifically, the use of Fund resources is subject to the criterion of need--defined as weakness in the member's balance of payments and reserve positions--while early repurchases are associated with strength of the external position. Thus, an extension of the concept of symmetry with regard to Fund financing in situations where unforeseen favorable developments are coupled with a strong external position would seem consistent with Fund policies. A decision to require early repurchases before the standard three years in the event of favorable contingencies would require an 85 percent majority of the total voting power. An expectation of repurchase, as in the case of over-compensated export shortfalls, would require only a simple majority.

3/ Adoption of this type of provision for an early repurchase in less than the statutory three years would require a voting majority of 85 percent.

3. Exogeneity of unforeseen developments

A key aspect of the CFF has been that the shortfall must result from factors that are largely beyond the control of the member. Certain contingency mechanisms included in the Mexican and Chilean arrangements--those involving the world prices of oil and copper, respectively--also were based on this concept. It seems clear that a similar criterion would need to apply to a more general structure of ECMs, since any application of contingency mechanisms to variables that are within the member's control would raise a serious problem of moral hazard.

It may be useful to distinguish between three types of variables: (i) variables that are directly influenced by the member's policies (such as tax rates); (ii) exogenous variables that are clearly beyond the member's control (such as commodity prices determined in world markets); and (iii) endogenous variables that are affected by a combination of exogenous factors and factors that are directly or indirectly under the influence of the country's policies (such as export and import volumes). One of the difficulties in the design of an ECM stems from the fact that most balance of payments variables are of an endogenous character and that most unforeseen changes in those variables are likely to reflect a variety of factors, some within and some beyond the control of the member country. If contingency mechanisms were to cover deviations involving endogenous variables, principles would need to be developed to isolate the exogenous component of the deviation; this issue is discussed further in Section IV.3.

The problem of exogeneity is, of course, of considerable importance in the context of the CFF. In order to analyze the causes of a shortfall in CF cases, the staff must establish whether the shortfall is "largely attributable" to circumstances beyond the member's control. If this is found to be the case, the entire amount of the calculated shortfall is generally regarded as compensable.^{1/} Moreover, the Executive Board has adopted a liberal interpretation of the words "largely attributable," giving the member experiencing the shortfall the benefit of a favorable interpretation in ambiguous cases.

There is a question whether the criterion described above can be readily applied to an ECM. An ECM would not be restricted to export shortfalls but might cover unforeseen changes in a broader range of balance of payments components. Moreover, it is argued below in Section IV.2 that contingent adjustment and financing should be based on the net sum of unforeseen exogenous deviations from a baseline

^{1/} The compensable amount of a shortfall can be reduced on account of decisions that have the effect of creating a shortfall or increasing its size, such as a deliberate accumulation of stocks. With this exception, however, the entire shortfall is viewed as compensable provided it is judged to be "largely" beyond the member's control. On this issue see EBS/82/42 (3/12/82).

projection. If this approach were to be adopted, it would seem appropriate to estimate, for each variable, that part of the deviation which can be attributed to factors beyond a member's control, and then to compute the net value of exogenous deviations. This approach would avoid the risk of a considerable overestimation of the aggregate shortfall that would arise if the contingent deviations for individual balance of payments variables were to be calculated on the basis of the "largely attributable" criterion, particularly under a liberal interpretation of that criterion.

IV. Technical Aspects of the Design of an ECM

The basic principle governing access to an ECM is one of balance of payments need over and above that anticipated at the time the original *adjustment program was framed*. Implementation of this principle would involve three major elements. First, a baseline scenario would need to be developed as a point of reference against which to assess unforeseen deviations. Second, criteria would need to be developed to select those variables for which deviations from the baseline would be calculated. Third, a number of technical issues would need to be tackled in calculating these deviations, including in particular the isolation of the exogenous component of contingent deviations in endogenous variables.

In evaluating the technical issues associated with the design and implementation of an ECM, it is worth mentioning at the outset two general points. First, while some technical issues inherent in an ECM go beyond existing Fund practice, others would be better characterized as extensions of such practices. For example, the issue of "exogeneity" of disturbances is the subject of considerable attention in determining eligibility under the CFF, just as consideration of deviations from original program assumptions is an integral element of the assessment by Fund missions of the viability of programs. In this sense, it would be inappropriate to overemphasize the novelty or "additionality" of many of the technical issues discussed below. Second, it should be emphasized that judgmental evaluations and approximations necessary to reflect data limitations will inevitably play a major role in any practical application of an ECM.

1. Baseline scenario

A contingency mechanism to be triggered by deviations of actual values from anticipated values of certain variables requires the adoption of a "baseline scenario" at the inception of the program. This scenario should include baseline projections for the variables relevant to the ECM through the life of the arrangement or through the first year of the program. It would be desirable to rely on projections that can be regularly updated, thus providing a timely basis for the establishment of baseline scenarios and for the calculations of contingent deviations. The historical track record should also suggest that these

projections tend to be reasonably accurate and are free from systematic bias. Unbiasedness would seem to be a particularly desirable property as it would avoid a disproportionate occurrence of either favorable or unfavorable deviations.

In light of these requirements, the use of the Fund's World Economic Outlook (WEO) projections for the purpose of establishing the ECM baseline would seem to have certain advantages. First, WEO forecasts for many of the variables that are of interest to an ECM (such as the growth of demand in partner countries, import and export prices) are prepared and updated at least twice a year. Also, Fund staff involved with program countries have ready access to, and are familiar with, these projections. Furthermore, the forecasting record of the WEO has been thoroughly examined and has been found to be broadly satisfactory. In a recent study, Artis 1/ concluded that the WEO's forecasting performance has been reasonably accurate 2/ and generally free of systematic bias. The study also found that WEO forecasts are efficient in the sense that they generally cannot be improved by using information from available forecasts prepared by the OECD or by private or official national forecasters. 3/

Reliance on WEO projections for many of the variables that are likely to be considered in an ECM would thus seem desirable. In some cases, however, the WEO projections may prove to be insufficient. First, baseline projections for certain country-specific variables not covered in the WEO may well be required in certain instances. Second, the WEO projections for certain variables of particular interest to an

1/ See Artis, M.J., "How Accurate is the World Economic Outlook? A Post Mortem on Short-Term Forecasting at the International Monetary Fund," SM/87/297 (12/23/87). See also Duncan, R.C., "EPDCS' Primary Commodity Forecasting Procedures and Procedures and Performance," World Bank Internal Draft, May 26, 1986.

2/ In particular, the WEO's forecasting errors in most cases were found to be small relative to those of a "naive" forecast. A "naive" forecast is based on the assumption that the relevant variable will not change in the period ahead or that the historical trend in that variable, if any, can be extrapolated.

3/ A more detailed examination of the WEO's forecasting record as regards the main variables of interest to an ECM is provided in Section III of the Supplement.

ECM (notably oil prices and international interest rates) are working assumptions rather than true forecasts. 1/

Ideally, the calculation of contingent deviations would involve a comparison between the actual value of a variable and its level projected in the baseline scenario. In practice, however, this may not always be possible because the actual value of the variable may not be known at the time the calculation has to be made. For example, if the ECM calculations were to be made at the midyear review of an arrangement, 2/ official estimates for the first six months of the year might not be available for certain key variables. (For example, even preliminary data on GNP or GDP growth in major industrial countries are available with lags ranging from one to four months. Similar data for developing countries may involve considerably longer lags and are usually available only on an annual basis.)

One possible way to deal with the lack of timely data on outturns is to rely initially on revised WEO projections in lieu of actual data. Of course, the use of such revised projections would introduce an error in the calculation of the shortfall. It should be noted, however, that the evaluation of WEO forecasts by Artis indicates that revised (current year) projections tend to be significantly more accurate than the corresponding initial (year-ahead) projections. In any case, if revised projections or preliminary estimates were used instead of actual values, a procedure would need to be developed for the reversal of purchases in case of initial overestimation.

2. Coverage

This section discusses possible approaches to the issue of coverage, i.e., the question of which variables should be used to assess unforeseen deviations from the baseline. The approaches considered are based on unanticipated changes in: (i) a global indicator such as the current account of the balance of payments and (ii) the net effect of exogenous factors affecting selected components of the balance of

1/ In the WEO, the oil price is generally assumed to remain unchanged in relation to a pre-specified base period; a similar technical assumption is adopted with respect to exchange rates among major industrial countries. The WEO projections do envisage changes in the Eurodollar rate--and in the domestic interest rates for the industrial countries as well--over the forecast period. However, the magnitude of these changes is circumscribed, given the standard assumption that market participants would remain willing to finance any prospective budgetary and external imbalances without requiring major changes in exchange rates or interest rates.

2/ This would allow ECM financing to become available with a shorter average lag than in the case of the CFF. In CFF cases, the average lag between the middle of the shortfall year and the date of approval of a CFF drawing has averaged 11 months in the period 1983-87.

payments. In evaluating these approaches, it is important to keep in mind the need to define coverage on the basis of variables that can be projected and for which the exogenous component of unforeseen changes can be identified.

(i) A global indicator such as the current account would provide a broad indication of balance of payments need. It would have the virtue of simplicity in that it would involve a single and comprehensive indicator. In practice, however, it would be very difficult to assess the extent to which unforeseen changes in the current account reflected exogenous factors without performing a detailed examination of the key individual components of the current account--thus, in effect, moving away from the concept of a global indicator. Another possibility under this approach would be to specify that unforeseen changes in the current account are to be considered beyond the control of the member country provided that all performance criteria have been met. However, there are certain difficulties with this solution. Performance criteria do not cover the entire range of economic policies. Therefore, the assumption that compliance with such criteria implies that an unexpectedly unfavorable outcome for the current account is fully beyond the member's control is not necessarily warranted. Conversely, a country that has failed to meet some performance criteria may well face an unforeseen deterioration of its current account which could result partly--and perhaps largely--from factors beyond its control. (Indeed, such unforeseen developments may have resulted in failure to meet the performance criteria.) Yet under this procedure the country would be denied access to contingency mechanisms.

(ii) The second approach would be to focus on the net effect of unanticipated changes in the exogenous component of selected current account variables. This approach would have the advantage of taking into consideration a broad range of disturbances without requiring the determination of whether an unforeseen change in the global current account is or is not largely beyond the control of a member country. At the same time, it would make possible the calculation of contingent deviations for those countries--including most of the exporters of manufactures--for which the major sources of uncertainty regarding current account prospects cannot be linked to a narrow set of factors, such as the export prices of key commodities. It may be noted in this regard that whereas greater diversification of exports itself reduces uncertainty, it does not eliminate the vulnerability of the balance of payments to unforeseen exogenous developments. Indeed, the empirical evidence reviewed in Section II of the Supplement indicates that the exports of developing countries are significantly affected by changes in economic activity in industrial countries, as well as in other developing countries, and that this effect is particularly large for exports of manufactures.

An important issue under this approach is to ensure that the set of current account variables included in the ECM is kept within manageable proportions and that sufficient flexibility is provided to deal with a wide variety of country-specific situations. Thus, it might be desirable to approach the selection of the appropriate set of contingent variables on a case-by-case basis. Relevant considerations in this regard might include the reliability and timeliness of data, and the importance and variability of the factors involved.

To summarize, the operation of an ECM under this approach would involve a number of steps. First, the exogenous component of the deviation from baseline would be estimated for each of a pre-specified set of current account variables--which might include, for example, export and import prices and volumes. Second, the aggregate shortfall would be calculated by netting out the shortfalls/excesses for individual items. Third, the minimum threshold level would be specified. ^{1/} If the aggregate shortfall exceeded the minimum threshold level, contingent financing would be made available and performance criteria would be adjusted. (In the case of excesses, larger-than-programmed increases in reserves and reduction in external financing might be called for.)

3. Calculating the exogenous component of
contingent deviations: specific issues

In this section, the question of calculating unforeseen deviations from the baseline projection for individual balance of payments variables is addressed against the background of the requirements identified in previous sections, notably the requirement of exogeneity. This section also notes issues that arise in attempting to calculate the effects on economic growth of unforeseen exogenous developments. The issues raised by the possible inclusion of international interest rates in the list of contingent factors are examined separately in Section VI.

As noted in the previous section, there is a strong case for basing contingency mechanisms on a manageable number of pre-specified variables selected on a case-by-case basis. In some cases, it might be possible to limit coverage to a few key commodities while in other cases a broader coverage would be desirable. Where the exogenous character of the deviation could be clearly identified (for example, in the case of many commodity prices), automatic activation of contingency mechanisms through performance criteria (as adjusted for the contingency) might be feasible. For countries with a diversified pattern of current account transactions, a more general approach may need to be adopted and review procedures are likely to be required. In those cases, relatively simple formulas could be used to estimate, for example, the impact of unforeseen changes in external demand on variables such as the volume of

^{1/} As indicated above in Section III, maximum thresholds also would be involved.

exports, tourist receipts, and workers' remittances. ^{1/} Also, unexpected changes in import prices could be estimated on the basis of actual and projected values of foreign prices in major trading partners. It should be noted that this kind of approach is implicitly followed by the staff in their normal assessment of the impact of external factors on Fund programs. In designing contingency mechanisms, this implicit approach could be extended and refined to the extent possible, given the limitations of the data.

It is clear that in many important cases, the calculation of contingent deviations will need to rely on judgmental estimates. Indeed, judgment will be required when the deviation results from disturbances with unpredictable effects, such as natural disasters, or when baseline projections for the relevant exogenous variables are not available. It might also be very difficult to estimate the effect of most foreign trade policy measures affecting the country's exports. In all these cases, the determination of exogeneity and the estimation of the size of the deviation would be largely judgmental and would need to rely on the experience of the CFF.

Similar issues would arise with respect to growth contingencies for unforeseen exogenous developments. In the context of the approach adopted in this section, such contingencies would involve estimating the exogenous component of unforeseen changes in domestic output. This would require information on a large number of parameters, including marginal propensities to consume and to import, marginal rates of taxation and the interest rate sensitivity of investment. Information on these parameters is not available for many countries; and where it is available, the estimates might in some cases be unreliable and controversial. In any event, the task of isolating the exogenous component of unexpected changes in output would be complex and probably would involve significant errors stemming from inaccurate estimates of the relevant parameters. An alternative would be to specify that contingency mechanisms would be triggered by unforeseen changes in domestic output provided that the performance criteria under a Fund arrangement had been satisfied. However, this solution would pose problems similar to those discussed above in subsection 2 in connection with the current account

^{1/} A formal framework for estimating the exogenous component of unforeseen deviations in endogenous variables is presented in Section II of the Supplement. By way of illustration, calculation of the exogenous component of a contingent deviation in export volume would involve the difference between actual and predicted values of aggregate demand in partner countries, and an estimate of the extent to which exports are affected by changes in external demand. It may be noted that this approach makes it unnecessary to estimate that part of the shortfall which results from inadequate policies (such as inadequate incentives to exports resulting from an overvalued exchange rate or artificially low producer prices) or other factors within the member's control. For a discussion of the difficulties involved in gauging the importance of these effects in the context of the CFF, see EBS/82/42.

of the balance of payments. It would not provide a clear answer to the question of whether the deviation was beyond the member's control and therefore would pose a problem of moral hazard.

V. Issues Regarding Interest Rate Contingencies

Estimating the exogenous component of contingent deviations in interest payments raises a number of problems. In addition to the difficulties in establishing an adequate baseline projection for interest rates, two major issues are involved: (i) the appropriate definition of interest costs in the context of an ECM; and (ii) the possible interrelation between contingency mechanisms and the level of the external debt of the countries covered under an ECM. Many of these issues were addressed in a previous staff paper ^{1/} and some of the technical aspects of isolating the exogenous component of unforeseen changes in interest costs are examined in Section II of the Supplement. That section also reviews some of the instruments available in world financial markets to hedge against future increases in borrowing costs, including future contracts for Eurodollar interest rates and "ceiling rate agreements" with investment banks.

1. The definition of interest costs in the context of an ECM

Unforeseen changes in interest costs can result from several factors: differences between actual and predicted values of the world interest rate (excluding the risk premium); unforeseen changes in the risk premium; unexpected exchange rate developments; and unforeseen changes in the external debt.

a. Unexpected changes in interest rates: real or nominal?

For any individual debtor country--with the notable exception of the United States--the effect on the cost of borrowing of unforeseen changes in the base international interest rate is clearly beyond its control. A question that arises, however, is whether contingency mechanisms should apply to unforeseen changes in nominal or in real rates.

The argument for basing contingencies on real interest rates is that unforeseen changes in the rate of inflation affect not only the nominal interest rate but also the real value of the debt. For example, if the unforeseen rise in the nominal interest rate resulted fully from unanticipated inflation, the corresponding rise in the cost of borrowing would be offset by a commensurate erosion in the real value of the debt. In those circumstances, the country could borrow just enough to maintain

^{1/} "A Fund facility to Help Members Meet Increases in Interest Costs--Main Issues" SM/86/43 (2/26/86).

the real value of its external liabilities, and such borrowing would cover the full rise in nominal interest costs stemming from unanticipated inflation. Accordingly, contingent financing should be limited to additional interest costs which result from unexpected changes in real interest rates, since this is the only factor which represents an additional transfer of real resources from the debtor to the creditor.

The difficulty with this argument is that the additional financing required to restore the real value of the debt may not be available, or may be available only at less favorable terms than those envisaged at the inception of the program, so that the country could face an unexpected real burden. If, for example, new financing can be arranged only at interest rates higher than those predicted in the baseline scenario, then restoring the real value of the debt would involve an unexpected rise in interest costs. This rise would be beyond the control of the debtor country and therefore could be judged to qualify for contingent financing under an ECM. A quantitatively more substantial problem would arise if lenders were not willing to extend the required financing. In that case, it might be argued that contingent financing should cover the full effect of unforeseen changes in nominal interest rates, even if they resulted from unexpected inflation.

A decision to base contingency mechanisms on changes in interest costs resulting only from unforeseen changes in real interest rates would raise the difficult question of the appropriate price variable to be used in measuring real rates. The first issue is whether nominal interest rates should be deflated by an index reflecting world prices or by an index of export prices of the borrowing countries. ^{1/} In the latter case, it might be argued that, for the purposes of an ECM, unforeseen changes in the export prices of developing countries should be adjusted to exclude the effects of changes in domestic costs, since those changes could not be assumed to be beyond the member's control. This would be consistent with the treatment of unexpected price changes affecting exports and would be more in line with the use of world prices. A simple alternative would be to calculate the real interest rate using an index of prices in major industrial countries. Even on that basis, however, estimates of the unforeseen change in interest costs could be greatly affected by the selection of alternative price variables. ^{2/}

^{1/} As indicated in SM/86/43, the range of variation of the inflation-adjusted interest rate would be much wider if the calculation were based on the dollar export price of capital-importing developing countries rather than on U.S. prices.

^{2/} As shown in Section IV of the Supplement, the estimated change in interest costs for some recent years could have been either positive or negative depending on whether inflation was projected on the basis of WEO forecasts or on the basis of surveys of price expectations.

Any quantitative evaluation of contingent deviations in interest payments would be sensitive to various choices regarding the appropriate definition of interest rates, the appropriate price deflators, and the nature of the baseline projections. Nevertheless, it might be useful to provide some illustrative examples. 1/ If year-ahead projections for nominal interest costs had been based on the interest rate prevailing at the end of the previous year, the average annual absolute change in gross interest costs stemming from unforeseen changes in nominal rates would have been some US\$3 1/2 billion for all capital-importing developing countries over the period 1978-87. In other words, if all capital-importing countries had had access to an ECM over that period, the unforeseen deviation in nominal interest costs in a typical year would have been US\$3 1/2 billion. The mean absolute deviation stemming from changes in real interest rates would have ranged between US\$3 3/4 billion and US\$5 1/2 billion, depending on the price deflator used.

Simulations of Unforeseen Changes in Interest Costs for All
Capital-Importing Developing Countries 2/

(In billions of U.S. dollars, at annual rates)

	Resulting from Unexpected Changes in:			
	Nominal interest rates		Real interest rates <u>2/</u>	
	Gross debt	Net debt <u>3/</u>	(1)	(2)
Typical annual change (absolute value)	3.4	2.6	3.7	5.4
Maximum shortfall	4.2	3.5	7.4	8.9
Maximum excess <u>4/</u>	-6.9	-5.4	-2.3	-9.5
Average annual change <u>4/</u>	0.6	-0.5	0.8	0.7

1/ Details on the assumptions underlying the simulations are provided in Section IV of the Supplement which also contains simulations for the 15 "heavily indebted" developing countries.

2/ Based on "naive" (straight line) forecasts for the period 1978-87. Unexpected changes in real interest rates are calculated on the basis of gross debt and are based on projections for: (1) the U.S. GNP deflator and (2) the U.S. consumer price.

3/ Gross external debt minus official holdings of foreign exchange.

4/ A negative sign indicates an unforeseen reduction in interest costs.

b. Unexpected changes in the risk premium

In general, changes in the risk premium should not be subject to consideration under an ECM inasmuch as they reflect changes in creditworthiness that result from the member's policies. It might be argued, however, that changes in creditworthiness also might reflect "contagion effects" arising from the policies of other debtor countries. Moreover, risk premia might be influenced by changes in certain variables--such as commodity prices and economic activity worldwide--that are beyond the member's control and should therefore be covered under an ECM. However, the empirical evidence on the subject is quite limited, as indicated in Section II of the Supplement, and suggests that it might be difficult to estimate these exogenous effects with any degree of confidence.

c. Unexpected exchange rate developments

Two types of exchange rate developments should be considered: changes in the exchange value of the debtor country's currency; and changes in the exchange value of the various currencies in which a country's external debt is denominated. A depreciation of the debtor country's currency could not be considered exogenous and its effects on the local currency value of interest payments would therefore not be covered under an ECM. On the other hand, it could be argued that a rise in interest costs (expressed in, say, U.S. dollars) resulting from a depreciation of the U.S. dollar against other foreign currencies should be considered beyond the member's control and therefore should qualify for contingent financing. It should be noted, however, that any change in the exchange rate between two major currencies is likely to be associated with changes in the interest rate differential on Eurocurrency loans denominated in those currencies so that the net impact on the cost of borrowing would be limited.

d. Unforeseen changes in the external debt

Even with unchanged interest rates, interest payments could increase as a result of a rise in the external debt that was not anticipated at the start of the program. In general, if the rise involved a real increase in the external debt, it would be seen as a deliberate action by the country and therefore would not be covered under an ECM. However, the additional interest cost associated with new borrowing intended to prevent erosion in the real value of the debt by unanticipated inflation might be considered beyond the member's control, at least to the extent that it reflects unexpectedly higher world interest rates.

2. Contingency mechanisms and the level
of external debt

From the perspective of a debtor country, an ECM would reduce the uncertainty associated with the cost of external borrowing by reducing the expected variability of interest rates. As a result, the existence of an ECM would induce countries to contract a higher level of external debt than they otherwise would, provided that borrowers have some degree of risk aversion. This, in turn, would mean that future interest costs would be larger (other things being equal) and so would the magnitude of unforeseen changes to be covered by contingency mechanisms. It should be noted that this would be the case even if the ECM were based on the principle of symmetry, since a risk-averse borrower would value a reduction in uncertainty even if it applied equally to unexpected increases and declines in borrowing costs. Of course, the problem would be considerably more serious in the absence of symmetry, since the availability of contingency financing would then reduce the expected cost, as well as the variance, of unforeseen changes in world interest rates.

The issue just raised is not unique to the case of borrowing costs. For example, the provision of insurance against unforeseen changes in the world price of a commodity would be expected to encourage production of that commodity and therefore to raise the future level of exports to be covered by contingent financing. In itself, this does not argue against contingency mechanisms; it simply argues for less than full coverage of unforeseen shortfalls for all the current account items covered by ECMs. There is an aspect of this problem, however, that relates specifically to the cost of external borrowing.

The same logic that suggests netting out exogenous deviations across components of the current account indicates that contingency mechanisms should apply to interest receipts as well as to interest costs. Accordingly, the effect of any unanticipated change in the world interest rate should be applied to the stock of external liabilities net of external assets. This, however, would be difficult to achieve in practice because in many debtor countries a substantial proportion of private sector claims held abroad is not recorded. The consequence of this limitation would be to increase the size of the unforeseen changes in net interest costs covered under an ECM over and above what they would be if recording of external assets and liabilities were fully symmetric. This line of thought provides an additional argument for limiting contingent financing to a specified fraction of the relevant shortfall. It also suggests that netting of external assets against external debt should proceed as far as possible given the limitations of existing data. It may be noted in that regard that the effect of netting out official holdings of foreign exchange from the external debt positions of capital-importing countries is to reduce the estimated average size of unforeseen changes in net interest costs in a typical year by roughly one fifth over the period 1978-87.

VI. Operational Issues

1. Possible operational structure of an ECM

The preceding sections have dealt with the issues of whether it would be desirable and feasible for the Fund to provide contingent access to its resources in response to unforeseen external developments and how such an ECM might be designed. Another important issue is the operational structure for an ECM in the context of Fund facilities. Three alternatives have been suggested: (a) a new facility in the Fund's General Resources Account; (b) the CFF suitably amended or expanded; and (c) the framework of credit tranche resources, including ad hoc augmentation of Fund arrangements. ^{1/} This section outlines in general terms the operational issues that would be involved in each of these alternatives. Illustrative simulations of possible implications for the Fund's liquidity are provided in subsection 2, below.

a. A new facility

Through a separate facility with clearly specified policies on its use, the Fund could perhaps provide more assistance and encouragement for the use of contingent Fund financing than if the mechanisms were to be part of other existing facilities, though this would come at the cost of adding further complexity to the Fund's financial structure. Development of such a facility would need to be viewed in relation to the potential demands on other facilities, and in light of the overall implications for the Fund's liquidity.

The establishment of a new facility would require decisions to be taken on a variety of questions, such as what repurchase period should apply, and a number of legal aspects would need to be dealt with. ^{2/} There would also be a need to coordinate its operation with other Fund policies, such as those related to the monitoring of implementation under stand-by and extended arrangements.

^{1/} Including, for purposes of discussion in this paper, the EFF.

^{2/} A new Fund policy to provide contingent financing along the lines described in this paper could be adopted by a simple majority vote, provided the repurchase period is the standard three- to five-year period, and the purchases float in the credit tranches and not in the reserve tranche, but a 70 percent majority would be required to establish the rate of charge. Also, as described earlier, consideration might need to be given to whether it would be useful to specify a repurchase period for contingent access that is different from the standard repurchase period, but this would call for an 85 percent voting majority.

b. Amended or expanded CFF framework 1/

Integration of the ECM into the CFF framework could take a variety of forms, involving various degrees of adaptation of CFF policy itself. It has been suggested, for example, that a window be created in the CFF (with an access limit of 75 percent of quota, phased into three tranches) to provide for contingent access, and that another window (with an access limit between 30-50 percent of quota) be maintained under the existing CFF framework to compensate for reversible export shortfalls. 2/ The possible approaches would need to be considered in relation to Fund policies on the CFF, which are under review at present.

This type of alternative could be seen as an extension of the CFF to cover other sources of external disturbances, and would be less costly to the borrowing member, since only ordinary resources would be involved; under enlarged access policy, the credit tranche alternative would involve a mixture of borrowed and ordinary resources. Also, under the existing CFF guidelines, countries without existing Fund arrangements would not be precluded from use, although an appropriate approach to be taken in these cases also would remain to be developed. This would include the framework under which the baseline scenarios and the contingent policy responses were to be developed. 3/

Under such an integrated approach, CF provisions--in the current or amended form--could apply to past shortfalls in export earnings (and excesses in cereal imports), and separate modalities could be worked out along the lines described earlier for contingent shortfalls of exports and other eligible current account components. However, building in adequate safeguards with regard to monitoring and differentiated access would involve far-reaching changes in CF practices.

1/ Aspects of this approach are also discussed in "Review of the Compensatory Financing Facility--Further Considerations," EBS/88/20 (2/3/88).

2/ See statement made by Mr. De Groote at the discussion on the review of the Compensatory Financing Facility, EBM/87/156 (11/17/87).

3/ The CFF is accorded a status different from tranche policies by Article XXX(c)(i)), namely, purchases and holdings resulting from purchases under it may be excluded for the purpose of determining a member's reserve position. If the list of contingent factors were confined to those factors associated with export receipts, the integrated facility could be regarded as a genuine compensatory financing for fluctuations in export receipts. As such, purchases and holdings resulting from purchases under it may float as under the CFF currently. If the integrated CFF were to compensate for contingent factors beyond export receipts, floating of purchases into the reserve tranche (as under the current CFF) would require an 85 percent voting majority.

c. The framework of credit tranche resources

An ECM within the framework of the credit tranches could involve varying degrees of specificity. It could be devised along the lines, for example, of the contingency mechanisms for Mexico in 1986. The general approach would require specification at the outset of a stand-by or extended arrangement of an amount by which access could be augmented, with appropriate safeguards. ^{1/} Such an approach would automatically integrate the ECM into the structure of the stand-by or extended arrangement. ^{2/} It would fit with the monitoring procedures under such an arrangement, and would have the flexibility of differentiated access and design on a case-by-case basis.

If contingency mechanisms were to be made available in the context of existing extended or stand-by arrangements, the question would remain of whether the ECM could apply to countries without such arrangements. Up to now, the Fund's policies in safeguarding the revolving character of its credit tranche resources have required a credit tranche or extended arrangement, and similar types of safeguards would appear to be required for contingent access. Practically, a member might be expected to request an arrangement as a first line of defense against contingencies. Thus in cases of enhanced surveillance, for example, willingness to take the necessary additional adjustment measures defined at the time of the program review might suggest the appropriateness of entering into an upper credit tranche arrangement, along with use of Fund credit. For practical purposes, therefore, a prerequisite would be clear-cut program assumptions in the context of a Fund arrangement against which contingent deviations could be assessed.

Provision of ECMs in conjunction with SAF or enhanced SAF arrangements might also be considered. Suitable procedures for these arrangements could be developed within the context of SAF and ESAF resources, albeit at the cost of complicating the process. It might be noted in this connection that flexibility to cope with unforeseen developments is being built into ESAF arrangements through emphasis on a build-up of reserves; access under an ESAF arrangement is also to be reviewed annually in the light of new circumstances.

^{1/} The procedure for Mexico involved automatic augmentation of basic credit tranche resources on the basis of compliance with performance criteria, which in turn were adjusted for the effects of changes in international oil prices as specified in the economic program supported by the stand-by arrangement. (An alternative approach, as discussed above, would be to activate augmentation in the context of a program review.)

^{2/} For example, the symmetric provisions of an ECM could be dealt with in a flexible manner within the credit tranches. Any reduction in the use of contingent resources in response to favorable external developments could take the form of a related change in the phasing and amount of the arrangement.

d. Access policy

Independently of the specific approach that is adopted, the development of a contingency mechanism would require decisions on the access limits to apply to contingent finance, which would need to be examined in the larger context of the existing structure of access limits under the relevant Fund facilities.

For a new facility, the question of access limits, including the relationship with CFF and credit tranche access limits, would need to be considered. Operation within the CFF would also require consideration of access policy for the two windows (contingency and exports/cereal imports).

Operation under tranche policies would raise the question of the adequacy of current access limits; for most countries, current limits under enlarged access appear to provide sufficient margin for initial use of contingency mechanisms, so that this question could perhaps be decided at a later stage, in light of experience. A question would also arise as to the relationship between access limits under the enlarged access policy and access limits under the CFF. If the contingent mechanism were to extend to exogenous factors of a nonexternal character (such as weather-related or other natural disasters), then a reconsideration of the Fund practice on emergency assistance might be called for.

Irrespective of the formal linkage among the relevant access limits, a further aspect arises when considering contingent access in individual cases. This relates to choices of access from the relevant Fund facilities and appropriate linkages. 1/ The possibility of double compensation would suggest that, at a minimum, drawings under the ECM related to deviations in export receipts and/or cereal imports should be offset against possible future CF purchases covering the same contingent period, and that related CF drawings during the contingent period be offset against maximum contingent access. 2/ A more difficult aspect concerns additionality of access among the relevant facilities. In

1/ In the Mexico 1986 stand-by arrangement, access if augmented by the maximum amount under the oil contingency would have been up to 129 percent of quota on an annual basis. This would have been in excess of the higher annual access limit of 110 percent under the enlarged access policy and would have required calling upon the exceptional circumstances clause. However, it would have been lower access than available under a combination of the basic access under the stand-by arrangement and the maximum CF purchase that Mexico might have qualified for.

2/ The contingency schemes in the 1986 arrangement with Mexico provide for an offsetting of any CF purchases during the arrangement period against contingent augmentation of the arrangement, and of any purchases under augmentation against maximum amount available under the CFF should Mexico make a CFF request.

order to provide adequate safeguards for use of the Fund's resources, an important consideration in determining contingent access in individual cases would be that such access must be compatible with the medium-term debt servicing capacity of the member. Such an assessment would need to include the member's debt structure generally and specifically vis-à-vis the Fund. This might suggest that in assessing the appropriate contingent access, some consideration be given also to outstanding and prospective use of Fund credit from all facilities taken together notionally.

2. The implications for the Fund's liquidity 1/

Estimates of potential demand for an ECM are difficult to make, given the uncertainties of near-term external developments and before the modalities of an ECM have been sufficiently developed. Nevertheless, using some highly simplified assumptions, it has been possible to make some illustrative projections of the ranges of conceivable use and the broad implications for the Fund's liquidity of the three alternative contingency mechanisms outlined above. Although these ranges are highly tentative, their impact on the Fund's liquidity position could be regarded as an element in determining the appropriate level of access and the financial terms of an ECM. It should be emphasized that no assumption has been made, other than for illustrative purposes, as regards the financing of such a mechanism--whether from the Fund's ordinary resources or from borrowing. The manner in which the mechanism would be financed could, of course, have a bearing on the liquidity of the Fund and on the financial terms of the mechanism.

The projections set out below cover two sample groups of member countries and are based on two different levels of possible activation. 2/ The outcomes would obviously depend on the decisions that would need to be taken on access policy.

One approach to estimating the potential additional demand would be to assume that contingent financing would be committed to each member with a stand-by or extended arrangement in an amount equivalent to, say, 50 percent of the amount of the arrangement. (This amount could come from a separate external contingency facility, the CFF, or from the credit tranches, depending on which of the alternatives described in Section VI.1 applied.) On this assumption, the additional demand in 1988 would fall within a range of about SDR 0.5-2 billion, with the

1/ Prepared by the Treasurer's Department.

2/ The first sample group consists of the 39 members that in the current work for the next liquidity review have been projected to conclude an arrangement with the Fund in 1988 or 1989. The second group includes the members in the first group and an additional 38 members that have credit outstanding to the Fund. Two probability factors, 0.3 and 0.5, were chosen to estimate actual activation of the ECMs.

lower figures based on the smaller sample of countries and the lower rate of activation. 1/

Another approach to estimating potential additional demand would be to consider what might happen under each of the three alternatives, making assumptions about access policy for each alternative and taking into account the probability that might be attached to the use of Fund resources under that alternative. For example, if it were assumed that contingent access would be granted up to the limit applying to the particular facility involved, the following estimates could be derived. (1) For the credit tranche alternative, annual access up to the 90 percent limit could result in a range of about SDR 1-2.5 billion. This alternative would involve a mix of financing from ordinary and borrowed resources, if it is assumed that resource use would be in accordance with the present policy of financing the use of Fund credit under arrangements; it is estimated that about one-half would be financed with borrowed resources. (2) In the alternative where an ECM was an integral part of the compensatory financing facility, and if for example access was up to 75 percent of quota, this could result in additional demand in the range of about SDR 1-3 billion. 2/ (3) The additional demand involved with an independent facility, allowing for possible offsetting reductions in demand for CFF resources, would be in a similar range. 3/ The timing and amounts of use of resources under a new facility are much more uncertain than if the ECM were linked to stand-by or extended arrangements or the CFF. It is assumed that only ordinary resources would be used in the two latter alternatives.

Taking into account projected use of Fund resources under existing facilities for 1988 and including the estimates discussed above for alternative versions of the ECMs, the Fund's stock of uncommitted ordinary resources could decrease from SDR 25.7 billion (projection in the fall liquidity review) to within a range of about SDR 25 billion to SDR 23 billion by the end of 1988. However, the fall in the level of the Fund's ordinary resources does not assume any major unforeseen developments as regards the general levels of members' demand for the Fund's resource or the availability of resources to the Fund. Under the alternative of the ECM being a part of the credit tranche policies and that such an ECM would be financed by the use of both borrowed and ordinary resources, the estimated use of borrowed resources (between SDR 0.5 billion to SDR 1.0 billion) would not exceed the amount of uncommitted borrowed resources that was projected in the last liquidity review at about SDR 2.4 billion at end 1988.

1/ With the symmetric provisions described in Section III.3 above, there would be some offset to this additional demand through reduction in use of Fund resources in arrangements with countries experiencing favorable developments.

2/ See discussion in Section VI.1(b) above.

3/ Although an access limit for a new facility has not been considered, the limit was set at 100 percent of a member's quota for the purpose of these calculations.

Accordingly, the alternatives considered in this paper as regards an external contingency mechanism would not appear to pose substantial difficulties from the point of view of the Fund's liquidity in 1988. However, the year-to-year working of such a mechanism and the manner in which access is applied within the agreed limits could, over time, significantly impact on the Fund's liquidity and, therefore, raise issues regarding the manner in which ECM might be financed over the medium term.

VII. Summary of Issues for Discussion

This paper has been prepared to facilitate a preliminary consideration of external contingency mechanisms (ECMs) in Fund arrangements. Such a consideration would seem to be appropriate in view of the recent experience with sustaining Fund-supported adjustment programs in a difficult and volatile external environment.

Section II sets out a number of general considerations bearing on the potential role of ECMs in Fund-supported adjustment programs. Unforeseen exogenous developments frequently have led to difficulties in maintaining implementation of Fund-supported programs. While programs desirably include sufficient margins to cover some degree of deviation from program assumptions, larger fluctuations may require major policy adaptations to keep the program on track. When these cannot be developed quickly, the Fund's financial support may be interrupted. Additional Fund financial support could be potentially available through a request for augmentation of the arrangement or through CFF drawings, but neither of these can provide as prompt and precise a response as would be desirable. Executive Directors may therefore wish to consider the merits of ECMs as a means of enhancing the effectiveness of adjustment programs. By giving additional confidence to members of flexibility in the Fund's support, they may be encouraged to enter into more ambitious and far-reaching programs. The remaining sections of the paper set out a range of issues that would arise in developing ECMs.

Directors may first wish to consider the basic features that are critical to the effectiveness of an ECM as described in Section III:

- (1) Provision for an appropriate mix of adjustment and financing would involve a number of operational questions, including (a) a focus on relatively major disturbances; (b) contingent financing of only a part of the impact of unforeseen exogenous disturbances; (c) expressing contingent access as a fraction (say, 50 percent) of basic access under the associated arrangement; (d) activation of contingent financing quasi-automatically or through reviews; and (e) the role of other creditors.

(2) The desirability of symmetry in the application of an ECM suggests that part of the gains from unforeseen favorable developments should be directed to strengthening the external position, as through augmentation of gross reserves and reduced reliance on foreign borrowing, including lower use of Fund resources.

(3) The application of an ECM would presumably be limited to financing shortfalls that resulted from factors beyond the control of the member.

Directors may also wish to address the three major technical issues in the design of an ECM set out in Section IV:

(1) A first requirement would be to establish baseline projections for key variables through the life of the arrangement or through the program year. One possibility would be to use projections derived from the World Economic Outlook to be supplemented as appropriate by country-specific projections.

(2) With respect to coverage, an approach that focuses on the net effect of unanticipated changes from assumed values for the exogenous component of key current account variables would seem to have several advantages, although it might be somewhat more complex than an approach based on a global indicator.

(3) In calculating the exogenous component of contingent deviations, a formal framework such as that suggested in the paper could be helpful, even though it would need to be supplemented by judgmental estimates in many cases.

Directors may also wish to comment on the issues raised with respect to possible coverage of unforeseen changes in interest payments as set out in Section V. Should ECMs cover deviations stemming from unforeseen changes in nominal rates or real interest rates? Should deviations associated with unforeseen changes in the risk premium or a real increase in external debt be covered? Should any such contingency mechanism apply to gross interest payments, or only to payments net of interest receipts?

Directors may wish to consider the relative merits of the three possible operational structures for an ECM set out in Section VI: (1) a new facility; (2) operation within the CFF suitably amended or expanded; and (3) operation in the framework of the credit tranches. Section VI also considers the implications for access policy, including the need for appropriate offset of use under an ECM against the CFF to avoid double compensation.

The potential demand for contingent Fund resources is difficult to estimate before the modalities of an ECM have been sufficiently developed, but the alternatives considered in this paper would not appear to pose substantial difficulties from the point of view of the Fund's liquidity in 1988. Over time, however, there could be a significant impact on the Fund's liquidity and the manner in which an ECM might be financed over the medium term would need to be considered.

