CONFIDENTIAL

INTERNATIONAL MONETARY FUND

Committee of the Whole on Review of Quotas

Meeting 88/1

10:00 a.m., January 11, 1988

M. Camdessus, Chairman

Executive Directors	Alternate Executive Directors
A. Abdallah	E. T. El Kogali
Dai Q.	
C. H. Dallara	
	J. Prader
	R. Morales, Temporary
	A. M. Othman
G. Grosche	
J. E. Ismael	J. Reddy
A. Kafka	J. Hospedales
	C. Enoch
M. Massé	
	C. V. Santos
Y. A. Nimatallah	I. A. Al-Assaf
	L. Filardo
J. Ovi	
H. Ploix	
G. A. Posthumus	G. P. J. Hogeweg
C. R. Rye	
G. Salehkhou	O. Kabbaj
A. K. Sengupta	
K. Yamazaki	S. Yoshikuni
S. Zecchini	

L. Van Houtven, Secretary and Counsellor
K. S. Friedman, Assistant

Also Present

Exchange and Trade Relations Department: C. Puckahtikom. External Relations Department: D. D. Driscoll. IMF Institute: O. B. Makalou. Legal Department: H. Elizalde. Research Department: A. D. Crockett, Deputy Director; P. Isard, H. C. Kim. Treasurer's Department: D. Williams, Deputy Treasurer; P. B. Clark, S. I. Fawzi, R. Feldman, D. Gupta, Y. Kawakami, I. Kim, O. Roncesvalles. Personal Assistant to the Managing Director: H. G. O. Simpson. Advisors to Executive Directors: P. E. Archibong, E. Ayales, A. G. A. Faria, S. M. Hassan, Khong K. N., K.-H. Kleine, A. Ouanes, P. D. Péroz, M. Pétursson, D. C. Templeman, A. Vasudevan. Assistants to Executive Directors: N. Adachi, J. R. N. Almeida, R. Comotto, F. Di Mauro, W. N. Engert, S. K. Fayyad, V. J. Fernández, P. Gorjestani, M. A. Hammoudi, M. Hepp, L. Hubloue, A. Iljas, S. King, K. Kpetigo, V. K. Malhotra, C. Noriega, S. Rebecchini, S. Rouai, G. Schurr, G. Seyler, B. Tamami, E. L. Walker, Wang X.

1. NINTH GENERAL REVIEW OF QUOTAS - QUOTA CALCULATIONS, ISSUES IN CONNECTION WITH EIGHTH GENERAL REVIEW, AND VARIABLES IN QUOTA FORMULAS

The Executive Directors, meeting as a Committee of the Whole, considered staff papers on revised quota calculations (EB/CQuota/87/5, 12/22/87), issues arising in connection with the Eighth General Review of Quotas (EB/CQuota/87/4, 12/21/87), and variables in the quota formulas (EB/CQuota/87/3, 12/7/87).

Mr. Yamazaki made the following statement:

> As I have stated repeatedly in the past, the distribution of Fund quotas is clearly inconsistent with world economic realities. The calculated quota shares presented in the staff papers clearly show the wide deviations between actual and calculated quotas. The Fund should act at the earliest possible date to rectify the present unjustified situation to the fullest possible extent.
>
> Quotas are the basis on which each country's membership rights and obligations are established. Leaving the present huge discrepancies between actual quota shares and member countries' relative economic strength could impede the smooth functioning of the Fund's operations. Moreover, adequate capitalization of the Fund is urgently required if the institution is to be able to fulfill its functions in the coming years. The Fund continues to play a crucial role in the world debt strategy. Its responsibilities have been great and will become even heavier. If the Fund is to perform its duties fully, it is absolutely necessary that its liquidity be strengthened and its capital base reinforced; that objective can be achieved, in principle, through capital increases. My authorities are fully prepared to contribute to an increase in quotas to an extent that is commensurate with Japan's economic strength in the world economy.
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> Today's discussion is to examine some of the technical aspects of the Eighth General Review rather than to stipulate the desirable direction of the Ninth General Review. I generally agree with the staff's views on this subject and wish to make a few general comments.
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> I firmly believe that the customary practice of valuing official gold holdings at SDR 35 per ounce should not be changed. The present practice should be maintained in every respect, including the valuation of the ECU counterpart of gold holdings; I agree with the staff that member countries' ECU holdings should be counted among reserves.

Some of the underlying reasons given for incorporating new variables in the quota formulas are convincing, although I recognize that statistical issues will arise if new variables are included. For example, it seems reasonable to pay due attention to the increasing role that capital transactions have been playing in the international monetary system. In addition, it would be reasonable to replace current payments with the larger of current payments or current receipts in the quota formulas.

As to the data base that should be used in making quota calculations, it goes without saying that the distribution of quotas reflects current economic realities. Therefore, the quota calculations should be based upon the most up-to-date data. In the event of a delay in the completion of the quota review, the staff should revise the quota calculations on the basis of the most updated available data. There is no reason to have quota calculations based on obsolete data when updated data are available. The Fund is supposed to address itself to current and likely future problems facing the world economy; it is not meant to solve problems that were evident five years in the past. The Fund must be fully equipped financially to tackle current problems.

I will now comment on the work schedule that should be followed with respect to the Ninth General Review. While I support the Chairman's statement on the work program of October 20, 1987, under which the Board of Governors is to adopt a Resolution requesting the Executive Board to continue its work on the Ninth General Review, I wish to stress that the work should be expedited with a clear view to completing it at the earliest possible date. We should explore every possible way to facilitate the early conclusion of our work on the Ninth General Review. At the same time, we should keep every door open, including a wide variety of methods for the distribution of the quota increase in order to ensure a fairer and more equitable distribution of quotas by bringing the actual quota shares nearer to calculated quota shares while leaving open the possibility of selective or special quota increases as necessary. The staff should prepare a work program covering the period through the completion of the Ninth General Review, as was done for the Eighth General Review.

The present staff paper contains a neutral description of the technical aspects of the Eighth General Review; it does not include any policy implications for the Ninth General Review. The staff should further explore methods for allocating the overall increase in quotas so that the formulas yield quotas that reflect more properly than hitherto the relative economic strength of individual member countries.

Mr. Nimatallah made the following statement:

Three issues concerning quotas need to be addressed during the present discussion: the general distribution of calculated quotas among groups of countries; the formulas and the coefficient assigned to each variable in the formulas; and possible selective adjustments of individual quotas.

As to the first issue, the main question to answer today is whether the general structure of calculated quotas is satisfactory. In my view, the structure is satisfactory and there is no compelling reason to change it. In particular, I see no reason to reduce, at the present stage, the total share of quotas for developing countries as a group, for three reasons. First, there are still large imbalances, particularly in the developing countries, and reducing the quotas of this group at the present stage would reduce their access to Fund resources. Second, as the developing countries will be the major borrowers from the Fund in coming years, it makes sense to let their voice be heard in the Fund with the same strength as other members. Third, given the considerable interdependence among industrial and developing countries, it is prudent for the industrial countries not to give any less importance to their trading partners in the developing world than to other countries, as doing so would negatively affect the industrial countries themselves.

At the same time, I see no reason to restructure the distribution of quotas in favor of the developing countries, for several reasons. First, the Fund's usable resources come mainly from the industrial countries, and it would be difficult for the developing countries to provide the Fund with enough liquidity without resorting to borrowing by the Fund. Therefore, if the membership continues to insist that ordinary resources should be the basis for Fund operations, the present structure of the distribution of quotas should be maintained. Second, greater access to developing countries is already ensured through the special facilities and the enlarged access policy. The Executive Board has been aware of the need for greater access in periods characterized by large imbalances in the world economy, and to that end the Board has increased the access limits by multiples of quotas and has established special facilities, such as the compensatory financing facility, the structural adjustment facility, and the enhanced structural facility. Third, the need for more votes for developing countries to enable them to increase their participation in the decision-making process was partly met with the establishment of the basic votes mechanism. There is scope for looking again at that mechanism to either enhance it, or support it with something similar, without resorting to a change in the general structure of quota distribution at the present stage.

The quota formulas served well during the Eighth General Review and continue to help to produce satisfactory calculated quotas under the Ninth General Review. I see no reason to change any of the variables or the method of calculation. The present measure of variability is still a reliable measure of external sector instability and provides an element of stability in the general structure of calculated quotas. Therefore, I fully agree with the staff that, on balance, the measure of variability is working satisfactorily as intended and there is no reason to modify that variable or its coefficient.

The staff has clearly shown that the introduction of additional variables proposed during our previous discussion on this question either would not make any difference in the outcome or would tend to drastically change the general structure of the distribution of quotas, something that is undesirable at the present stage. Therefore, the formulas, the variables in them, and the coefficients assigned to each of them should remain intact for the Ninth General Review of Quotas.

The next question is the best means of dealing with individual countries, like Japan, that have gained increased economic weight and therefore wish to narrow the discrepancy between their calculated and actual quotas. Table 5 in the staff paper contains revised quota calculations showing that Japan is the only member with a large discrepancy between its calculated and actual quotas. There is no need to change the quota formulas in order to meet Japan's need to reduce the present large discrepancy between its actual and calculated quotas. Any member that feels that there is a large discrepancy between its present and calculated quotas has the right to request a selective adjustment in its quota, and those countries should be adequately accommodated. I hope that the Japanese authorities will make such a request, and that the Committee of the Whole on the Review of Quotas would not have to spend a great deal of time on the method of quota calculations, as happened during the Eighth General Review. The Fund has experience in this area, and there are ways of addressing individual cases without necessarily tampering with the general quota structure. During the previous meeting of this Committee, I invited the staff to look into ways of accommodating, either fully or partly, as the Committee might see fit, members seeking to narrow the discrepancy between calculated and actual quotas, and I encourage the Committee to accommodate those countries.

Mr. Ismael made the following statement:

During the previous meeting of this Committee, in July 1987, this chair expressed the view that the techniques and procedures that were used for the Eighth General Review were generally satisfactory and could usefully be employed for the Ninth General Review. Like the staff, I believe that the variables used in the quota formulas for the Eighth General Review and the coefficients for these variables should remain unchanged for the Ninth General Review.

I will now comment on some of the ideas that were raised by Executive Directors during the previous meeting, which are discussed in EB/CQuota/87/3. It has been suggested that, instead of using the value of GDP for one year, an averaging method should be used to reduce the impact of cyclical variations in GDP and in exchange rates. Arguments can be made for and against using an averaging technique instead of data for a single year. In the final analysis, however, it makes little practical difference in the distribution of quotas among the major groups of countries. Therefore, I can go along with the staff's preference for using data for a single year rather than an average, although I can also go along with the averaging technique, if that is the preference of the majority of Executive Directors.

During the previous discussion on quotas, this chair expressed its preference for a uniform valuation method for all forms of reserves, including gold. The staff paper notes that no major change in the distribution of quotas is expected to arise from the use of a market valuation for gold. Therefore, I can go along with the continued use of the relevant procedure used for the Eighth General Review. However, the question of the valuation of gold in Fund operations should be reviewed independently of the present quota exercise. Such a review was last conducted in 1979, and the time may be ripe for another review, in 1988.

Variability plays an important role in the quota formulas, especially for developing countries that rely on relatively few export commodities whose prices tend to fluctuate considerably. The case for retaining variability as a component in the quota formulas is strengthened by the continued uncertainty associated with weak world economic growth, volatile exchange market developments, and the protectionist measures in industrial countries. Indeed, various staff studies, including the most recent one on commodity price baskets, show that commodity prices have been far more volatile since the early 1970s than they were in the 1950s and 1960s. Therefore, there are no compelling reasons either to introduce technical modifications to the measure of variability, or to reduce the coefficient for variability, as was done on the occasion of the previous quota review. I agree with the staff that the present measure of variability is working satisfactorily, and that no changes are required at this time. If there should be any change, the coefficient should be increased to the level that prevailed before the latest reduction.

Suggestions have been made to introduce new variables in the quota formulas, such as variables that give weight to financial importance of member countries, capital transactions, and poverty. We should keep the quota formulas as simple as possible and avoid including new variables that are influenced by variables that are already included in the quota formulas. The quota formulas should be restricted to the variables that were used for the Eighth General Review.

The staff paper on the major issues with respect to the Eighth General Review contains useful information that I hope will speed up the present quota review, since we might well face similar issues during the present review. I wish to reserve my position in this area until some of the specific issues are brought to the Committee's agenda in coming months. At this stage, I wish to stress that quotas are the key determinant of the Fund's liquidity, access to Fund resources, and voting power. It is important to take into account all these conflicting functions of quotas and to reconcile them in our decisions on the size of the quota increase and on the distribution of the increase between equiproportional and selective increases.

Mr. Prader made the following statement:

I fully agree with the general thrust and conclusions of the staff papers. On the whole, these conclusions point in the same direction as the views that I expressed during our previous discussion in July 1987.

The variables in, and the composition of, the formulas during the Eighth General Review clearly and fairly reflected changes in countries' economic structures while maintaining a satisfactory degree of stability in the relative contributions of the individual economic variables. For this reason, I see no compelling reason to seriously consider possible refinements of the present variables or the addition of new variables. Indeed, such an effort would unnecessarily prolong the already slow process of mustering a broad consensus on the desirability of a quota increase by diverting our attention from the more fundamental questions of the size of the Fund, the distribution of a quota increase among the membership, and the payment modalities of the quota increase. Moreover, repeated tinkering with the quota formulas would impair the reasonable degree of continuity in calculation methods that is required to maintain confidence in the integrity of our decision-making process.

The arguments presented in the staff papers generally support these views. The staff's further thought on the variables in the quota formulas clearly shows that any of the suggested changes in or additions to the present variables would either produce only negligible results, or cause almost insurmountable statistical and methodological problems, or alter the distribution of calculated quota shares so drastically that it could not gain broad acceptance. The statistical elaborations in the staff paper lead once more to the conclusion that the present variables and calculation methods strike an appropriate balance between continuity and change, and between individual characteristics of each member groups and the overall applicability of the formulas to the membership as a whole.

The problem of multicollinearity that automatically arises when financial or capital variables are added to the present parameters also demonstrates that the present formulas already provide fairly complete coverage of all the economic information relevant to the establishment of quotas. Therefore, the staff correctly observes that the addition of new financial or capital variables would probably blur, rather than complete, the explanatory value of the present variables.

I have even more fundamental reservations about the inclusion of new variables in the quota formulas. Basically, the quotas should reflect a member country's relative ability to participate effectively on a revolving basis in the Fund's balance of payments operations, and the GDP and current account variables now used for quota calculations fulfill this function adequately. The addition of such new variables as financial or poverty parameters would tend to obscure the basic fundamental nature of members' quotas, and because these parameters are not universally applicable, their value would erode over time, and they would therefore not enhance the cooperative character of the Fund's operations, that quotas are supposed to reflect.

The staff's historical account of the Eighth General Review shows that during the period of that review a broad consensus was reached that changes in the calculation methods should be pursued only on the condition that they would not cause any significant departure from the results of calculations using the customary methods. That strong and justifiable opposition to adventurous experimentation through the inclusion of variables that would weaken rather than consolidate the continuity and universality of the quota formulas is equally appropriate in the context of the present quota review, and I am firmly convinced that the examination of the variables issue need not be continued.

We should start as soon as possible an in-depth examination of the issues related to the distribution of an overall quota increase. Experience under the Eighth General Review shows how sensitive this issue is, and it is therefore important to make sufficient progress on it by the time we begin substantive discussions on the size of the next quota increase. In addition, the set of principles that served as the basis for the distribution of the quota increase under the Eighth General Review should be used as guidelines for our initial discussions on the distribution of the quota increase under the Ninth General Review.

The staff has reminded us that protracted discussion of the size of the Fund during the Eighth Quota Review took a decisive turn only after the onset of the international debt crisis. I hope that we will not have to wait for another exogenous shock before commencing substantive discussions on the next quota increase. Instead of waiting, we should closely watch the creeping deterioration of the present five-year-old payments crisis, highlighted by the most recent world economic outlook exercise, and be thinking about how a larger Fund could contribute to a structural improvement in the international payments system. In the light of these considerations, I fully support Mr. Yamazaki's idea of having the staff prepare a work program for the early completion of the Ninth General Review.

The separate quota calculations that are being established for Belgium and Luxembourg have caused my Belgian authorities to feel concern about the best possible reconciliation of this exercise with the principles of the monetary association between the two members. My Belgian authorities appreciate the staff's patient cooperation in this delicate matter and count on the staff's assistance and advice as they pursue the matter with their Luxembourg partners.

Mrs. Ploix made the following statement:

Three basic principles should have an important bearing on the Ninth General Review. First, a central objective of the exercise should be to provide for a substantial increase in Fund resources. The Fund would then be in a position to enhance its financial support to member countries that are implementing adjustment policies. Second, there should be a new quota structure that adequately reflects the relative economic position of member countries. This objective is particularly relevant for industrial countries; therefore, existing quotas should not be given excessive weight compared with calculated quotas. Third, the appropriate treatment of developing countries should be borne in mind. The overall quota share of developing countries should not be curtailed as a result of the Ninth General Review. Concern about this issue is warranted, since most of the calculations in the staff paper would lead to an increase in the share of industrial countries and to an even greater increase in the share of oil exporting countries. Conversely, primary product exporters and, to a lesser extent, exports of manufactured goods would experience a decline in their relative weight. Some kind of corrective mechanism should therefore be devised to avoid this negative outcome.

The ratio between actual and calculated quotas under the Ninth General Review should be the same as the one for the Seventh General Review, namely, 60 percent. This would result in a doubling of the size of the Fund, with quotas totaling SDR 198 billion. If a consensus on this objective proves difficult to reach, my authorities could go along with the 43 percent ratio that prevailed during the Eighth General Review; it would involve a 60 percent increase in the size of the Fund.

The valuation of gold holdings at a market-related price must be given serious consideration with a view to strengthening the contribution of reserves to calculated quotas. The staff recommends that this practice be extended to all other Fund operations if it is adopted for the quota review; my authorities see no intractable difficulty with this approach. Moreover, in the context of the ongoing thinking on the functioning of the international monetary system, the adoption of a market-related price for gold holdings would not necessarily be meaningless.

In order to avoid a relative increase in the industrial countries' quota share as a result of the adoption of a new price for gold holdings, two corrective measures could be envisaged. First, a "poverty index" could be included in the quota formulas, on the understanding that the weight attached to this variable would be modest. It is clear from the staff paper that the impact of this new variable on quota calculations is potentially far reaching. Therefore, it seems reasonable to limit any destabilizing effect that it would have while retaining the beneficial effect of this variable on developing countries' share.

The inclusion of the variability of imports could also be used as an offsetting element in favor of developing countries. The staff correctly emphasizes the technical difficulties in introducing this new variable. Nonetheless, this approach would yield some unambiguous results, as is illustrated in the third line of Table 8 of EB/CQuota/87/3. The best way to take account of the variability in current payments could then be further explored by the staff.

Calculated quotas should be given adequate weight in the distribution of the overall quota increase in order to adjust the structure of quotas to actual current economic positions.

Since the usual five-year period for the present review of quotas will expire in March 1988, a decision on the present review must be made by then. If, as now seems likely, no decision on an overall increase can be reached by then, my authorities would prefer to extend the Ninth General Review rather than to open a new five-year period.

Mr. Dallara made the following statement:

We welcome this opportunity to review further the quota formulas used in the previous quota review and to consider the possibility of modifying the formulas taking into account the present state of the world economy and the Fund's role in it.

We welcome the background paper of the Eighth General Review. Although one can always have a slight difference of view on the various factors that ultimately led to the agreement that was reached, the Executive Directors have a better view of where to go in this review.

In considering the distribution of quotas among members, some countries that are likely to be users of Fund resources rather than providers of those resources, are understandably concerned about their access to Fund financing in the coming years. At the same time, it is important to keep appropriately in mind not only the financing needs of individual member countries or groups of countries, but also the liquidity needs of the Fund during the coming period.

While I understand the reluctance of many Executive Directors and the staff to consider substantial changes in the quota formulas, including the introduction of fundamental changes in the variables or any new variables, my authorities tend to believe that the staff has perhaps been too reluctant to consider changes. After all, there is no a priori reason why changes that might affect the so-called stability of the distribution of calculated quotas are necessarily undesirable, since the calculations are made to gauge the relative economic size of member countries, and since stability in the distribution of calculated quotas is not an end in itself. There is no a priori reason to assume that the relative sizes will not change over time in response to changing economic conditions. I understand the reluctance of some Executive Directors to move aggressively to make changes in these areas.

As to the GDP variable, on balance we would conclude that, while there is some validity to the argument in favor of using some modest averaging, the weight of the argument seems to be in favor of not changing the way in which this variable enters into the quota calculations. We observed with particular interest that, over time, any distortions that may be introduced by including the GDP variable for a single year may well be balanced out. In that connection, it is useful to note that the data that were used as background information for the Eighth General Review resulted in the introduction of GDP for the United States at an exchange rate that perhaps was rather low; the data for the present review are based on a much higher dollar exchange rate. Thus, over time, it would appear that shifts in this variable have somewhat balanced out.

We do not have particularly strong views on the valuation of member countries' gold holdings. On balance, we are inclined to believe that gold should be valued in all cases at the conventional price of SDR 35 per ounce. I am willing to consider this matter further, if other Executive Directors attach particular importance to it.

We recognize that variability plays an important role in the calculations; it can be a significant factor reflecting potential financing needs. But temporary instability in a member country's economic situation should not be confused with structural change. It might be seen as an anomaly that the contribution of variability to calculated quotas has increased from 14.1 percent under the Eighth General Review to 16.1 percent under the Ninth General Review. In addition, variability constitutes more than 50 percent of the weight in the calculated quotas of a number of countries. On balance, therefore, it would be worthwhile to explore the possibility of some further reduction in variability. There need be no change in the way in which variability is calculated, as the staff has argued convincingly that reopening that issue may not be productive, but a reduction in the weight attached to variability might be appropriate, and further work on this particular issue should be undertaken.

As the staff has noted, the data problems involved argue strongly against the inclusion of financial and capital account data in the quota formulas. In addition, we recognize that the capital account is, to a significant degree, a mirror image of the current account. Nevertheless, international financial flows have grown exponentially since the 1970s, and the importance of financial variables is perhaps not adequately reflected in the present quota formulas. Therefore, Tables 2(a) through 2(c) in EB/CQuota/87/3 are interesting, as they attempt to capture the relative importance of financial variables in quota calculations. The inclusion of such a variable could create a problem with respect to multicollinearity, but the same problem could arise with the introduction of some other variables, and the staff paper suggests that the problem could be mitigated somewhat through the use of the approach underlying Table 2(c). With respect to an appropriate measure, the staff tried a number of different possible variables, the denomination of exchange reserves being one. It would be interesting to explore the possibility of a composite financial variable that takes into account a number of different variables that are measured independently in the staff tables; further work on this particular possibility should be undertaken.

I understand the reasons why some Executive Directors favor the inclusion of a poverty index and I have some sympathy for the concerns that are reflected in the proposals. However, on balance, we agree with the many other speakers who said that it would be inappropriate and certainly, in current circumstances, unnecessary to introduce a poverty index directly into the quota calculations. I take this position in the light of the various efforts that have been made through access policies and special facilities designed to provide special assistance to low-income countries facing payments problems, and in the light of the fact that resources lent on the basis of any quota increase would of course be provided on the Fund's traditional terms and conditions--short- to medium-term credit at market-related interest rates. It is not clear that the Fund would be doing low-income countries or itself a service in making a special effort to expand access to that particular kind of financing. Therefore, on balance, I am inclined not to move in the direction of using a poverty index.

I support the retention of the current practices with respect to current account variables and the number of quota formulas. The issue of the treatment of international interest payments and receipts, particularly with reference to the United States, has been complicated. The staff continues to use only net interest payments of receipts and to assume that all international interest payments and receipts are of the offshore variety. I continue to have some difficulty with this approach, and my authorities have made estimates in this area for the United States that were not available to the staff when its paper was prepared. Therefore, this question should be kept open until we have been able to explore it further on a bilateral basis. This exploration should not unduly delay the Executive Board's consideration of quota-related matters.

I agree with previous speakers who suggested continuing the present quota review, if necessary. Indeed, it would be inappropriate for the Board to attempt prematurely to bring this discussion to a close, in light of the present stage of the discussion. On balance, I prefer not to adopt a specific timetable for the present quota review in the Resolution, as the Executive Directors have not yet formulated an adequate consensus on what such a timetable might be. However, I am prepared to consider such a timetable, if it were clearly viewed by the membership as being realistic.

Mr. Enoch made the following statement:

The general position of this chair on the Ninth General Review was set out during the discussion in July 1987. While I recognize that the present quota formulas are not perfect, they do represent a reasonable compromise between the various factors and interests involved. As this chair stated during the previous discussion, there is no need to modify the formulas, and I found little in the staff papers to lead me to change that position. The staff papers clearly show that many of the modifications that were proposed during the July 1987 discussion were actually examined in considerable detail during the Eighth General Review. There is no need to waste time reopening these issues, particularly in view of the heavy pressures on the staff, unless there is clear evidence of widespread support for particular changes that would have a significant influence on the outcome.

Turning to some specific issues, one can easily see the theoretical case for using some form of averaging of GDP figures both because it should avoid abrupt fluctuations in the relevant values and because it would be consistent with the way in which trade data are used in the formulas. On the other hand, the possible distortions caused by using a single year's GDP data will tend to even out over time, in practice, changing to averaged data would not seem likely to make much difference in the outcome.

The valuation of gold holdings is a difficult issue. It would be strange to value gold in the quota formulas at a market-related rate while continuing to value gold for the purposes of the Fund's accounts at the old official rate. If we are to pursue this issue further, we will need to take a fundamental look at the whole question of the role of gold in the Fund.

I am not entirely convinced by the staff's argument against making further alterations in the variability coefficient. In particular, I do not readily accept the argument that the variability coefficient has worked well because it has helped to prevent a marked change in the distribution of calculated quotas. In changing calculated quotas we inevitably take into account in an informal way the distributive consequences, but I doubt whether this is a good way of deciding whether the formulas appear to be intrinsically sensible. In that connection, the staff argues that, although the variability coefficient has produced some odd results in the past, it has not done so in the main in the most recent period. While that conclusion may be slightly reassuring, there is no doubt that the present measure of variability can produce surprising results in some situations. Therefore, although I continue to believe that we should not reopen the formulas on this occasion, I also feel that if there is a strong desire to undertake further work in various areas, this should be one of them.

I have some reservations about the approach adopted by the staff to the list of variables that could be added to the formulas. The procedure of deriving the weights by minimizing the deviations of calculated from actual quotas may be a useful guide in certain circumstances, but it is not the only plausible approach. The fact that there are statistical difficulties in trying to add new variables using this method need not automatically mean that those variables are not worth considering. If we have decided that the existing formulas do not take up an important aspect of the underlying magnitudes that they are supposed to capture, then the appropriate methodology is surely to decide on theoretical grounds how important the new factor is and then weight it accordingly.

If there were to be a strong consensus in favor of reopening the issue of the formulas, I would argue strongly for including financial variables. Moreover, although GDP is an important measure of a country's importance in the world economy, it does not reflect all aspects of this concept of importance. Countries with very well-established financial markets may well play a larger role in the world economy than their GDP figures alone would indicate. Furthermore, in certain circumstances, relatively developed financial markets may make a country more vulnerable to external developments and thus potentially placing the country in greater need of Fund support. As the staff has noted, these factors are already taken into account in allocating weights in the SDR valuation basket.

One can of course make various theoretical arguments about which of the financial variables considered by the staff would be the most appropriate. Such factors as banking transactions on a gross basis, the size of capital markets, and foreign exchange transactions would be particularly appropriate to look at, as they might have a bearing on countries' vulnerability to external factors.

I have considerable reservations about the concept of a poverty index. This index seems to be inappropriate for a monetary institution, which the Fund should certainly remain. In addition, it is not clear to me that a poverty index is necessarily well correlated either with the ability of a member to support the Fund, or the member's need to borrow from the Fund. As the staff suggests, if current access levels are too low, the solution is to change those levels.

I was interested in the idea of reducing the number of formulas. There can be little doubt that the present system is complex and difficult to understand. If we are to do further work on the formulas, I would therefore be inclined to consider the idea of using only the Bretton Woods and M4 formulas, as the staff has suggested.

I continue to believe that it would be unwise for us to reopen the question of the formulas at this time. Not only are we unlikely to be able to reach agreement on any major changes, but also this work will inevitably take an enormous amount of Board and staff time. Before we move down this path, we would need to be sure that there is a reasonable chance that we would be able to reach agreement on changes in a specific area. I recognize that not everyone may share this view, and I have therefore suggested some areas where further work should be done if these issues are reopened. A number of Executive Directors have already stated their wish not to reopen the formulas and not to include additional variables in the formulas. Given that general view together with indications of possible changes, there is perhaps a danger that the Executive Board might commission unnecessary and probably time-consuming work by the staff. In the light of the request by some speakers for a work schedule for the Ninth General Review, we could perhaps meet again on another occasion to review conclusions that have been reached at the present meeting and to identify further staff work. On that occasion we could determine there is sufficient demand by Executive Directors for work in particular areas before commissioning a whole series of new staff papers that the majority of the Executive Directors might in the end not find particularly interesting.

Mr. Kafka made the following statement:

In the staff papers before us the question of the size of the Fund is, quite properly, addressed only indirectly. However, it is worth repeating, and it is surely significant, that the total of calculated quotas according to the present method of calculation is almost four times the size of actual quotas. Another significant fact is the decline in the relationship both between quotas and total reserves, and quotas and the value of world trade. We must ensure that the Ninth General Review makes real progress toward the goal that we proclaim at all times, namely, to make quota resources the Fund's method of financing without sacrificing the Fund's ability to operate on a sufficiently large scale. The present approach of borrowing and requiring member countries to borrow is becoming less effective with each passing day.

I do not agree entirely with the staff's negative conclusion on the advisability of either changing the workings of some of the variables or introducing new variables, but I have no strong feelings on those matters. The staff seems to be correct in concluding that the effects of changes in the working of variables on calculated quotas--assuming the use of reasonable coefficients--would be relatively small, as is shown in Table 1 on page 4 and in Table 1 in Appendix I in EB/CQuota/87/5. For reasons of logic, however, a five-year average GDP figure may nevertheless well be preferable to a final year's GDP. Even if use of the average delays adaptation of calculated quotas to the most recent trends, it avoids establishing quotas that are to remain in effect for a considerable time ahead on the basis of what may prove to be a short-term aberration.

I agree with the staff's conclusions on the appropriate price for valuing gold holdings. I also agree with the staff that there are no logical reasons for reducing or otherwise changing the weight of the variability measure in the quota formulas.

The staff apparently feels that little is to be gained by introducing new variables. In the area of possible new financial variables, including long-term capital movements, little would be gained by including any of the variables investigated by the staff, except perhaps capital account transactions, which seem to affect the potential need for reserves because fluctuations in those transactions are not necessarily reflected simultaneously in the items that we do consider in the quota formulas. However, the staff has noted the important statistical difficulties in including capital account transactions.

Part of the staff's argument concerning the possible inclusion of a poverty index is unconvincing. The staff maintains that anything that reduces the quota share of the wealthiest member countries is detrimental to the Fund's liquidity and should therefore be rejected. However, there is no logical argument for using such an index, as the index apparently would not affect a country's ability to supply, or its need for access to, Fund resources.

I agree with the staff that nothing would be gained by introducing variables for current receipts and the variability of current payments.

While a two-formula scheme might be acceptable, there are no insurmountable differences that would prevent us from continuing to use the present five-formula scheme.

It would be helpful to have the staff provide us soon with experimental calculations of quota shares based on various forms of distributing quota increases. As to payments schemes, they should be the same as those used in the previous quota review.

The purpose of a quota review must be to change the distribution of quotas in line with changes in the world economy. The main changes should be within major groups of countries, rather than among major groups, although none of the changes should be radical.

Mr. Grosche made the following statement:

The staff paper on further consideration of variables in the quota formulas confirms the view of this chair that basically the formulas developed for the Eighth General Review reflect developments in the economic variables reasonably well and are applicable to the Ninth General Review. In addition, the present formulas continue to reflect the different economic structures of member countries in a reasonably comprehensive way. The calculations can be used as a good guide for the distribution of quota increases.

My authorities agree with the staff that there is no compelling case to alter the working of some of the variables in the quota formulas. Moreover, it would not be particularly helpful to introduce new variables in the formulas.

Given the Fund's heavy overall work load, it would be helpful to avoid lengthy technical discussions on quota formulas. Instead, we should concentrate in the coming period on issues related to the future size of the Fund and on how best to distribute a possible overall increase in quotas among members. At the same time, I have an open mind on the various issues. I would not object to a further discussion on the formulas if new and convincing reasons for doing so were put forward. Moreover, like Mr. Yamazaki, I hope that the staff will continue updating the data used in making further calculations.

I will now comment on the main points that are discussed in the staff paper. Averaging GDP could prove to be helpful; it would reduce short-term fluctuations in GDP. On the other hand, however, the staff notes that a period longer than one year would not adequately reflect the current relative economic positions of member countries and would lead to a further slowing in the adjustment of members' quotas to their relative economic positions, although the changes in shares of calculated quotas seem to be very small when the averaging technique for GDP is used. On balance, I do not see much merit in changing the way in which GDP is used in the quota formulas.

I agree with the staff that it would not be appropriate to value members' gold reserves at a market-related price for the purpose of making quota calculations. I also agree that it appears justifiable to continue the past practice of including all ECU holdings as reserves. In view of the small relative importance of reserves in calculating quotas, a change resulting from applying a price of SDR 35 per fine ounce to EMCF gold deposits would have a negligible impact on the quota calculations. In passing, I would note that the practice of including all ECU holdings in the definition of reserves in the EMS members tends to have a beneficial effect on the Fund's operational budget.

Basically I endorse the staff's finding that it does not seem necessary to introduce on this occasion any major technical modifications in the measure of variability. However, if other Executive Directors feel that the use of variability--if redefined as the mean absolute deviation--would result in a more appropriate reflection of economic positions in member countries, I would have an open mind on such a proposal.

Including new variables in the quota formulas would not make much sense. I broadly share the staff's arguments against the inclusion of a new financial variable, a capital accounts transactions variable, or a variable for current payments. Significant statistical problems would arise in including these variables. Even more important, these variables are already adequately covered by other variables in the formulas.

Including a poverty index in the quota formulas would be unacceptable, as it would tend to have adverse effects on the Fund's liquidity position. Moreover, such an index does not help to measure the relative economic importance of members. Rather, it tends to reduce too much the relative importance of the macroeconomic variables in the formulas.

One should also bear in mind that the Fund is a monetary institution, and as such it went out of its way in addressing the financing needs of low-income members through certain special facilities and procedures. Only recently, the enhanced structural adjustment facility has been established, increasing substantially the Fund's ability to assist its poorest members.

As regards the reduction in the number of quota formulas from five to two, I feel that it is more appropriate to retain the five quota formulas. I would not like to run the risk that perhaps sometimes in the future the results of only two formulas might become less representative, thereby raising questions about the formula approach as a whole.

I am very skeptical about the use of commodity price indices as an anchor for the international monetary system. Like Mr. Posthumus, I have strong reservations about the appropriateness of adopting a commodity standard for the control of monetary policy.

Finally, if no decision on an increase in quotas can be reached by the end of March 1988, I, like Mrs. Ploix, suggest extending the Ninth General Review rather than open a new five-year period. However, the extension should be limited.

Mr. Ovi made the following statement:

This chair has repeatedly stressed the need to reach a rapid conclusion on the Ninth General Review. That view is still valid. However, following the Interim Committee discussions in September 1987, we acknowledge that some delay is inevitable. Everyone ought to recognize this fact and avoid running the risk of becoming bogged down in requesting and considering a myriad of technical papers, some of which may be motivated basically by a wish to delay the process. Indeed, in this connection, the experience of the Eighth General Review should serve as a warning to us all.

We continue to favor an overall quota increase that would be large enough for the Fund to again be placed in a situation in which there would be no need for it to borrow from some of the membership. According to the staff calculations, meeting this end would require almost a doubling of present quotas.

I need not repeat all the arguments for and against a significant increase in quotas. It is useful to note that a predominant part of the membership is still struggling hard with inadequate levels of exchange reserves. In the view of most member countries, an SDR allocation could alleviate that problem. However, arguments are constantly being made about the need for conditional credit, rather than unconditional credit. In my view, the continuing difficulty in securing borrowing from private sources is a strong argument for a substantial quota increase. The recent discussion on the security of claims on the Trust under the enhanced structural adjustment facility clearly showed that borrowing from individual member countries comes with strings attached; no individual country is to blame for this--it merely underscores an inescapable fact.

We fully agree with the staff that, on this occasion, there is no compelling case for changing the coefficients of the existing variables of the quota formulas or for introducing new variables. There is merit in one or two changes, but there is certainly no compelling reason for making the changes. Hence, unless the proposed changes were to receive broad support today, they need not be pursued in the future. A major review of the selection of variables and the choice of formulas was held in connection with the previous general quota review. We should try hard to avoid a repetition of the previous review's enormous demands on staff resources and the Executive Board's time.

The staff is opposed to averaging GDP and the exchange rate over a period of years for the purpose of the quota formulas. The staff's opposition is based on its feeling that the changes might slow relative changes in the distribution of quotas. In addition, the staff has noted that the actual impact on the shares in calculated quotas of the proposed changes would be relatively small. The outcome would certainly depend upon the relative importance in the period in question of more permanent changes in GDP versus potentially reversible changes in exchange ratios. In this connection, the staff seems to be downplaying the possible impact of averaging GDP and the exchange rate. In addition, as a matter of principle, I find it difficult to understand the staff's view that the working of the variability formula served to offset the effective loss in the relative economic position of the group of major oil exporting countries by stabilizing the distribution of calculated quotas. It is difficult to see why the logic concerned should differ in these two cases.

We fully agree with the staff that no change is warranted in either the valuation of gold or the variability measure. In addition, we do not favor the inclusion of some sort of poverty index in the formulas. The relative economic strength of member countries should determine their individual rights and obligations vis-à-vis the Fund. A revision of relative quota shares should, to the largest extent possible, be based on the economic criteria that enter into the present formulas.

Although the overall results seem quite satisfactory, the calculations for individual non-oil developing countries--as well as groups of countries--suggest a marked decline in quota shares. Still, it would not be advisable to compensate for this through some sort of correction of the quota formulas themselves, including the establishment of a poverty index. As the staff's calculations clearly show, the inclusion of such an index would necessarily lead to a major reduction of the present quotas of the countries concerned, something that would obviously be unacceptable. It is not difficult to imagine that such an outcome would give rise to strong demands for offsetting the quota loss by other countries through the inclusion of financial variables, the use of a market-related valuation of gold, and other actions. In addition, such an outcome would have undesirable effects on the Fund's liquidity situation in the context of a given overall quota increase. Moreover, it would be difficult for a large number of developing countries to argue the need for increased borrowing from the Fund on standard terms--in other words, a repayment period of three to five years. As the staff has clearly noted, the need for the provision of balance of payments financing to low-income countries has been partly addressed through the preferential access to the compensatory financing facility, the structural adjustment facility, and the enhanced structural adjustment facility, and through the policy on enlarged access.

The best way to dampen the relative loss of quota shares of non-oil developing countries is to introduce a suitable element of equiproportional quota increases. This approach, combined with an appropriately overall quota increase, could also serve to avoid a decline in the absolute quotas of countries.

This chair strongly favored the simplification of formulas and calculations that was finally achieved under the Eighth General Review. In this connection, we should go further under the Ninth General Review. As the staff has shown, the results of a combination of two formulas--the Bretton Woods formula and the Scheme 4 formula--substitute reasonably well for calculations based on five formulas. The only bias seems to be toward a slight increase in the quota share of the major fuel exporters. If there were to be broad support for it, we would favor reducing the present number of quota formulas. As to the accompanying bias, it apparently could be countered by a suitable reduction in the weight of the variability factor.

The paper on revised quota calculations shows that a more pronounced use of actual data does not result in major changes in either individual quota calculations, or apparently in the aggregate shares of various groups of member countries, compared with the original calculations. However, there are still significant deviations between calculated and actual quota shares in a number of cases. I have already referred to the need to dampen the declining share of low-income countries and a number of debtor countries. Nevertheless, the Nordic countries believe that, given the size of the imbalances, there continues to be a need for fairly substantial selective quota adjustments for countries with a large positive deviation between calculated and actual quota shares.

I believe that we are in a position to complete our technical work on quota variables and formulas in time for the April 1988 meeting of the Interim Committee.

Mr. Rye made the following statement:

The staff papers lead irresistibly to the conclusion that we should accept the quota formulas adopted for the Eighth General Review without change. This is not to say that the proposals that are canvassed in EB/CQuota/87/3 are all without merit. On the contrary, I favor the adoption of at least two of them. However, on this occasion, practical concerns have to override theoretical purity.

It is clear from the staff paper on issues arising from the Eighth General Review that there is a large number of issues to be considered under the current review, many of which have the potential to generate extensive Executive Board discussion. However, the quota formulas were dealt with exhaustively under the Eighth General Review, and extensive changes--indeed, improvements--were made compared with previous procedures. I agree with the staff that "unless there was a strong desire by the Executive Directors to effect a deliberate shift in the distribution of calculated quotas, there would not seem to be a compelling case to change, on this occasion, the coefficient of the existing variables in the quota formulas or to introduce new variables in the formulas." Seeking such a shift would open a Pandora's box that we might never shut. Hence, we should leave well enough alone.

At the same time, the case for some changes in the quota variables is better than the staff suggests. For example, there is a case for averaging GDP, even over a five-year period, for the sake of consistency with the treatment of trade in goods and services. As the staff has noted, this approach would help to mitigate the impact of overvaluation or undervaluation in a single year's exchange rate used to convert GDP data to SDRs.

The case for averaging seems to be stronger now than it was during the Seventh or Eighth General Reviews, in view of the increased number of countries with floating exchange rates and the high volatility of exchange rates in recent years. While averaging could slow relative changes in the distribution of calculated quotas, it could also prevent unnecessary fluctuations in quotas. The staff's argument that "use of a single year's data in any given quota calculation period would tend to even out over a series of quota review periods" seems rather thin; it would not necessarily hold if GDP and exchange rates moved cyclically or if the method of calculating quotas were changed from one review to the next.

Similarly, in the area of variability, the staff argues that the continued inclusion of this element in the quota formulas is "based on its significance as a measure of the instability in a member's external sector, and it has thereby a bearing on a member's potential need to use the Fund's resources." One point to consider, however, is that many member countries that have large variability in current receipts also hold high levels of reserves to protect against sudden downturns in receipts. These member countries have their calculated quotas increased by reflection in the formulas of both high variability and high reserve levels. Yet, in effect, high levels of reserves tend to reduce the need for these members to have relatively large access to Fund resources. There seems to be a case, therefore, for some further adjustment in the calculation of variability. One possibility, which the staff did not review, would be to take the level of official reserves as an offset to variability.

I agree with the staff that there does not seem to be a strong case for pursuing any of the possible new variables. In this connection, I agree with the comments of Mr. Grosche and Mr. Ovi on the possible inclusion of a poverty index.

In the extremely unlikely event that a consensus were to emerge for GDP averaging or for a reduction, by one means or another, of the weight attached to variability, I would of course join that consensus. Otherwise, I suggest that we end our consideration of the quota formulas by agreeing to leave things as they are, so that we can turn our attention, at early further meetings, to the many other matters that we will need to consider in the Ninth General Review. In that connection, I have in mind particularly the issue of selective increases for member countries whose actual quotas are most out of line with calculated quotas; the position of the very small member countries; and the issue, which is likely to be a particularly vexing one on this occasion, of payment of quota increases. More immediately, perhaps, we will need to give further consideration to the size of the Fund, on which a wide range of views was expressed during our previous discussion on quotas.

Our further work could perhaps be facilitated by the preparation by the staff of a work program, as proposed by Mr. Yamazaki, which we could discuss in the way that Mr. Enoch has suggested.

I agree with Mrs. Ploix that we should seek an extension of the Ninth General Review from the Board of Governors. In order to give some increased sense of urgency to our work, I prefer an extension of no more than six months.

Mr. Posthumus said that he wished to comment on the formulas on the basis of the staff's work on them. If a narrowing of the difference between calculated and quota shares was desired, it should be accomplished through a uniform application of the formulas. That approach was the best way in which to preserve the financial strength and liquidity of the Fund, which was a monetary institution.

In examining the existing variables and the quota formulas, the staff had reviewed, inter alia, the effects of lengthening the sample period for the GDP variable. During the previous discussion on quotas, he had mentioned that the extreme exchange rate changes used to convert GDP into SDRs could influence the outcome of the calculations in a particular year. The staff had argued that using a period longer than one year for GDP in quota calculations would result in some slowing in the adjustment of members' quotas to their relative economic position. That argument might be valid with respect to the growth rate of GDP, but it was not a valid argument for denomination in a certain currency or the SDR. However, the staff's other arguments in favor of lengthening the sample period were valid. Since the quota calculations served, inter alia, the purpose of establishing the relationships between member countries, changes in exchange rates, which could be very volatile, should be averaged out to some extent. Of course, working on the basis of 1986 data would be an additional improvement. He agreed that there seemed to be no reason to change the other elements of the quota formulas that were reviewed in the staff papers. As to the number of formulas to be used, he saw no difficulty in maintaining the practice of the Eighth General Review; a two-formula approach would increase the weight of the variability, which might become unrepresentative in the future. During the

Eighth General Review, arguments had been made in favor of the five-formula approach, and arguments could also be made at the present stage for maintaining that approach. Finally, Mr. Yamazaki's idea of drafting a work program for the Ninth General Review was acceptable.

Mr. Sengupta made the following statement:

Quotas determine member countries' voting power, their contribution to the Fund's resources, their access to those resources, and their share in SDR allocations. During the periodic general reviews of quotas in the past, sets of formulas have been used as a statistical working tool to provide some consistency between member countries' quotas and economic indicators of the relative size of member countries and their importance in international transactions. While such indicators of economic size and strength may be viewed as providing a working basis for determining the quotas of the developed countries, the quota formulas should include economic variables that are in some sense need based, so that the formulas could be used for the majority of the developing countries. Since a country's access to Fund resources and its share in SDR allocations are dependent on its quota, the size of the quota should reflect, among other factors, some need-based economic variables. As potential net users of Fund credit, the developing countries should be entitled to quotas that in some way reflect their need to use Fund resources.

In the context of the Ninth General Review, the staff has calculated quotas for individual member countries on the basis of a set of five formulas, which include the so-called reduced Bretton Woods Formula and four supplementary formulas. In these formulas, with the exception of two variables--the variability of current receipts and the ratio of current receipts to GDP--all the variables are, in one sense or another, indicators of member countries' relative economic size or importance in the world economy and, as such, are not indicative of member countries' need to use Fund resources. The variability of current receipts is the only need-based indicator; it takes into account the financial problems that the smaller primary producing exporting countries are likely to face in the event of a downturn in their export prices. The ratio of external receipts to GDP describes a particular structural feature of individual member countries and is difficult to relate directly to member countries' need to use Fund resources.

For developing countries, the most important feature of the Fund's quota system is that it is a basis for access to Fund resources. For developed countries, the use of the quota system as a basis for determining contributions to Fund resources is relatively more important. Voting power is important for both groups and, as Mr. Nimatallah has suggested, for developing countries--the principal borrowers from the Fund--a case can be made for increasing quotas in order to ensure the smooth functioning of the Fund. Since quotas are perceived as performing roughly different functions for different groups of countries, one should look for quota formulas that account for the interest of both groups of countries in a balanced manner. The need for balance is important. Working with only need-based or size-based variables would tend to yield extreme solutions to the quota determination problem and possibly a financially nonviable solution for the Fund as a whole.

We must not allow the quota share of the developing countries to fall from the present 37.7 percent to the roughly 34 percent calculated by the staff. Since the developing countries are the only users of Fund resources, and given the problems facing the world economy, the relative quota share of developing countries should be increased. The decision to do so must be a political one. I urge the Executive Directors to adopt the decision raising the share of developing countries to at least 40 percent. Thereafter, we should look at the relative shares of the countries within this group, so that the need for resources is properly matched by the supply of resources, according to the different formulas and variables that have been used by the staff and which could be introduced to reflect the current altered circumstances compared with the circumstances under previous reviews.

Within such a framework, we will need to use formulas that give recognition to size-based as well as need-based indicators. The size-based variables include domestic indicators, such as GDP, and external indicators, such as foreign reserves and current account payments and receipts.

The need-based indicators could be identified as those representing primarily domestic characteristics of an economy as well as a member country's external position. Among an economy's domestic characteristics, one may have to consider population, different indicators of poverty--such as the one used by the staff--and the gap between a country's per capita income and the relevant highest per capita income. These indicators reflect the structural character of the developing countries, which determines the need for balance of payments assistance in the same way that GDP reflects the size of the industrial countries and their ability to contribute to the Fund. Among the need-based external indicators, consideration could be given to the current account gap, which measures the gap between average current payments and average current receipts as a percent of average current payments; foreign reserve adequacy in relation to the average annual level of current payments; the prospective net inflow of official foreign capital per capita; the relative size of the foreign debt; current and prospective debt service ratios; the terms of foreign debt; and the variability of current receipts. A combination of these variables would help to determine member countries' need for balance of payments assistance.

It is necessary to see how these variables should be considered. The staff should examine this issue and consider what would happen to quotas if some of these variables are utilized. This approach would admittedly involve some work for the staff, although not much work, given the available computer technology. However, this work is well worth the effort; we have the time to engage in it, and it involves the most important element of the character of the Fund.

I do not advocate violent shifts in the quotas of individual countries. To some extent, this issue of the size of quota increases could be tackled by evolving a proper system of selective and equiproportional increases and by ensuring that all member countries receive meaningful quota increases.

The staff has examined the possibility of replacing 1985 GDP by an average of GDP over five or three years. This approach does not solve the actual problem of the need to use correct exchange rates in moving to SDRs. A more logical approach would be to start with the SDR value of GDP, as was done under the Eighth General Review, and applied to it the growth rate actually achieved by the country at constant domestic prices to obtain the 1985 or year-end value at constant domestic prices converted into SDRs. This would involve accepting whatever distortions were introduced by exchange rate conversions in the base period, but the distortions would not be compounded. Otherwise I see no reason to change the existing method of calculations based on 1985 GDP.

Valuing the gold holdings of EMS members at SDR 35 an ounce would be consistent with the valuation of gold in all Fund-related operations.

It is not clear to me why measuring the variability of current receipts through the use of the mean absolute deviation is not preferable to the standard deviation measure. A reduction in the weight of the variability factor seems to be reducing the quota share of developing countries as a group, but the staff should provide estimates based on revised data for individual countries and the two major groups of countries.

In examining the possibility of introducing new variables in the quota formulas, the staff considered several proxies for a financial variable. The inclusion of any of them would intensify the multicollinearity problem involving the financial variable used and the existing variables in the formulas and would reduce the share of developing countries in total calculated quotas. Therefore, I do not favor the inclusion of financial variables in the formulas.

I understand the staff's view that, on both conceptual and practical grounds, there does not seem to be a strong case for including in the present quota formulas a variable that takes into account a member country's capital transactions. However, countries with a relatively small expected inflow of capital may have a relatively greater need for Fund assistance. Therefore, a variable reflecting this need could be considered for inclusion in the formulas. In that connection, one possibility is to have a variable based on the inverse of net official capital inflows per capita or net official capital inflows as a percentage of GDP.

The staff has argued that the inclusion of a poverty index in the quota formulas would cause substantial shifts in the distribution of quotas in favor of developing countries. In my view, this cannot be an argument against the inclusion of a poverty index in the quota calculations. A shift in the existing quota distribution to make it more equitable and to take into account the need of member countries to use Fund resources is the main purpose of incorporating a poverty index into the quota calculations. Major shifts in the distribution of quotas favoring developing countries would disturb the balance between potential creditors and debtors, leading possibly to liquidity problems for the Fund. However, the solution to this possible difficulty is not to discard the poverty index altogether, but to revise the formulation of the index so that substantial shifts in quota distribution are avoided and the distribution of quotas reflects the need of member countries for Fund assistance. The problems associated with the inclusion of a poverty index suggested by the staff arise from the specific form of the index chosen by the staff, which fails to reduce the magnitude of variations in per capita income; therefore, those problems cannot be legitimately attributed to the poverty index variable itself. Major shifts in quota distribution could be avoided by restricting the poverty index within a reasonable range. There are possible ways of doing this, using specific transformations or varying the relative weights given in Table 3. Meanwhile, the staff should explore this possibility and inform us of the results of its efforts. There is a strong correlation between the poverty index and the need to use Fund resources. If a better indicator could be devised, I would wish to see it. It may be simpler to use an appropriate poverty index to reduce the imbalance between developed and developing countries' quota shares.

The staff also examined the possible inclusion of a current account variable and found that it would lead to a multicollinearity problem while having an insignificant impact on quota shares. I support the staff's views on this matter.

I do not favor the substitution of the five-formula method by a two-formula method. Given our enlarged computer capabilities, there should be no difficulty in calculating quotas under the existing five-formula scheme.

Mr. Massé made the following statement:

I hope that we can take advantage of the insights that were made and the progress that was achieved during the Eighth General Review to proceed expeditiously with the Ninth General Review.

In general, my authorities feel that the current set of formulas is operating reasonably well and that changes are not essential at present. The Eighth General Review involved extensive discussion of the formulas and the variables involved, and we need not repeat that process under the Ninth General Review. Nevertheless, some of the possible changes in the formulas investigated by the staff have some merit. Therefore, I could support a few changes if a consensus for them were to develop, although I would not expect there to be substantial changes in relative calculated quota shares as a result of any of those changes.

My authorities have some sympathy with those who have mentioned the idea of lengthening the sample period for the GDP variable to three or five years, thereby paralleling the sample period used for other data in the quota calculations. While this approach would involve using less current data for measuring relative economic positions, it is important to remember that short-term factors affecting nominal GDP and exchange rates could create unrepresentative results for a single year. These outcomes would probably tend to average out over a series of quota reviews, but the short-term impact could be important.

I agree with the staff recommendation against valuing member countries' gold holdings at a market-related price. My Canadian authorities think that it could be appropriate to revalue downward the gold counterpart of ECU holdings of EMS members to obtain a more consistent formula, although they do not feel strongly about this.

The existing variability measure appears to be working reasonably well as an indicator of the vulnerability of member countries' external sectors to cyclical factors. However, in order to reduce the impact of large, discrete noncyclical changes, my authorities would find the use of the mean absolute deviation measure in the variability term attractive.

For the reasons outlined by the staff, the inclusion of any of the suggested financial or capital account variables would be inappropriate at the present stage. As to the poverty index, my authorities agree that its use would lead to undesirable results, particularly with respect to the Fund's liquidity position. Other approaches, such as the enhanced structural adjustment facility, seem to be more appropriate ways in which to address the problems facing low-income member countries.

None of the possible changes in the current account variables investigated by the staff provide any advantages or improvements. In addition, my authorities do not view a reduction in the number of formulas used in the calculations as a priority at this time.

In sum, my authorities see no compelling reasons to change the quota formulas or the method of calculating quotas, and they do not feel strongly about pursuing the improvements that I have mentioned. Instead, the emphasis should be on an expeditious completion of the Ninth General Review.

Mrs. Filardo made the following statement:

During the previous discussions on quotas, this chair stressed that, if we were to take a pragmatic approach to this matter, the prevailing multiformula system, although still imperfect, should be seen as working as intended. Each of us can find good reasons to change or modify the formulas, and my comments will be made in the context especially of the objective of keeping the developing countries' quota share from declining.

GDP is the most important factor in quota calculations, as it is the overall measure of the relative size of each member country. Therefore, the advantages of averaging GDP and exchange rate data over a period of years far outweigh the possible drawbacks. In the context of today's highly volatile economic and financial situation in many countries, this alternative will certainly smooth the rate of change of the GDP variable. Any abrupt change in the exchange rate may render a single year's data nonrepresentative of a country's cycle of economic activity. In any event, a good case can be made for having parallelism with the time periods used for averaging the data for other variables in the formulas. I would welcome any change that would diminish the instability of the GDP variable.

Although the relative importance of reserves in calculated quotas is small--and, therefore, a change in one of its components could have only a minor impact on quotas--a more realistic approach could be used for the valuation of gold for the Fund's operational purposes. The staff should comment on the administrative and financial implications for the Fund of a market-related valuation of the gold in member countries' international reserves.

The staff has found that, in current circumstances, any decline in the relative importance of the variability of current receipts will drastically reduce the share of developing countries in total calculated quotas. Given this finding, and since debtor developing countries are experiencing a sharp decrease in the SDR value of their GDP while their adjustment efforts and lack of financing have depressed trade flows and international reserves, any technical modifications in the measure of variability in the formulas at the present stage would be unwarranted.

I will now comment on possible new variables in the quota formulas. The staff paper provides the statistical results of including four different financial variables in the quota formulas, all of which seem to be highly correlated with the variables that are already included in the formulas. Therefore, the addition of financial variables as indicators of a country's relative financial importance will only overemphasize the disparity of the quota distribution between industrial and developing countries.

I agree with the staff that, for conceptual and practical reasons, there are relatively large limitations on the introduction of a capital transactions variable into the quota calculations. Introducing that variable would raise a general multicollinearity problem with respect to the variables already in the formulas; furthermore, the deficiency in the compilation of statistics makes the coverage of capital flows among countries uneven. These problems could lead to difficulties in interpreting capital account transactions as a measure of the relative strength of individual countries. Nevertheless, since the capital account is the subject of increasing attention, further analysis of this issue is warranted.

Including a poverty index, such as the reciprocal of per capita GDP, would apparently add serious distortions to quota calculations. For example, there would be a decline of 40 percent in the industrial countries' quota share if a poverty index was included. This outcome is a clear reflection of the enormous disparities in the distribution of wealth among countries. Therefore, a poverty index would have disproportionately large effects on quota calculations, disrupting the balance between potential creditors and debtors and adversely affecting the Fund's long-run liquidity position. Nevertheless, an alternative form of introducing a poverty index could be further analyzed; the aim should be to avoid disturbing the current balance in the distribution of quotas while reflecting the distribution of income across countries.

The alternative of using two formulas seems to be a reasonable substitute for the present five-formula approach. Therefore, I am open to considering a reduction in the number of formulas.

Any set of formulas is far from perfect and will certainly be controversial. The formulas used may not produce the desired results for all member countries; therefore, a compromise among different positions should be sought. Although the issue of the choice of formulas deserves careful exploration, we should focus our attention on trying to increase the size of the Fund to enable the institution to discharge its responsibilities adequately. The inadequacy of the Fund's resources may be inhibiting the Fund's ability to solve member countries' adjustment problems.

I agree with Mrs. Ploix that we should recommend to the Board of Governors an extension of the Ninth General Review.

Mr. Dai made the following statement:

It is not difficult to see from the staff paper that the various optional calculations have merits and deficiencies. Therefore, the staff seems inclined to favor keeping the present quota formulas with no changes or adjustments. However, as was noted during our previous discussion on quotas, the present quota formulas and variables are not perfect. An important deficiency is that they were unable to capture fully the adverse impact of the unfavorable international environment on the developing countries in the first half of the 1980s, when those countries as a whole suffered a formidable deterioration of their economies. On the basis of the present quota formulas, the quota share of the developing countries will fall and that of the industrial countries will definitely increase, thereby leading to an undesirable redistribution of quotas among country groups and individual member countries. The undesirable effects on the quota distribution are linked directly to the purpose of the present quota review and the principles that should be adhered to in conducting it.

As the summing up of the previous discussion on the size of the Fund shows, there is an understanding that the Ninth General Review should be seen in the context of the role of the Fund and the international economic environment in which the Fund will operate in coming years as well as the potential financing needs of the majority of member countries in the coming period. I doubt whether a decline in the quota share of the developing countries as a group would be consistent with the main purpose of the present review. It is not appropriate to overemphasize an adjustment in quota shares to reflect member countries' present economic positions; the main purpose of the present quota review is not to reshuffle members' positions or to redistribute voting power among the members. An adjustment in the deviation of actual quotas from calculated quotas was already realized for many members during the Eighth General Review. Of course, special adjustments for individual member countries should not be ruled out under the present review. Moreover, the very difficult experience of developing countries in the first half of the 1980s--on which the calculations for the Ninth General Review are based--must be taken fully into account if the adjustment of relative economic positions is to be emphasized again.

This chair has consistently held the view that, with the development of developing countries, the quota share and voting power of those countries should keep increasing over time. In the present circumstances, maintaining the existing quota share of the developing countries as a group and avoiding an abrupt reshuffling of the distribution of quotas among member countries should be a guiding principle for the Ninth General Review; whatever quota formulas and variables are used should reflect that principle.

Differing variables affect member countries' interests in different ways. The choice of the quota formulas and changes in those formulas are products of compromises between different interest groups in the spirit of international cooperation that is a fundamental characteristic of the Fund. Therefore, if the principle of maintaining the present quota distribution is to be preserved, I can, in principle, go along with the view that the quota formulas and variables in the present quota formulas should remain unchanged. However, if the present quota review results in the widening of the imbalance between the industrial and developing countries, I would tend to agree with those who favor including new variables that would offset the adverse effects on the developing countries in the sample period. In this connection, inclusion of a poverty index, as proposed by the Group of Twenty-Four, certainly has merit and should be given due consideration.

If the fundamental principles for the present quota review are agreed, there should be no difficulty in finding a proper resolution of the technical issues, such as which formulas and variables should be used. This effort will require a political understanding based on the spirit of international cooperation and the political will to act by all the member countries concerned.

Mr. Morales said that the staff's general conclusion was that, owing to various technical and other reasons, none of the suggestions made by Executive Directors during the previous discussion on quotas seemed to be sufficiently strong to warrant changing the quota formulas unless the Executive Directors wished to make a deliberate shift in the distribution of calculated quotas. Nevertheless, the awkward position of his chair, which was mentioned during the previous discussion persisted: the outcome of the quota calculations by the staff would reduce the share in total quotas of countries that had made heavy use of Fund resources in recent years because of the protracted problems facing their economies. One of the Fund's main objectives was to help the adjustment process in those countries, and a distribution of quota shares that reduced the share of heavy users of Fund resources would limit the Fund's ability to meet that objective. The review of the quota calculations should continue. The staff should make proposals for adjusting calculated quotas so that the Fund could adequately perform its role in helping the adjustment process in member countries that were heavy users of Fund resources. For example, in recent years, the variability of interest payments owing to changes in interest rates had directly affected the developing countries, especially highly indebted ones. Arguments based on statistical grounds should not reduce the importance of including that kind of factor in the quota formulas.

He felt strongly that reducing in relative terms the quotas of member countries that were most in need of an increase in financing was not acceptable, Mr. Morales commented. At the least, the quota share of those countries as a group should be maintained under the Ninth General Review.

Mr. Othman made the following statement:

I will comment first on possible modifications of existing variables in the quota formulas. As to the extension of the sample period for the GDP variable, I am, in principle, in favor of a longer period. I recognize, of course, that the averaging method may lead to slower adjustment to the actual relative positions of member countries. In addition, it is true that the changes in the calculated quotas resulting from a longer sample period are relatively small. Therefore, if the majority of the Executive Board is not in favor of averaging the GDP variable, I can live with the current practice.

For the reasons mentioned in the staff paper, I agree with the staff that the present practice of valuing gold should be retained. I also agree that any change in this practice should, if necessary, be discussed only in a wider context of the valuation of gold in the Fund for operational purposes.

The basic objective of introducing the variability factor in the quota formulas is to measure the vulnerability of a member country's external payments position to exogenous developments. It is therefore reassuring that the existing measure of variability has performed well as an indicator of that vulnerability during the first half of the 1980s, when commodity export prices experienced a sharp cyclical downturn. I agree with the staff that there appears to be no compelling reason at this stage to introduce any technical modification to the method of calculating variability, since the current method is functioning reasonably well. As the staff has indicated, the variability factor has worked toward stabilizing the distribution of the calculated quotas, and it could be argued that the variability coefficient should, if anything, be increased in order to bring it back to its original level.

I will now comment on possible new variables for inclusion in the quota formulas, starting with a financial variable. As the staff has noted, GDP, which is included as a measure of the relative economic importance of member countries, also captures, to a certain extent, the relative financial and monetary importance of member countries. The inclusion of a financial variable, to indicate the relative financial importance of member countries, would thus serve to complement the GDP variable. As might be expected, this inclusion would tend to further skew the quota distribution between country groups. In addition, statistical problems argue against the inclusion of a financial variable. Therefore, I do not support the inclusion of such a variable.

There could be some merit in including a coefficient for capital account transactions in the quota formulas, provided that the problem referred to by the staff in this connection can be solved.

As the staff has noted, the issue of the inclusion of a poverty index variable in the quota formulas goes back to the early days of the Fund and was repeatedly discussed during previous reviews. The staff also notes that agreement on this matter was precluded by a concern that the introduction of a poverty index would tend to reduce the shares of the relatively high-income countries in total calculated quotas and increase the share of the low-income countries, a shift that could affect the long-run balance between potential creditors and potential debtors and the Fund's long-run liquidity position. However, it should be possible, in principle, to include a poverty index in the quota formulas without affecting in a pronounced manner the balance between potential creditors and debtors or the Fund's liquidity position. In any event, the issue of the financing needs of these countries is undoubtedly important and should be addressed in the context of not only the distribution of quotas, but also the size of the Fund, access to Fund resources, and Fund facilities.

I am inclined to agree with the staff that there would not seem to be any particular reason to modify at this stage the structure of calculated quotas by introducing a variable for current receipts or the variability of imports or current payments in the quota formulas.

I wish to acknowledge the significant simplification of the quota formulas that has already been achieved. In this connection, I agree with the staff that making quota calculations on the basis of the Bretton Woods formula and the Scheme M4 formula would substitute reasonably well for quota calculations based on five formulas. Therefore, I can go along with a two-formula scheme, if there is sufficient support for it.

Mr. Santos made the following statement:

At this stage, a number of issues have been raised, particularly with respect to revised quota calculations and the consideration of new variables in the quota formulas. My previous concerns about revised quota calculations remain. Despite the progress that the staff has made, the data used for most developing countries, particularly those in this constituency, do not capture realities, as they are based on estimates and judgments. This task is greatly complicated by such factors as the wide fluctuations of exchange rates and commodity prices and the existence of a large informal sector in the countries concerned. In addition, the period considered, namely, 1981-85, has been one of crisis, as most of the countries in Africa have experienced extreme variations in weather conditions that have adversely affected their economic performance. Therefore, the calculated quotas shown on pages 5 and 6 of EB/CQuota/87/5 have to be approached with caution.

The staff has demonstrated that it is statistically difficult to include financial variables, capital flow variables, variables for current receipts, and the variability of current payments in the quota formulas owing to the associated problems of multicollinearity. In addition, my concern about the inclusion of these variables is due to the fact that they will adversely affect the quota shares of developing countries. As the staff has noted on page 29 of the main paper, "the overall impact of including a financial variable in the quota formulas would tend to increase the share of the group of industrial countries in the total of calculated quotas and thus to reduce the share of the developing countries taken as a group." Therefore, I could not support the inclusion of even a moderate new coefficient for a financial variable in the quota formulas.

However, with respect to the poverty index, I am encouraged by the results of the inclusion of this variable in the simulation exercise for at least three reasons. First, the inclusion of this index in the formulas is technically feasible. Second, this variable would meet some of the concerns that have been expressed on many occasions about the inadequacy of current quotas of many developing countries. Third, the poverty index would answer some of the questions that were raised about the distribution of the overall quota increase among countries. As this chair has stated on previous occasions, the present quota formulas do not meet the needs of small member countries. In this connection, although some Executive Directors do not favor the inclusion of a poverty index, they have expressed their concern about the marked deterioration of the relative position of non-oil developing countries in the calculated quotas. As to the relatively uneven impact of a poverty index on calculated quotas, a shift in the distribution of the quota shares would be fair and necessary to move toward a more balanced representation in the Fund. In this connection, the simulations in Table 3 of Appendix I of EB/CQuota/87/3 are very constructive, as they provide us with a uniform method for preserving at least the actual representations.

In sum, I am still far from satisfied with the results shown by the calculations on the basis of the present quotas. The inclusion of a poverty index will provide a uniform method for taking into account the genuine concerns of developing countries and could ensure a more equitable representation of those countries in the Fund. Therefore, the staff and the Executive Board should continue to explore this possibility for achieving a consensus to which a large group of the membership could genuinely associate itself.

Mr. Salehkhou made the following statement:

As the staff reminds us on page 14 of EB/CQuota/87/4, the Executive Board generally agreed during the Eighth General Review on the uniform distribution of the quota increase. I fully agree with the assertion that, given the political and other constraints and the various functions that quotas perform in the Fund, the distribution of quotas was essentially a matter of judgment and political compromise, albeit among unequals. Given the gloomy outlook for the world economy, I hope that the present exercise will fully benefit from the good faith and political will of all the active participants. In this connection, I note with concern the information provided by the staff that, while the share of developing countries' calculated quotas significantly increased from 22.7 percent under the Sixth General Review to 32 percent under the Seventh General Review and by a further 1.9 percentage points under the Eighth General Review, the increase under the Ninth General Review would be negligible. Given the gloomy economic outlook and the substantial financing needs of the developing countries as a group, my authorities feel strongly that this group's actual share in total quotas should be increased at a rate commensurate with the financial requirements of these countries. This group should have a greater weight in the equiproportional share of the increase in calculated quotas.

I will now comment on the various issues raised in EB/CQuota/87/3. I see some merit in the staff's contention that averaging GDP over a number of years would reduce the impact of cyclical fluctuations on individual economies. In addition, that approach would partly alleviate the concern of members that have had Fund-supported adjustment programs in recent years and which are being adversely affected by the negative impact of currency devaluations on the conversion of local currency data for GDP into SDRs for the purpose of quota calculations.

Owing to the relatively small weight assigned to reserves in calculated quotas, the proposal to use a market-related price for the gold portion of a member's reserves has no major impact on the ranking of members in terms of calculated quotas. Therefore, I endorse the staff's recommendation that, in order to avoid complications arising from, inter alia, changes in the valuation of gold in the Fund for operational purposes, the current valuation practice for the purpose of quota calculations should be maintained.

Great importance should be attached to the variability of current receipts, as it reflects the developments affecting member countries' external economic position and determines the magnitude of instability and vulnerability of the economy to factors that are mostly beyond the control of the authorities. Since the variability of current receipts is an important indicator of a member country's potential need to use Fund resources, the present weight coefficient should, at least, be maintained, if not increased, and the standard deviation measurement should not change. I fully agree with the staff that "the existing variability measure now seems to be performing reasonably well as an indicator of the vulnerability of members' external sector to cyclical factors." Reducing the weight of the coefficient or introducing any technical modification to the measure of variability--such as the use of a mean absolute deviation measure--would not only reduce the share of developing countries in total calculated quotas, but also underestimate members' possible financing needs.

The variability component in calculated quotas of some major oil exporting member countries appears to be comparatively high; it contributed about 50 percent to the calculated quotas of this group of members. However, the steep fall in export receipts has had a substantial negative impact on the GDP growth, imports, and international reserves of this group of countries. In turn, this development has adversely affected the group's calculated quotas. As the staff has explained, "the variability factors served to offset the effective loss in relative economic position of the group of major oil exporting countries attributable to the deceleration or decline in their GDP, reserves, and external trade." Furthermore, there is likely to be a further deterioration in the debt situation of the heavily indebted oil producing member countries. The latest world economic outlook paper notes that "should the recent fall in oil prices be sustained throughout 1988, there would be additional negative consequences for this group of countries." The calculated quota shares under the Ninth General Review for the three fuel exporters in my constituency--the Islamic Republic of Iran, Algeria, and Tunisia--have declined in comparison with the quota shares under the Eighth General Review from 2.7 percent to 1.9 percent. This outcome clearly demonstrates that the positive effect of the variability component, although perceived to be relatively great, has been more than offset by other variables used in the quota formulas. Therefore, I fully agree with the staff that at present there is "no compelling reason" to introduce any technical modifications to the existing variability measure in the quota formulas.

I wish to reserve my final position on some of the proposals concerning the introduction of new variables in the quota formulas. I will comment briefly on each of the four topics under discussion.

One cannot deny that including a financial variable in the quota formulas would increase the share of the group of industrial countries in total calculated quotas, which would make a positive contribution to the Fund's liquidity position. However, that outcome would be accomplished only at the expense of a loss of quota shares by the developing countries, which already suffer from small quota shares. In addition, I have difficulty in accepting the supposed usefulness of a financial variable as a complement to other variables in the formulas in enhancing the magnitude of the economic importance of member countries; the coefficient that is already assigned to GDP in the present calculations is already relatively high.

Another possible additional variable is capital transactions. As the staff has noted, current account transactions are a mirror image of capital account transactions in the balance of payments. In addition, I agree with the staff that there are statistical deficiencies inherent in capital account data used for quota calculations. Therefore, I endorse the staff's view that "on both conceptual and practical grounds, there would not seem to be a strong case for including in the present quota formulas a variable that takes into account a member's capital transactions."

I strongly sympathize with those who have proposed the inclusion of a poverty index in the quota calculations. At the same time, I understand the difficulty that including such an index may involve. Since I am always supportive of any practical solution to alleviating the uneven distribution of quota shares between the industrial and developing country groups, I encourage the staff to look further into this matter in the hope of arriving at a practical solution. In addition, I fully support and encourage the staff's exploration of the possibilities for developing facilities in the Fund that would be used as supplementary, rather than alternative, means of financing low-income member countries' balance of payments needs.

I agree with the staff's conclusion that "on technical grounds, and given the present structure of the quota formulas, there would not seem to be any particular reason to modify the structure of calculated quotas through the introduction of a variable for current receipts or the variability of imports or current payments in the quota formulas."

I share the concern of those who are worried that any reduction in the number of the quota formulas would distort the results of calculations made on the basis of the traditional five-quota formulas. In addition, I am apprehensive about the possibility that results obtained with a reduced number of formulas might not be representative of all the different characteristics of member countries in the future. Therefore, I favor retaining the present five-formula approach.

Like previous speakers, I urge expeditious completion of the technical work on the Ninth General Review of Quotas, and I hope that we can positively conclude this review as soon as possible.

Mr. Abdallah made the following statement:

The staff paper was prepared in response to questions raised by Executive Directors during the July 1987 discussion on quotas and to provide further insights into the present quota calculations and the working of the variables used in the formulas. The revised quota calculations, based on updated data, show a general decline in the quota shares of the majority of member countries. I found nothing new in the revised calculations to change my general view expressed during the previous discussion, that the existing methods of quota calculations have an inherent bias against developing countries, thereby bringing about a further diminution in their relative quota shares. While developing countries represent the vast majority of the membership, their relative quota share has remained small, and instead of redressing the imbalance, the present formulas actually worsen it, as is shown in the comparison of calculated quotas with present actual quotas.

These were some of the concerns that prompted this chair and many others to raise questions about the working of the quota formulas and to request a further examination of the role of some of the variables in the formulas and of the possibility of including new variables with the aim of achieving a more equitable distribution of quota shares. Despite the staff's conclusion that there would not seem to be a need to change the quota formulas or the method of calculating quotas, I continue to see a valid reason for making some changes by either adjusting the coefficients of some of the existing variables, or by introducing new variables to make the distribution of quota shares more representative of the membership.

I will now comment on some of the specific issues raised in EB/CQuota/87/3. I see considerable merit in using GDP data over a period longer than one year. Apart from being consistent with the length of the period used for the calculation of other variables, and in addition to avoiding the possible undesirable effects of using a nonrepresentative single year's GDP data and exchange rate, the use of average data over more than a year would help to reduce both possible transient influences on GDP and the instability in the structure of calculated quotas. The possible consequence due to averaging of slowing relative changes in the distribution of quotas appears to be minimal, as is shown in Tables 1 and 2. Therefore, I support the use of GDP and exchange rate data averaged over a five-year period in quota calculations. In any event, this approach will still leave unsolved the problem of the failure of GDP calculations to capture all the activities in the fairly substantial subsistence and nonmonetized sector of the economies of developing countries. Most of the countries in my constituency have experienced a persistent contraction in economic activity as a result of unprecedented drought conditions, the large depreciation of their local currency, and the compression of their imports in line with adjustments in parities. Therefore, without a selective intervention, acceptable improvement in quota shares cannot be achieved.

I agree with the staff that before valuing gold in members' reserves at market-related prices for the purpose of quota calculations, it is necessary to consider the valuation issue in a wider context, so that whatever changes made will apply to all Fund transactions. Since there is no intention to change the current method of valuing gold in the Fund, and given the small effect of valuing members' gold holdings at a market price for the calculation of quotas, I support the staff's recommendation that the present practice in this respect should be maintained.

The variability measure in the quota formulas is of major importance for developing countries in general, and primary producing countries in particular. In fact, it is the only variable that gives some balance to the formulas, as all the other variables in the formulas have an inherent bias in favor of industrial and large economies. Therefore, I strongly oppose any change in the definition of the existing variability measure or any reduction in the size of its coefficient, which would reduce variability's role in quota calculations. Accordingly, I support the staff conclusion that there is no reason to change the present practice of calculating the variability of current receipts, which should continue to be measured as the standard deviation of current receipts from a five-year moving average. I do not support the use of a mean absolute deviation measure or of the other alternative methods discussed by the staff, and I see no reason to impose a limit on the size of the variability measure. I was surprised to see the staff incorporating a reduction in the coefficient of the variability measure in its illustrative calculations instead of exploring the impact of an increased coefficient of the variability measure. Indeed, the pressing need to halt the continued decline in the percentage share of developing countries in quotas would require, among other things, the restoration of the coefficient of the variability measure to the level that prevailed before the Eighth General Review. Consideration should be given to increasing the variability coefficient by 20 percent to counterbalance the impact of other variables on the share of developing countries.

I have difficulty in accepting the stated justification for including a financial variable in the quota formulas. The economic and financial importance of the reserve currency countries in the world economy is already fully reflected in the existing variables. For example, the GDP variable is a measure of the relative economic importance of members, and the reserve variable, which was introduced under the Eighth General Review, directly reflects the relative financial importance of member countries. Introducing a new financial variable would unduly overemphasize the importance of some of the variables that are already included in the formulas and may, in effect, result in some overlapping, which is one of the reasons for the technical problem of multicollinearity that is shown by the statistical results of the staff's illustrative calculations.

Apart from this problem, which, as the staff notes, argues against the inclusion of a new financial variable, there are more substantive reasons why the inclusion of a new financial variable would be a move in the wrong direction. The existing quota formulas are already characterized by an inherent bias in favor of industrial countries, and adding a new financial variable will only reinforce that bias rather than neutralize it. The staff's suggestion that consideration might be given to the inclusion of a financial variable with a small coefficient is unacceptable, because the problem of including such a variable is much more fundamental than the purely technical problem of multicollinearity that the staff tried to address by reducing the size of the coefficient. Therefore, I do not support the introduction of a new financial variable in the quota formulas.

The main reason why this and other chairs asked for an examination of the possible inclusion of a poverty index in the quota formulas is to add greater symmetry to the structure of quotas than is discernible at present. The staff's conclusion that including a poverty index will have an uneven impact on calculated quotas and will reduce the importance of macroeconomic variables while negatively affecting the Fund's liquidity position may hold only if a relatively large weight is attached to the poverty index variable. Given the staff's illustrative calculations, I do not believe that the inclusion of a poverty index with a relatively modest weight, as suggested by Mrs. Ploix, will have the serious adverse effects that some have feared. The staff must take another look at this proposal with the objective, as stated by Mr. Sengupta, of deliberately minimizing such uneven shifts. It is fairly obvious, therefore, that the inclusion of a poverty index on a modest scale deserves more favorable consideration than it has been given thus far.

In concluding, I wish to stress three points. The first is the need to maintain the present share of developing countries in Fund quotas if a consensus cannot be reached on increasing the share to 40 percent, as Mr. Sengupta has proposed. Second, there is a need to preserve the integrity of the two African chairs in the Executive Board and to do everything possible to facilitate the work of the two Executive Directors from Africa. Third, it is desirable to have the staff continue studying the possible inclusion of a poverty index in the calculation of quotas in view of the constructive approaches to the subject that have been used.

Mr. Zecchini made the following statement:

The three papers prepared by the staff for today's discussion provide a good and comprehensive basis for accelerating the pace of our analytical work on the revision of quotas. With these papers, few, if any, analytical areas are left uncovered, and therefore, we can advance toward the final stages of our analysis and decisions.

I will deal first with the revised calculations of the new quotas and second, I will address briefly some specific issues related to the selections of variables and formulas. I will concentrate my remarks on points I did not raise before, on the understanding that my comments in the previous Board discussion on this subject are still relevant for today's debate. As to the revised calculation of quotas, I broadly agree with the overall results, which, in Italy's case, show the importance of using updated data, especially when dealing with the "national accounts." If the present review should be extended after March 1988, *it will be necessary to extend the period of reference for* the data to 1986, compared with the present limit of 1985. I strongly support such a move.

Although in the new staff paper the use of estimated data has been considerably reduced, a substantial amount of estimated data is still present in the calculations. This is somewhat disappointing, particularly for the U.S. and Japanese figures on interest payments and receipts of offshore banking services. In this connection, the staff should comment on the likelihood of reducing further the use of estimated data in the quota calculations. Estimated trade flows are also present in the separate quota calculations for Belgium and Luxembourg. I understand from the staff paper that a final decision on whether to proceed with separate quota calculations for the two countries has not been taken yet by the authorities. Since the decision will affect other countries' relative shares, albeit only marginally, I would welcome an update on the status of these negotiations on the matter. In addition, I wish to reiterate my support for the inclusion of ECU reserves in our calculations and for a more positive consideration of the possibility of valuing gold reserves at a price that is less distant from market prices.

As regards the paper on the selection of the appropriate variables for the quota formulas, I believe that the present setup, which was the outcome of lengthy negotiations, is still broadly appropriate. The existing variables are sufficient to meet two main objectives of quota estimation, namely: to measure the relative economic size of each member country; and to measure the member's potential need to use Fund resources. Therefore, there is no need to include new variables--for instance, poverty indices.

Low-income countries are already the objective of ad hoc Fund policies, including the recent enhancement of the structural adjustment facility, policies which aim at raising these countries' levels of access to a higher multiple of their quota than that for other members. Moreover, the present compromise by which the actual quota of most developing countries is higher than their calculated quotas also contributes to enhancing the ability of these countries to draw on the Fund's resources.

On the issue of the role to be assigned to variability, although I could accept the present setup, the current method of measuring variability could be properly modified in order to avoid the distortions caused by large discretionary changes which do not represent cyclical fluctuations around the norm. In this respect, the mean absolute deviation seems to be the most appropriate measure of variability. This type of measure was considered by the Executive Board at the time of the Eighth General Review, but its use was discarded because of the shifts in the distribution of calculated quotas it produced. However, as in the present calculations, these shifts are smaller than those entailed in previous reviews, and the opportunity to make the correction on such a favorable occasion should not be missed.

As to the reduction of the number of quota formulas, some scope may exist in order to streamline and simplify the present revision of calculations. To this end, I support the proposal to retain only two formulas, namely, the Bretton Woods formula and the M4 formula. The amount of distortion in calculated quotas that would be caused by such an innovation is very limited, as is indicated in the paper, while the two retained formulas would still capture the essence of the parameters for the quota calculations.

Finally, I wish to reiterate three points I made during our previous discussion. First, all the variables that are relevant in our calculations point to the need for a sizable increase in the overall size of the Fund. This is also in line with the current principle that the Fund is and has to be a quota-based institution. Second, disparities between calculated and actual quotas remain significant, and in the case of a fairly large number of members, these disparities are quite substantial. Consequently, in the context of the overall quota increase, I believe that a fair amount of selective increases is necessary and appropriate. This increase could be limited to the largest shareholders or to those countries with the largest discrepancies, in order to preserve the overall quota share of smaller members. Third, it is not advisable to further reduce the total amount of the quotas for the group of industrial countries. The weight of this group has already been reduced significantly over the past quota reviews and at present does not fully reflect their economic importance. Further reductions would also decrease the availability of usable currencies and could eventually affect the liquidity position of the Fund. Therefore, I favor, as a minimum, a stabilization of the overall quota of the group of industrial countries.

As to the timetable for our future work on this area, the staff could provide us with indications on this point. In this connection, I would not object to an extension of the current period for the quota review, provided that this extension is not too long and is essential to reaching a broad consensus on a substantial increase of the size of the Fund.

The Executive Directors agreed to continue their discussion in the afternoon.

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