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INTERNATIONAL MONETARY FUND

Committee of the Whole on Review of Quotas

Meeting 94/1

9:30 a.m., March 18, 1994

R. D. Erb, Acting Chairman

Executive Directors	Alternate Executive Directors
M. Al-Jasser	
M.-A. Autheman	
J. Bergo	E. Srejber
	J. Prader
	J. Dorrington
H. Fukui	
	L. E. N. Fernando
	A. Raza, Temporary
J. E. Ismael	
	K. Link
	R. F. Cippa, Temporary
A. Kafka	J. Jaramillo
	A. V. Mozhin
G. Lanciotti	
K. Lissakers	
R. Marino	G. Torres
A. Mirakhor	M. Daïri
L. J. Mwananshiku	B. S. Dlamini
G. A. Posthumus	
	Y.-M. T. Koissy
	E. Wagenhoefer
A. S. Shaalan	Y. Y. Mohammed
	G. F. Murphy
E. L. Waterman	
Zhang M.	Wei B.
	A. F. Jiménez de Lucio

L. Van Houtven, Secretary and Counsellor
S. W. Tenney, Assistant

Also Present

European II Department: A. J. Richards. External Relations Department: M. R. Kelly, Deputy Director. Legal Department: H. Elizalde. Research Department: P. Isard. Secretary's Department: J. M. Boughton, B. R. Hughes, A. Mountford, M. J. Papin, T. S. Walter. Treasurer's Department: D. Williams, Treasurer; G. Wittich, Deputy Treasurer; M. B. O'Brien, O. Roncesvalles, G. Tavlas, M. A. Wattleworth. Western Hemisphere Department: S. T. Beza, Counsellor and Director; H. Arbulu-Neira. Advisors to Executive Directors: J. M. Abbott, G. M. Blome, P. Cailleteau, A. Chang Fong, S. K. Fayyad, T. K. Gaspard, Hon C.-W., A. R. Ismael, J. M. Jones, Y.-H. Lee, J. C. Martinez Oliva, M. F. Melhem, P. A. Merino, N. Toé. Assistants to Executive Directors: S. Al-Huseini, J. M. Burdiel, A. Cathcart, G. El-Masry, J. C. Estrella, L. Fontaine, A. Galicia, H. Golriz, G. H. Huisman, V. Kural, N. Laframboise, S. C. McDougall, S. del C. Olgiati, T. Oya, J. Pesola, H. Petana, N. Prasad, S. Rouai, D. Saha, V. Verjbitski, Wang X., Wang Y., Wu H.

1. TENTH GENERAL REVIEW OF QUOTAS - WORKING OF THE QUOTA FORMULAS; AND PRELIMINARY CALCULATIONS

Executive Directors, meeting as a Committee of the Whole, considered a staff paper on the working of the quota formulas in connection with the Tenth General Review of Quotas (EB/CQuota/94/2, 2/28/94), together with a staff paper on preliminary quota calculations (EB/CQuota/94/1, 2/25/94).

Ms. Lissakers made the following statement:

As a preface, it is only fair to say that my authorities have little enthusiasm for engaging in an extended discussion on the Tenth General Review of Quotas. The Ninth Review, which increased quotas by 50 percent, was implemented only recently, and it was too controversial for there to be much interest in returning to this subject now. I suspect this attitude is shared by many Directors.

We are prepared to listen attentively to what other Directors have to say for the current discussion, but our initial view is that no general increase in quotas is warranted at this time. We hope the Board will not involve itself in an extended discussion of issues that are not likely to lead to a consensus. A swift conclusion of the Tenth Review ought to be possible.

The staff papers do not address the question of whether or not there is a financial need for a quota increase. They address only the question of whether standard formulas generate an increase in calculated quotas. This being the case, let me just stipulate at the start that the current problem of the Fund is not that quotas are too low, but that they are too high. Under current policies, we underemploy the resources available.

In this respect, I would stress that the quota formulas provide useful guides for evaluating relative quota shares for individual members, but they do not provide a meaningful standard for judging the overall size of the Fund. The appropriate size of the Fund needs to be judged against the background of how the international financial system actually functions. A simple aggregation of calculated quotas tells us little about the appropriate size of the Fund. Past quota reviews have not tried to keep the overall size of the Fund in alignment with calculated quotas. Thus, we would place no weight on the figures in Table 3 of EB/CQuota/94/1, which show the relationship between the calculated size of the Fund and the actual size of the Fund.

From this perspective, I will comment first on the staff paper on preliminary quota calculations and then take up the staff paper on the working of the quota formulas. In the first staff paper, the calculations are straightforward, but the results do not look very promising as a basis for further discussion. The world economy has gotten bigger since the Ninth Review so the calculations call for a global increase in quotas. But the expansion would be concentrated in the richer countries and some of the newly industrializing economies. There is widespread slippage among the developing countries.

This result is entirely in keeping with what we know was going on in the world economy in the last half of the 1980s. It is not, however, a result that lends any support to those who wish to tilt the quota calculations away from trade and wealth considerations in favor of need. In light of what happened in the late 1980s, preserving current relative quota standings is in itself a tilt toward need.

I must say, though, that there is one feature of the calculated quotas for the Tenth Review that would probably have appealed to my predecessor. I understand that my predecessor was something of a Don Quixote, holding out against an enlarged Board. The relative rankings produced by the Tenth Review would have given him a sturdier stead to mount in pursuit of that impossible dream. If we were to follow the preliminary calculated quotas, all of our present single-constituency, elected chairs would probably need to organize constituencies in order to maintain their chairs.

If the preliminary quota calculations lead us only into blind alleys, the staff paper on the working of quota formulas does not help us escape the cul de sac. Small, easily defensible refinements in the formulas do not change the general alignment of quotas very much. Significant modification of the formulas shifts the alignment of quotas in ways that a large number of Fund members would probably consider capricious.

The two most noteworthy suggestions for modifying the quota formulas are to use purchasing power weights and to incorporate "needs-based" variables.

I had expected there might be some running to be made by using purchasing power weights rather than exchange rates to standardize comparisons of money values. In practice, however, I found the staff's arguments that calculations of purchasing power parities (PPP) are still quite primitive and imprecise rather persuasive. For a large number of members, no PPP estimates are available. Where PPP weights are available, the margin of error is so large that they can easily lead to arbitrary or inconsistent quota rankings. We do not see any compelling justification for substituting PPP weights for exchange rate weights.

The section of the staff paper on "needs-based" variables is interesting and revealing. The calculations show that, if we wish to force the results in a direction that produces larger quotas for poorer countries, including a per capita income variable, we can produce the desired result. This is hardly surprising. But it does not carry us very far. The actual quota allocations already assign larger quotas to underdeveloped countries than the calculated formulas would call for. Unless there is some indication that the Board wishes to rebalance the quota distribution more in favor of the developing countries than it already is, experimenting with the "needs-based" variables is only likely to provoke invidious comparisons among poorer countries.

Two other aspects of the "needs" issue should also be kept in mind. Quota allocations not only have a bearing on access to Fund resources, but they also determine the contribution of members to Fund resources. Arbitrarily tilting the formulas even more in favor of likely borrowers would expand the likely calls on Fund resources without a corresponding increase in Fund resources. Furthermore, over the years, access policy has been adjusted to respond to the "needs" of developing and transforming members. If the same issue is to be addressed from the quota side, access policy would need to be reconsidered.

All in all, I do not think there is the making of a consensus in the material before us today. The staff has provided what the Board requested during the Ninth Review. That is, it has provided a very good assessment of how the current formulas work and how plausible alternatives would work. The current formulas are hardly perfect, but none of the alternatives stand out as an obvious improvement. Unless we really intend to support a general increase in quotas under the Tenth Review, the Board would just be spinning its wheels to engage in a protracted discussion of the pros and cons of various quota formulas. At this stage, I would be happy to thank the staff for the very thorough work it has done and move on to more pressing matters.

Mr. Fukui made the following statement:

The staff papers are very technical and not necessarily suitable for Board discussion. However, this is the homework that we postponed finishing until after the Ninth Review. The staff has clarified the issues very precisely and made reasonable suggestions.

Before making specific comments, I would like to make some general comments.

At this Committee, we are not supposed to discuss judgmental issues, such as the appropriate total size of the quota increase under the Tenth Review or its timing. Although judgment of financial need vis-à-vis the liquidity position of the Fund is one of the important factors in a quota review, there is another important principle in the exercise of quota review--the principle of equity. The preliminary quota calculations contained in the staff papers currently under consideration are just indications and are presented for the purpose of illustration, but they clearly show that there are some members that have discrepancies between their calculated quota shares and actual quota shares. For some of these members, the degree of discrepancy is fairly significant. These discrepancies are a cause for concern for those countries from the standpoint of the basic principle of equity. It is necessary to address this concern properly, and there is good reason to have a discussion on the early implementation of the Tenth Review.

I would like to make some brief comments on the issues raised in the staff papers.

I agree with the staff that the study does not indicate that there are good reasons for introducing new variables into the quota formulas.

The suggested new variables, except for the "needs-based" variables basically would not bring about a meaningful change in calculated quota shares. Discussions on these new variables could go on for a long time and will not pay off. Therefore, I do not support any proposals for the introduction of new variables, regardless of whether they benefit developing countries or industrial countries.

With respect to the inclusion of "needs-based" variables, while I can understand the concerns shared by developing countries, I am not convinced that the possibly great impact that the use of such variables would have could be fully justified.

Furthermore, I share the concern expressed by the staff that a possible shift of quota shares to relatively low-income countries could have implications for the long-term liquidity position of the Fund. I note that developing countries are concerned about the amount of access they have to the Fund's resources, but that demand for increases in access should be, if necessary, reflected in the context of an increase in access limits.

With respect to the calculation of PPP-adjusted GDP, I agree with the staff that such a change is not well justified, because of the great degree of data deficiencies that is inevitable in the currently available PPP indexes. Similarly, I do not support the use of GDP data adjusted for real effective exchange rates, because it is extremely difficult to choose an appropriate base year that would be fair to all members.

I agree with the staff, in principle, that the averaging of GDP over several years would go some way toward smoothing the volatility of data that can arise from using a single year's data. On the other hand, however, it is necessary to take account of the basic requirement inherent in the quota formulas that the data used should be as recent as possible in order to reflect the latest economic situations of member countries. With a view to satisfying these two requirements, I would suggest that the GDP variable in the formulas be averaged over a three-year period.

As to the simplification of quota formulas, I share the staff's concerns arising from nonlinearities in some of the existing quota formulas, as well as its preference for reducing the number of the current quota formulas, which would not make a meaningful difference in the calculated quotas. Therefore, I support the staff's proposal to simplify the formulas and use a linearized Bretton Woods formula in association with the linear formula, M4.

Mr. Zhang made the following statement:

Given the diverse nature of countries' economies and their divergent databases, it must be a painstaking task to make the preliminary quota calculations objectively reflect changes in members' positions in the world economy since the Ninth Review. In that respect, the two staff papers for the current discussion are comprehensive and informative.

However, other information can also be useful. The statistical annex to the staff paper on the world economic outlook shows that developing countries as a whole have achieved faster real GDP growth rates than industrial countries over the past two decades. From 1975-92, the economic growth rate for developing countries was in the range of 3.7-5.8 percent. During this period, the average world economic expansion was 0.6-4.6 percent, and industrial countries as a group registered a growth rate of 0.5-4.3 percent. Economic growth in developing countries was not only higher than the world average, but also faster than in industrial countries. With respect to trade volume, since the mid-1980s, the import and export growth rate in developing countries has been higher than in industrial countries. As a result, developing countries have made an increasing contribution to world trade and economic growth.

In contrast to such developments and according to the staff's preliminary calculations, the share of calculated quotas for developing countries as a whole has declined to about 29.3 percent under the Tenth Review from about 39 percent of present quotas and 35 percent of the calculated quotas under the Ninth Review. In this context, I cannot help but question the suitability of the present formulas for impartially revealing changes in members' relative world economic positions. The faster growth of real GDP and trade volume of the developing members as a whole should not lead to a dwindling share of Fund quotas.

Such an unjustified decline is more pronounced in the case of China. Over the past decade or so, China has been one of the countries with the highest economic growth. The volume of trade has increased tremendously during this period and, as a result, the Chinese economy has become more open. These are all indisputable facts. However, according to the preliminary calculations, the share of calculated quota for China under the Tenth Review has declined. Such an unreasonable decline is by no means acceptable. I do not believe that the results, although preliminary, can objectively reflect China's changed position in the world economy given the positive developments over the past decade or so.

Having drawn attention to these contradictory developments, it is very important to consider how the formulas can be improved to provide a more objective calculation of quotas and reflect the developing countries' economic strength--much enhanced since the mid-1980s. The staff has documented several ways to refine existing variables and add new ones. Rather than make exhaustive comments on all these points for the current discussion, I will just take the use of real effective exchange rates as an example of the direction future study might take.

Under the formulas currently used to calculate quotas, nominal exchange rates are used to convert GDP data into SDRs. Unlike exchange rate arrangements under the Bretton Woods system, nominal exchange rates can move in both directions, sometimes in a turbulent way. Therefore, depreciation or appreciation of domestic currency will understate or exaggerate actual domestic economic activity when GDP is converted into SDRs. To eliminate such unwarranted distortions from the conversion process, the use of real effective exchange rates might be a better alternative.

The staff has indicated some weakness in the variability of current receipts to show the potential demand for Fund resources. Per capita GDP, if given only a low weight in the formulas, could help address the staff's concerns without the implications for the Fund's long-term liquidity position.

All in all, the quota issue--no matter how difficult--can be addressed satisfactorily through members' continued cooperation. Such a spirit has helped the Fund weather challenges in the changing world over the past decades, and I am confident that this cooperative spirit will help us meet future demands.

Mr. Prader made the following statement:

Before commenting on the staff papers, I should mention that my Belgian authorities have raised the question of whether priority should be given to an SDR allocation, rather than to discussion of the Tenth Review. Nevertheless, I will examine, first, whether it is appropriate, or necessary, to reform the quota formulas and, second, based on the preliminary quota calculations for the Tenth Review, the need for a selective quota increase to reduce the disparities between actual and calculated quota shares.

We would prefer to keep the quota formulas used for the Ninth Review unmodified--except for most of the technical improvements suggested by the staff. These quota formulas are marked, above all, by their remarkable relative stability and by their ability, through the variables they incorporates, to reflect changes in members' economic positions adequately. These advantages make it reasonable and useful to retain the quota formulas for the Tenth Review, and possibly also for the Eleventh Review if it were decided to formally conclude the Tenth Review without extensive discussion.

In any case, the experience of previous quota reviews suggests that--in the absence of any really dramatic change in the quota formulas--the final outcome for most member countries has owed much more to protracted negotiations on the size of the selective and special components versus the equiproportional components of the general increase than to refinements in the quota formulas. Given the large role played by judgmental factors in arriving at agreements on quotas, more elaborate statistical discussions would provide only marginal benefits in terms of providing new information and great costs in terms of prolonging the Tenth Review. It is desirable to maintain continuity in the method of determining quotas. Acceptance of the method will be enhanced if confidence in its integrity is not eroded by frequent, complicated changes in the underlying reasoning.

The bottom line is whether participants have the political will to press for an early conclusion of the Tenth Review. There is no point in trying to conceal lack of consensus behind lengthy discussions about the quota formulas. In the present climate of fiscal retrenchment, with the cost of the Fund called into question, there should be a moral imperative to avoid bloating the Fund's administrative costs in such a way.

With these considerations in mind, we could not support the inclusion of such new variables as poverty indexes or variables reflecting the size of financial market centers. As to poverty indexes, several Board discussions during the Ninth Review revealed a rather clear inclination to reject them as weakening the Fund's liquidity position. The poverty problem is better addressed by special Fund facilities and by concessional resources like those provided under the enhanced structural adjustment facility, or even by an SDR allocation associated with a redistribution scheme for the low-income countries, than by a special increase in quotas for poor member countries. The balance of the arguments on financial market variables tends to favor the negative views expressed by the staff.

One member of our constituency would be in favor of redefining certain variables, such as GDP or the weight of variability of current receipts.

We would prefer to place great emphasis on using the most recent data available: this would underline the seriousness with which we approach the quota exercise and, thus, bolster its legitimacy.

We would endorse most of the technical improvements proposed by the staff. However, we do have reservations about the proposal to reduce the number of quota formulas from five to two. We also have reservations about the simplification of the quota formulas; while the method proposed by the staff eliminates certain perverse results, it also introduces an inequity. In fact, the simplification is accomplished by eliminating the coefficient related to the openness of an economy. This coefficient reflects a country's readiness to participate in the world economy and its willingness to trade with other countries, which is one of the goals promoted by the Fund.

With respect to the preliminary quota calculations for the Tenth Review, the staff notes that, compared with previous quota reviews, the discrepancies between the actual and calculated quotas of some large countries have shrunk. This should not lead to premature complacency, but to the conclusion that similar progress must now be made with respect to the larger countries that still have large discrepancies as well as with respect to the smaller countries.

If the Fund wants to increase the cooperative spirit of its work, it must continue the effort to level the differences between actual and calculated quota shares. Noneconomic considerations, like maintaining stability in the relative shares of country groupings will probably always be with us, but should take second place behind the economic objectives of the quota review. Without determined efforts to deal seriously with discrepancies between actual and calculated quotas, some members will be encouraged to maximize their quotas while minimizing the Fund's financial potential and the obligations of its members. The staff calculations, which indicate that the developing countries' representation in the Fund continues to decrease, do not take sufficient account of the increase in the Fund's membership. We recognize the need to preserve an equitable and adequate representation of developing countries in the Fund.

The preliminary quota calculations contained in the staff paper present the Fund very much as if there had been no major change in its membership since 1989, and as if there were only three major groupings: the industrial countries, the major oil-exporting countries, and the non-oil developing countries. While ending this tripolar world view could help our quota negotiations, it also gives rise to questions concerning how the quota increase can specifically address the problems of the countries in economic transition in the absence of an SDR allocation.

Mr. Autheman made the following statement:

We all know that this is a difficult issue and we remember, like Ms. Lissakers, that the last quota increase was not pain-free. While an increase in the size of the Fund is not urgent, we should bear in mind the advice of a Seventeenth century French poet that it would be wiser to behave like tortoises than like hares. The hare thinks that he will always have plenty of time to prepare for the race. The tortoise thinks that the best way to arrive on time is to leave early. So, I will behave like a tortoise on this issue.

Some may think that this debate is irrelevant, because the Fund has abundant resources, and, consequently, we do not need to consider a future quota increase. Short-term assessments may be misleading, so we have to take a long-term view on this issue. Long-term trends suggest that we should stand ready to consider in the future--not in the short term--a quota increase. First, we live in an increasingly globalized and interdependent economy, in which countries go through ups and downs. So, we will still have to deal with countries in trouble, requiring adjustment. Second, in this globalized economy, we will still need official financing to foster adjustment and to catalyze private capital flows. Third, the fiscal situation of industrial countries means that, for many years, there will be a declining trend in bilateral financing and, consequently, a rising trend in multilateral financing. The present high liquidity of multilateral institutions is, in this respect, a misleading occurrence. So, this issue is relevant, and it would be wise to prepare for it. Given the difficulty of this topic, I welcome early consideration of it.

With respect to the quota distribution, we have to make our best efforts to achieve an appropriate balance between three principles: stability, equity, and simplicity.

The distribution of quotas should not result in undue fluctuations from one quota review to the next, unless changes are warranted by underlying economic fundamentals. As the completion of the Ninth Review is still fresh in our memories, I consider it appropriate to keep a rather conservative line. In particular, I am satisfied with the recent arrangement as far as the ranking of the largest shareholders is concerned.

Equity is also a very important objective, and it gives rise to a number of issues. It is noteworthy, and in some way puzzling, that in using the same procedures in quotas formulas that were agreed for the Eighth and Ninth Reviews, there is a shift in the calculated quota share from the developing countries to the industrial countries. This trend may reflect the decline in shares of major oil-exporting countries, but it may also be partly an accident, as Mr. Zhang just explained. However, we should not accommodate that concern by challenging the role of GDP in the calculated quotas or by changing the way we take it into consideration. Challenging the role of GDP would be unfounded. In the long term, the greater the role of GDP in the quota formulas, the fairer they will tend to become.

In this respect, I regret that, for the membership as a whole, GDP still has the smallest marginal impact on calculated quotas. The average elasticity is 0.034, while it is 0.261, for instance, for the variability factor. This is a cause for concern, because GDP is the least biased measure of a country's relative economic size.

Changing the way GDP is taken into consideration does not appear to be very fructuous. Averaging GDP would make the measurement of members' relative economic positions too much delayed, and recent history shows that relative positions may change rapidly. Converting GDP data into SDRs, using an appropriate PPP index, might lead to endless methodological discussions. Besides, one could argue that an undervaluation of the quota is a cost of a strategy of undervaluation of the exchange rate, and it is to be expected that following such a policy would not be supported by the staff. Finally, it is noteworthy that this alternative would lead to the largest average percentage deviation from shares in customary quota calculations.

A better balancing of the share between industrial and developing countries could most appropriately be dealt with through the selective component of the quota increase. There is a strong case--if the results of the calculation on the reference period are misleading and do not take into account our knowledge of GDP trends--to use the selective component of a quota increase to correct it.

I also see a matter of equity in the fact that gold is valued at SDR 35 an ounce, while it could arguably be valued like the rest of reserves. Most central banks value their gold reserves close to market levels. Bearing in mind the monetary character of the Fund, it should follow the example of most central banks in this area.

I agree with Mr. Fukui that the nonlinearity of some of the formulas is a cause for concern.

The variability factor could be given a variable weight, depending on the relative size of the economies. It could be interesting to explore the possibility of increasing its weight for countries recording low and middle levels of GDP, i.e. countries with high external dependence, and eventually reducing its weight for countries with higher levels of GDP, i.e. countries with low dependence.

With respect to simplicity, I join the staff in favoring a linearization of the formulas and the use of a two-equation system.

I am skeptical about the possibility of adding new variables. They would only add complexity. Inclusion of financial variables is likely to open intricate methodology discussions for a rather deceptive or even counterproductive result, insofar as these variables are amplifying GDP discrepancies in favor of the wealthier countries.

These are my preliminary thoughts. We would be wise to continue our work without hurry, but with resolve.

Mr. Shaalan made the following statement:

First, an assessment of the adequacy of the working of the quota formula should continue to be guided by the four principles outlined in EB/CQuota/94/2. Thus, the quota formulas and the manner in which they are applied to determine quotas should to the extent possible yield a reasonable comprehensive measure of the relative economic size of member countries; reflect the creditor and debtor characteristics of members; minimize undue fluctuations in quota shares between successive quota reviews; and reflect relevant developments in the world economy.

Second, within the framework provided by these general principles, it may be feasible to introduce changes in the quota formulas with a view to addressing some of the concerns expressed in the past about the adequacy of the working of these formulas. Nevertheless, it is important to recognize that the general nature of general quota reviews significantly limits the extent to which the formulas, however improved, may be viewed as appropriate from the point of view of individual members or even groups of members. This shortcoming has indeed been long recognized, and it explains the tendency of the Executive Board over the years to exercise discretion in determining actual initial quotas.

Third, the issues raised by the apparent downward bias in the quota formulas that is reflected in the declining calculated quota shares of many developing countries may be addressed partly through preponderant use of equiproportional quota increases. However, a prolonged use of equiproportional distribution methods is not without costs, as it clearly results over time in the emergence and persistence of disparities between actual and calculated quota shares of individual members. Thus, it would seem necessary to introduce changes in the working of the formulas if the problems associated with the downward bias in question are to be meaningfully addressed.

Fourth, the staff has examined some modifications, including the possibility of incorporating additional needs-based variables in the formulas. Of the modifications considered, it is quite clear that the inclusion of the so-called poverty index produces the most pronounced change in the distribution of quota shares between the industrial and developing countries. This may be precisely the reason such a modification may not command the support needed to effect it--not that it is desirable in the first place, given the need to strike an appropriate balance between the ability to provide Fund resources and the need to use them. This leads me to wonder whether it may not be more productive to look into the possibility of introducing modifications in a variable already incorporated in the formulas; namely, variability, which is also a needs-based variable. In this context, it may be recalled that the variability coefficient was reduced in connection with the Eighth Review. And while the staff notes that, on balance, variability seems to be working in a relatively satisfactory manner, the fact remains that something may need to be done about the continuing decline in the calculated quota shares of developing countries. Increasing the coefficient of this measure may be a suitable vehicle for achieving that objective.

Fifth, concerns about the decline in developing countries' quota shares emanate generally from the bearing quotas have on shares in SDR allocations, access to Fund recourse, and members' voting power. These are all highly legitimate concerns. I shall not elaborate on the issues that pertain to the link between quotas, on the one hand, and SDR allocations and access, on the other. But, insofar as the share in total voting power is concerned, consideration could usefully be given to such options as increasing the number of basic votes allotted to each member. This would, of course, require an amendment of the Articles. But, in line with the approach suggested by Mr. Smee in connection with a possible effort to amend the Articles, this could be one of several possible amendments that could be studied and in time acted on in an integrated fashion.

Sixth, of the other modifications considered by the staff, it would probably be useful to use an average measure of GDP over several years instead of a single-year observation. A single-year observation could exaggerate or underestimate the calculation of a quota for a country at that time. An average may not have that disadvantage.

I can go along with the views expressed by the staff on a possible simplification of the quota formula, although I would have a strong preference for using the Bretton Woods formula in association with M4, particularly if the somewhat larger developing country share that this combination produces is structural in nature.

With respect to the staff paper on preliminary calculations for the Tenth Review, I can make the following preliminary observations.

As noted by the staff, the calculations and comparisons provided in the staff papers have a bearing on the size of any increase in Fund quotas under the Tenth Review. However, other important factors, including the interrelated issues of the Fund's liquidity and the Fund's role over the medium term, also have a bearing on the appropriate size of the Fund. As these factors are yet to be carefully considered, I am not in a position to express any views on the important issue of the size of the Fund for the current discussion. Nevertheless, if the experience with the Ninth Review is any guide, the analyses and the Board discussions that are likely to be needed could extend beyond the current deadline for concluding the Tenth Review. Therefore, it would seem best, in the circumstances, to utilize the remaining period under the Tenth Review to examine further the possibility of improving the working of the quota formulas, as may be appropriate in the light of the current discussion. A general quota increase could then be considered in the context of the Eleventh Review, which is to be concluded by March 31, 1998, with the understanding that if warranted by developments in the Fund's liquidity position, the date of concluding the Eleventh Review could be advanced. Such an understanding could be reflected in the Resolution concluding the Tenth Review.

Mr. Cippa made the following statement:

I welcome this opportunity to discuss the quota formulas and the preliminary calculations for the Tenth Review. At the outset, like Ms. Lissakers, I would oppose engaging in an inevitably long discussion of the Tenth Review. The Ninth Review has just been completed and has provided the Fund with a rather comfortable liquidity position; we do not see the need to go into another similar exercise for the time being. Therefore, we should close the Tenth Review now without any general quota increase, and begin work on the Eleventh Review in due time.

The current discussion on the working of the quota formulas is both technical and political; if an important element of it is to assess whether the formulas currently used to calculate quotas still fulfill a set of objective criteria, it would be best to answer the sensitive question of whether they still represent a reasonable compromise among member countries and, on this basis, whether changes are warranted.

In general, I agree with the criteria listed by the staff for assessing the working of the quota formulas. Quota formulas should reflect the relative economic size of a country, incorporate a rough balance between the weights of factors that affect both the supply and the demand for Fund resources, as well as reflect relevant developments in the world economy. At the same time, they should not result in wild fluctuations of the calculated quota from one review to the next.

Pursuing these objective criteria over time might require some modification of the quota formulas and, in this respect, I consider the past responses of the Fund to a changing environment to be appropriate. However, if we should indicate additional criteria, we would stress the importance of not changing the quota formulas too often, of making them straightforward, and of basing them on reliable and transparent data.

From Table 1 of EB/CQuota/94/1, it is striking to note how the distribution of actual quotas has shifted from the industrial to the developing countries. The aggregate share of the developing countries has risen from 24 percent in 1955 to almost 40 percent under the Tenth Review. More than half of these increases are related to the major oil producers, but the share of the non-oil developing countries also rose considerably by 7 percentage points to 29 percent. We realize that this is mainly a reflection of the rising number of members in this group, and that the aggregate share of the 81 developing countries that participated in the Fifth Review in 1970 fell by roughly 3 percentage points--in terms of both calculated and actual quotas--to 15 percent and 21 percent, respectively. This decline, however, corresponds to a slow fall in these countries' shares in world GDP and trade.

In addition, the difference between the actual and the calculated quota shares of each group of countries, industrial and developing, tended to narrow until the Ninth Review in 1990, but they have widened again since then. Obviously, we cannot let this gap widen much further, as this would contradict the policy intention of the Fund to bring actual quotas more in line with calculated quotas. Meanwhile, however, this effect softens considerably the decrease of the calculated quota share of non-oil developing countries.

With respect to the various proposals for improving the variables of the quota formulas, the use of the GDP variable is certainly the most debatable. The conversion of national GDP data into a common currency is a delicate problem, especially in the present international monetary environment, which allows for great exchange rate variability that might result in wild fluctuations of quotas from one review to the next.

One way to overcome this difficulty would be to convert national GDP using the PPP index, instead of nominal market exchange rates. We are opposed to this solution for several reasons. First, PPP indexes are confronted with serious data problems insofar as the surveys of the International Comparison Program are too infrequent and lack sufficient coverage. Second, as the staff points out, there are methodological problems with respect to the use of PPP-converted GDP and there is still no general agreement on important issues, such as the construction of PPP indexes. We should avoid choosing disputed variables for our formulas. Third, introduction of PPP-based GDP would be inappropriate, because this change would cause substantial shifts in the distribution of calculated quotas. Such a shift could seriously endanger the liquidity position of the Fund.

Another way to avoid large quota fluctuations owing to exchange rate variability is to use real effective exchange rates. However, there are two problems related to this proposal. One problem is the choice of the appropriate base year. Results of quota calculations change considerably, depending on whether one chooses a year in which one of the important currencies were overvalued or undervalued in relative terms. Another problem is the incompatibility of the real effective exchange rate method with the endeavor to keep the quota formulas straightforward and transparent, insofar as a utilization of this methodology would considerably complicate calculations. All in all, we remain rather skeptical about the use of the real effective exchange rate.

We are also not very enthusiastic about the proposal to use GDP averaged over a five-year or a three-year GDP period, instead of the single-year data, because this option reduces the realism of the quota calculations by using less current data. We recognize, however, that the use of single-year GDP data might cause some problems in future quota calculations, especially for the countries in transition, which are experiencing a sharp fall in GDP.

We agree with previous speakers that the proposal to value the gold in members' reserves at market prices should be seriously taken into account, be it only for equity considerations. The practice of the Fund to value the ECU holdings of members of the European Monetary System (EMS) as reserves, even if their deposit counterpart in the European Monetary Cooperation Fund consists in part of gold valued at market prices, does not agree with the principle of equal treatment of members and should be tackled as soon as possible; this is independent of the fact that a change in this practice is not expected to result in major changes in the distribution of quotas among members. The variability of current receipts is important, because it reflects the degree of stability of a member's external sector and its potential need to use Fund resources. Therefore, it relates directly to a major raison d'etre of the Fund, namely, to provide support to members in balance of payments difficulties. This chair opposes all three proposals by the staff aimed at reducing the variability element which results--ceteris paribus--in a substantial reduction of the quotas of members with highly variable receipts, in particular oil-producing countries.

The case for introducing needs-based variables into the quota formulas should not be ruled out a priori. However, the needs we are referring to should correspond to the objectives of the Fund as stated in the Articles. For example we would not accept a poverty index, even if it could indicate the potential need of a particular country for international financial support. The fight against poverty, although commendable, is not a direct objective of the Fund, and the inclusion of such an index in the quota formula might send the wrong message about the role of the Fund.

With respect to a variable reflecting financial market accessibility, we share the concerns expressed by the staff about the difficulty of finding a variable for which data are available for every Fund member. Moreover, empirical results suggest that most of the versions of a supplementary financial variable lack the necessary complementary character and are, therefore, potentially redundant. As the staff points out, the same kind of considerations would apply to a new debt variable: according to the staff's calculations, relative debt levels of developing countries are already reflected by current quotas. Moreover, the explicit consideration of a new debt variable could set a reverse incentive.

We have doubts about the usefulness of including a variable on access to private capital markets. It is argued that larger quotas should be given to those members who have no easy access to the private capital market and who, thus, can rely exclusively on their own limited reserves or on Fund resources. This is certainly a one-sided view insofar as the quota reflects not only the potential balance of payments need of a member, but also its potential creditor position in the Fund. The question of insufficient resources can be better dealt with in the context of an SDR allocation, which this chair supports, than in the framework of quota reviews.

The inclusion of a variable on exchange rate variability in the quota formulas is also problematic. As the staff indicates, the introduction of this variable might potentially have the perverse effect of lowering the calculated quota in the event of high exchange rate variability. This variable is likely to be correlated with others in the quota formulas.

As to the simplification of the quota formulas, the mechanism inherent in the actual quota formula system is responsible for numerous cases in which a positive growth rate of a member country's GDP can result in a decrease of its quota. The nonlinearities in some of the quota formulas are responsible for these anomalies. The staff proposes both to linearize these formulas and to discontinue the complex five-formula system in favor of a two-equation system. Although we are not in principle opposed to a simplification of the quota formulas, we are a little surprised to see the consequences of the proposed change on the quotas of member countries, as indicated in Table 25. Small open economies are supposed to bear the brunt of the proposed formula revision, and some of those countries were victims of the formula deficiency that the staff proposes to eliminate in the first place. For these reasons, we cannot support the proposed simplifications.

In conclusion, with the exception of valuing the gold in members' reserves at market prices--an item that should be seriously considered--we are reluctant to change the existing quota formulas. All in all, the existing formulas continue to represent a reasonable and satisfactory compromise, which provides a relatively good basis for deriving members' calculated quotas.

Mrs. Wagenhoefer made the following statement:

In commenting on the staff papers, I would first point out that the quota formulas and calculation methods that were introduced during the Eighth Review have proved to be adequate and, therefore, could be used for the Tenth Review.

The staff's preliminary calculations based on these formulas reflect members' relative importance in the world economy and are, thus, very helpful as a starting point for future discussions on an adequate quota structure.

It is important to note that the staff calculations do not purport to provide precise indications of the appropriate increase in the size of the Fund.

With respect to the main results of the staff's preliminary quota calculations, there are still many countries with relatively large discrepancies between their calculated and actual quota shares. This suggests, as the staff correctly points out, a continuing need for a selective element in any possible future quota increase. Table 6 of EB/CQuota/94/1 shows that these discrepancies are especially large in the case of many industrial countries.

As to the quota calculations for successor states of the former Soviet Union (FSU), the former Czechoslovakia, and the former Yugoslavia, I support the simplified procedure proposed by the staff, as the existing deficiencies in the statistical data base would make "regular" quota calculations--if I may call them so--very difficult, if not impossible.

As an aside, I note that there are also substantial weaknesses in the statistical data base of other countries. Thus, countries should be encouraged to improve their economic statistics and to provide the Fund with the necessary data on a timely basis.

Before taking up the working of the quota formulas, I would like to make four general remarks.

First, calculated quotas should reflect the relative importance of individual countries, not of groups of countries. Therefore, they must continue to be based on strictly economic criteria and on individual country data. For example, changes in quota formulas could not be justified by the sole objective to increase the share of a group of countries.

Second, when setting up quota formulas, we should not overemphasize specific functions, which can also be served in a different way. For example, if an increase in access to Fund resources is the intention, this objective could be achieved in two ways, namely, by either an increase in access limits or a change of quota formulas.

Third, quota formulas should not give misleading signals, which could have detrimental impacts on economic policies of member countries. For example, it would not be appropriate to increase the quota of a country for the sole reason that it has accumulated a high level of foreign debt.

Fourth, I strongly oppose the introduction of a poverty index in the quota formulas. Such an index is irrelevant in a monetary institution, which was founded, above all, to help members overcome temporary balance of payments problems. Even if the initial weight of the poverty index within the quota formulas were low, the mere introduction of such an index would be a problematic precedent and would very likely have substantial impacts on future quota increases. The introduction of such a variable would lead to a gradual change in the Fund's basic character toward an institution for development aid, which cannot be accepted.

It should be noted that the substantial increase in the quota share of developing countries achieved by the introduction of a poverty index might weaken the Fund's liquidity position, because fewer usable currencies from industrial countries would be available. As a consequence, the Fund might be forced to lower its access limits. Thus, the introduction of a poverty index would not serve the hoped-for purpose, but--on the contrary--would reduce the access of developing countries to Fund resources. The Fund has adequately taken into account the needs of developing countries by establishing a number of concessional facilities, such as the structural adjustment facility, the enhanced structural adjustment facility, and the ESAF successor.

In the light of these more general observations, I would like to comment on some specific staff proposals. I agree with the staff that calculated quotas continue to function as an adequate indicator of relative economic size and that there is no need for fundamental changes in the quota formulas. However, we should consider a number of modifications of some variables. For example, I could agree to use an average of GDP over several years, rather than GDP for one year, as is the current practice. In this context, I would prefer a three-year period in order not to unduly delay the adjustment of the quota structure to the most recent economic developments. However, if the majority of Directors favor a five-year period, I could go along with the consensus.

As to the valuation of gold in members' reserves, I concede that there is a discrepancy in the treatment of EMS members' reserves versus non-EMS members' reserves. However, reflecting the fact that reserves are included in the quota formulas with only a relatively small weight, any changes in the valuation methodology would have only a minor impact on the size of calculated quotas. Therefore, it is acceptable to continue the current valuation practice. In addition, I agree with the staff that any change in the valuation of gold should be discussed, if the need arises, in a wider context, and not in connection with the quota formulas.

I also agree with the staff that the present measure of variability of current receipts appears to be working in a relatively satisfactory manner. The results of the staff's calculations do not seem to call for any modifications in this area.

The staff paper concludes that the introduction of new variables into the quota formulas may not only lead to a number of intractable statistical problems, but would also reduce the importance of the existing variables, which are broadly adequate. Therefore, we should proceed with extreme caution in this area and should extend the quota formulas only if there is an urgent and obvious need to do so. Given the pros and cons of the possible new variables described in detail in the staff paper--i.e., needs-based variables, external debt, financial variables, capital account transactions, access to private capital markets, and exchange rate variability--I have come to the conclusion that none of these new variables should be introduced, as the "cons" of the variables outweigh by far their "pros."

With respect to the simplification of quota formulas, I have no reservations about the use of linear formulas in principle. Therefore, I can support the staff proposal referred to as option 2. However, I note that option 1--i.e., the use of only the Bretton Woods and the M4 quota formulas--has a disadvantage in that the nonlinear version of the Bretton Woods formula is still applied, which raises a question as to whether this option can really lead to a significant simplification. Option 3--i.e. the use of the linearized Bretton Woods formula and the linearized versions of the average derivative formulas not only sounds, but also is very complicated, so that its introduction probably would not be expedient.

Mr. Mwananshiku made the following statement:

The system of quotas is central to the working of the Fund. Quotas not only determine the liquidity position and lending operations of the institution, but they also affect the voting power of its membership. Therefore, it is appropriate, as we begin consideration of the Tenth Review, to take the opportunity to review the system under which quotas are allocated. This is particularly important this year, when the Fund is celebrating its fiftieth anniversary.

From the staff papers, it may be somewhat tempting to conclude that the formulas for allocating quotas are satisfactory and, therefore, nothing should be done to upset the existing system. However, a closer examination of the results produced by the present formula highlights a problem, as noted by the staff. This is the tendency implicit in the present formulas to depress the quota share of developing countries, while raising that of industrial countries.

For example, but for the increase in their membership since the Fifth Review, the share of the non-oil developing countries would have declined steadily from 24.7 percent just before the Fifth Review to 21.2 percent at present. This inherent downward bias against developing countries is evident from the calculations made for the Tenth Review. According to Table 1 of EB/CQuota/94/2, the calculated quota share of industrial countries--the number of which has increased by only 2--would increase under the Tenth Review from 65.9 percent to 70.7 percent, while the share of developing countries, the number of which has increased by 22--would fall significantly from 34.1 percent to 29.3 percent. This situation is portrayed even more sharply in Table 4 of EB/CQuota/94/1, which shows that the calculated quota shares of all developing countries, except a few, would fall under the Tenth Review. On this basis, it should be expected that, if the existing quota formulas were unchanged under the Tenth Review, the actual quota share of the developing countries would fall, while that of the richer countries would rise.

The downward bias in the formulas, especially in the case of countries heavily dependent on a few primary commodities, reflects at least two basic problems. First, the tendency toward a long-term decline in the price of primary commodities severely constrains the ability of these countries to increase their share of global trade, even though trade is an integral part of their economies. This has become a more serious problem since the 1980s, as demonstrated in the recent staff paper on the behavior of non-oil commodity prices. Second, the negative terms of trade effect, leading toward import compression and reduced investments, has adverse implications for GDP, one of the key variables in the quota formulas.

The impact of this downward bias in the quota formulas has been particularly severe on sub-Saharan African countries. The preliminary quota calculations show a further steep decline under the Tenth Review. For example, in the case of my constituency, the calculated quota share using the customary formulas drops sharply from 2.406 percent under the Ninth Review to 1.196 percent under the Tenth Review. All of the alternative calculations leave us worse off compared with the Ninth Review, even those alternatives that could improve the share of developing countries as a group. This means that, unless we find some other way of dealing with quota allocations, constituencies such as the one I represent will continue to become marginal in the Fund.

Revising the quota formulas to make adjustments for the predicament of developing countries, in general, and the low-income countries, in particular, should be a paramount goal of the Tenth Review. This would be consistent with the cooperative character of the Fund. Steps should also be taken to develop a quota structure that enhances the adjustment for the potential need for Fund assistance. We should make an effort to forge a consensus on these issues in the early stages of our deliberations. Of course, any changes would have to give due consideration to the impact on the liquidity position of the Fund.

EB/CQuota/94/2 draws attention to various suggestions that have been made by Directors in the past for improving the quota formulas. Most of these would improve the position of developing countries only marginally. The calculations involving a poverty index seem to benefit the low-income countries the most. The dilemma is that assigning larger weights to the poverty index would result in quite significant shifts in calculated quotas in favor of developing countries, while lower weights would be of little value to the low-income countries. For instance, the 90/10 methodology produces a calculated quota share for my constituency of 2.446 percent, just 0.04 percent greater than its calculated share under the Ninth Review.

In sum, the existing quota formulas have to be modified, owing to their tendency to reduce the aggregate share of developing countries, while raising that of industrial countries. In this connection, most of the alternative approaches presented in the staff paper do not go far enough in addressing our concerns. We need to do more work with the poverty index as well as examine the possibility of incorporating a correction factor to deal with the negative terms of trade effect on developing countries. Moreover, while the concept of simplifying the formulas might be appealing, we should direct primary attention to finding a set of formulas that meets the needs of all member country groupings.

Mr. Kafka made the following statement:

The first question to be addressed is whether we need an increase in quotas at this time. If the quota formulas mean anything, the growth of the sum of calculated quotas since the Ninth Review and the fact that actual quotas are still low relative to calculated quotas suggest--although they do not prove--that we do. We could, of course, decide that we should leave any additional balance of payments financing to be obtained entirely from the market. However, such a conclusion would surely be market romanticism.

We do need a larger Fund. The extent of our direct financial assistance is extremely low, market access for a huge portion of countries is low or nonexistent, and we must provide balance of payments financing to those countries that the major shareholders wish to assist for economic or other reasons, but for which they do not wish to assume the risks of this assistance or they simply do not wish--or are not prepared--to supply the resources bilaterally or through the Group of Seven.

If we decide to raise quotas--as we must--how should we go about it? The staff has made some interesting suggestions about simplifying the quota formulas, and we should spend some time considering those proposals, especially with respect to linearizing the Bretton Woods formula and adopting a two-equation formula.

I am also particularly attracted by the proposal to improve the working of the GDP variable in the quota formulas. The suggestion to average GDP over several years and to convert it by market exchange rates should certainly not be rejected out of hand. We should also study the convenience of using GDP data adjusted for real effective exchange rates.

These proposals seem to suggest the most useful changes in the quota formulas, but we will maintain a flexible position with respect to other suggestions. Certainly, selective quota increases should be an aspect of the Tenth Review. But, we would prefer a quick and imperfect conclusion of the Tenth Review to a perfect, but late, increase in quotas.

If the world needs the Fund, and I have no doubt that it does, it needs a larger Fund.

Mr. Posthumus said that he agreed with previous speakers that it would be desirable to conclude the Tenth Review without an increase in quotas. He wondered whether it would be possible, from a legal perspective, to complete the Tenth Review on the basis of the data period used under the Ninth Review.

The Treasurer responded that it was for the Board to determine the appropriate data period to be used in a review of quotas. Therefore, the Executive Board could send a report to the Board of Governors indicating that, after reviewing the adequacy of Fund quotas, it considered that there was no need for an adjustment of members' quotas at the present stage. On the basis of such a finding, the Executive Board could put forward a draft Resolution to the Board of Governors recommending that the Tenth Review be concluded immediately, and work could begin on the Eleventh Review.

Mr. Posthumus asked whether such a finding would apply only to an adjustment in the size of the Fund or to adjustments in individual members' quotas as well. For example, would it be possible to retain the current overall size of the Fund, but adjust the relative quota shares of some members?

The Treasurer replied that a determination that current Fund quotas were adequate could apply to all quotas, but that consideration could be given to increases in individual member's quotas, which could be considered outside the context of the Tenth Review.

Mr. Posthumus made the following statement:

I agree with previous speakers that we should complete the Tenth Review without a general increase in quotas, and I have a number of reasons for this. First, the growth of calculated quotas has slowed down, owing to lower nominal growth in the world economy. Therefore, the difference between actual and calculated quotas is smaller than it was in previous reviews, suggesting that the need for an increase in quotas is less pressing. In addition, the Fund's liquidity position has improved--mainly owing to the recent increase in quotas--which makes a new quota increase less necessary at present. Moreover, the controversies and frustrations of the Ninth Review justify both not reopening the discussion so soon and the unusual decision to complete a review without a general increase in quotas.

I would prefer to take a fresh start with respect to the Eleventh Review over the course of next year, thereby focusing on a timely conclusion of that review in order to guarantee that the Fund will continue to be in a strong position at the end of this century to react in an appropriate way to developments in the world economy, in particular a possible increase in credit demand from the countries in Eastern Europe and the FSU.

A swift conclusion of the Tenth Review would provide ample time to discuss the working of the quota formulas in the framework of the Eleventh Review. In this respect, I only want to make some preliminary remarks. It is necessary and useful to keep in mind the principles that have been generally accepted in successive reviews of the working of quota formulas. Both the creditor and debtor characteristics of the membership should be reflected in the formulas, and the adjustment of the formulas should not lead to an unduly disturbing change in the distribution of calculated quotas. In view of this latter principle, I do not see merit in a needs approach. Calculating quotas of individual countries on the basis of their potential demand should not be the leading principle. Such a way of enlarging the access of developing countries to Fund resources would affect the monetary character of the Fund by burdening it with the functions of a development institution. More generally, the Fund is not financed by government budgets; the Fund has a unique funding source, the reserves of its members, which perhaps limits its possibilities, but which should not be put in danger. I want to emphasize that, at the moment, the actual quota shares of developing countries are higher than their calculated quota shares, and their potential access to Fund facilities significantly exceeds the quota size. This would not be sustainable if debtor countries were to obtain substantially higher quotas. Another point is that the observed struggle for increased quotas is, at this time, largely a struggle for a free lunch. If the proposal to equalize unremunerated quota shares is accepted, higher quotas would also imply higher contributions to the Fund's general costs, and a higher share in the risks of the Fund.

On a more technical level, several proposals to remove anomalies from the current quota formulas deserve further consideration. For example, there is some merit to improving the definition of the GDP variable, in particular by averaging GDP figures instead of using GDP data for one year. This will also make it possible to pay careful attention in future quota calculations to developments in countries in transition. Moreover, the advantages of smoothing the effects of exchange rate variability and economic cycles on GDP calculations seem to outweigh the slower catch-up in calculated quotas of fast-growing countries. At the same time, I do not see much benefit in using alternative calculations based on PPP, because such calculations are artificial and complicated by data deficiencies. The same seems to apply to calculations based on real effective exchange rates. In order to remove the inverse relationship that exists in some cases between GDP and calculated quota, it could be useful to further consider the linearization of the quota formulas.

Mr. Waterman made the following statement:

I agree with previous speakers that it might be desirable to limit the scope of the Tenth Review, in particular by eschewing a general quota increase for all members. The case for that position can be seen in the Fund's current liquidity position and the fact that substantial quota changes were made only recently under the Ninth Review.

However, the preliminary quota calculations in Table 6 of EB/CQuota/94/1 indicate very clearly that for a small number of countries the calculated quotas under the Tenth Review exceed actual quotas by a very sizable amount. For some of these members a similar situation prevailed during the Ninth Review, and it has become a more pressing issue as time has moved on. For that reason, the Board should consider quota increases for the five countries that have differences between actual and calculated quotas that are the most marked. Korea is one of the countries concerned, and its preliminary calculated quota exceeds its actual quota more than two-and-a-half times. Korea's position was recognized at the time of the Ninth Review, but it was not remedied, owing to other issues that were being addressed at that time. I understand that many chairs were sympathetic to Korea's position and believed it was something that could be sorted out during the current review. In that respect, sympathy is one thing, but a bit of action would draw much greater appreciation.

Although calculated quotas do not convert automatically to actual quotas, in situations where there are very large differences in these two figures, it would be appropriate to consider some adjustment measures.

The work that has been carried out by the staff on the quota formulas is useful. I agree with other speakers that it is important to continually reassess these formulas to maintain the relevance of calculated quotas, but a strong case has not been established for a change in the way quotas are calculated at this stage, putting to one side technical improvements, such as how to deal with the problem of nonlinearity. I am relatively new to this subject, but like Mr. Autheman, I would be inclined, if anything, to increase the weight given to GDP.

Several issues of interest have been raised, including the proposals to include in the quota formulas a financial variable, a poverty variable, and the use of PPP measures. As the staff noted, PPP measures require further development--work and data is not available for some countries. Therefore, I do not see much value in pursuing this idea further at the present stage.

While it is certainly difficult to balance the needs of developing and industrial countries within a single quota measure, I would be circumspect about suggestions for incorporating either a poverty index or a financial variable, for the reasons given by previous speakers.

Mr. Dorrington made the following statement:

The Fund's liquidity ratios look quite healthy, following the substantial quota increase under the Ninth Review. Now that we have the systemic transformation facility, there seems to be no forthcoming facility that might boost use of Fund resources far beyond the level currently anticipated. In addition, now that the membership of the Fund has become universal, it is difficult to expect the addition of any new large borrowing country. For all these reasons, we see no need for a general increase in quotas as part of the Tenth Review.

However, there may be some scope for a few selective quota increases. Table 5 of EB/CQuota/94/1 shows that there are a small number of countries whose calculated quota shares are far in excess of their actual quota shares. Thus, there is a case for a modest selective quota increase for those countries whose actual quotas are most out of line. In that connection, we might wish to consider the top five countries on the list, namely, those whose actual quotas are less than half of their calculated quotas.

The staff paper on the working of the quota formulas is comprehensive. It addresses a number of possible changes to the formulas, but it offers only a few recommendations, concentrating mainly on the functional forms and number of the formulas, rather than on more wide-reaching changes. I am not persuaded that we need to change the formulas at all, but I can offer a few comments on some of the proposals.

With respect to the proposal to measure GDP based on the PPP index, it is important to note the severe technical shortcomings of the present method of deriving PPP exchange rates. These shortcomings seem to argue very strongly against using this approach, and we should reject the modification at this stage. There seems to be a more general objection to using PPP exchange rates. PPP rates help to measure relative domestic purchasing power accurately; thus, the issue is whether domestic purchasing power is relevant to an assessment of a country's capacity to make international payments. The question of whether quotas should be affected by differential changes in the prices of nontraded services is not relevant to the Fund. What is relevant is a country's participation in the international payment systems, and the variables currently used capture that participation effectively. Such an argument could be extended to exclude the GDP variable from the formulas altogether, although I accept that this suggestion is not likely to find sufficient support.

By contrast, the proposal to include a variable to measure financial strength seems to be promising. A measure of economic strength would be relevant to the Fund's monetary purpose. If the formulas are to be changed, I would support the inclusion of such a variable.

The staff suggests, instead, that we move to a system of real effective exchange rates for converting GDP data. The effect of this suggestion would depend on the choice of base year and would be no less of a lottery than the existing measure. Perhaps more mileage could be gained from using the World Bank Atlas method of an exponentially weighted three-year moving average of exchange rates in order to smooth out the effect of fluctuation. But that would certainly further complicate the calculations and may produce no significant benefits.

The staff argues eloquently that the present formulas contain a perversity, namely, the negative partial derivative of the quota formulas with respect to GDP for a great number of countries. It seems that the existence of this theoretical negative elasticity is not a sufficiently strong reason to change the formulas. The variables are so collinear that a rise in GDP would probably not be accompanied by a rise in some or all of the other variables. In order to be persuaded of the need for such a change, we ought to be sure that it is a practical problem. I wonder whether the staff could comment on whether any country has experienced simultaneously a rise in GDP and other variables from one quota review to the next coupled with a fall in its calculated quota, or whether there are a pair of countries, for which one has greater GDP and higher reserves than the other but a smaller calculated quota. If there are no--or only a few--examples of such cases, there is no case for changing the functional form of the current quota formulas. On the contrary, the formulas currently used to calculate quotas have served the Fund well for many years, and we should preserve them.

I note that the inclusion of a needs-based variable, such as the increase of per capital GDP could introduce a similar perversity. More generally, this could have the effect on the poorest countries of increasing their access to the facilities they cannot afford, but would have no overall effect on ESAF resources, although it could change their distribution. To the extent that Fund costs are allocated according to quota, inclusion of a needs-based variable could be to the disadvantage of the poorest members. More generally, it is not clear that there is a problem related to members' access to general resources of the Fund, and if there were, it could be addressed through access policy, including probably a more flexible application of the exceptional circumstances provision.

There seems to be no strong argument--beyond tidiness--for reducing the number of formulas used to calculate quotas. The increased power of computers suggests that the number of formulas does not impose any constraint on the calculation of quotas.

As to the suggestions put forward by other speakers, I could go along with the suggestion to measure GDP using a three-year average. I am not persuaded that a poverty variable needs to be included in the formulas; increased access can be dealt with through the access limits.

Mr. Lanciotti made the following statement:

The staff papers offer an illustration of the technical aspects involved in a general review of quotas and are to be commended for their comprehensiveness and clarity. They include, among other things, a detailed survey of the various statistical problems behind the definition of the variables used in the computation of formulas, an overview of the quota reviews that took place in the past two decades, and a broad analysis of the sensitivity of quotas to alternative assumptions underlying the calculations. The outcome of the latter consists of a number of simulations, based on a range of different criteria for the calculation of quotas.

In general, the problem involved in the review of quotas involves two basic elements which, for analytical convenience, can be disentangled as follows. The first element is the aggregate trend component, which involves the necessary increase of total Fund resources in view of the increasing size of the world economy and its financing needs. The second element is the distribution component, which is relevant if we correctly assume that each member country follows a different path, with changing macroeconomic patterns, and changing needs. I would like to share a few considerations related to both elements.

The large discrepancy that has evolved in the past 25 years between the actual and calculated size of the Fund is striking. Perhaps the staff could comment on whether calculated quotas should be interpreted as an indicator of the real need for Fund resources, or simply as a theoretical benchmark of what the Fund's size would be today based on the standard in 1969, when the two measures nearly coincided. Indeed, it is difficult to determine, in view of the figures in Table 3 of EB/CQuota/94/1, whether the Fund is undersized today, whether it was oversized 25 years ago, or whether the need for Fund resources has little or nothing to do with the indicators underlying the calculation of quotas. As the answer to the latter, obviously, is--or should be--no, the figures contained in the staff papers fail to answer the first two difficult questions. A more realistic approach to the calculation of quota increases should involve computing the rate of increase starting from the most recently agreed size of the Fund and not cumulating the calculated discrepancies. Should such an approach be followed, and considering that the last revision of quotas involved an overall increase very close to the calculated increase, the discrepancy between the actual and the computed size of the Fund would look much less dramatic.

The second element that becomes apparent from the staff papers is the persistence of disparities between actual and calculated quotas. As the staff notes, many members have shares in calculated quotas that are substantially different from their shares in actual quotas. This situation suggests a need for appropriate corrective actions aimed at narrowing the divergences through the implementation of selective increases of quotas. Nevertheless, it should be noted that changing the current configuration of quotas would probably change the balance between the creditor and debtor countries, thereby modifying the financial equilibrium of the institution. This effect could be offset by an overall increase in the size of the Fund, but the final outcome would depend on a series of factors that will have to be taken into account in the future work of the staff.

On a final--and perhaps more philosophical--note, the staff papers that constitute the background for this discussion clearly show that the actual distribution of quotas is not the necessary result of the working of universal principles; even significantly different distributions of quotas can be justified with the help of formulas and numbers, if we simply change the assumptions. In general, keeping this principle in mind helps to solve those problems, which involve political or judgmental, rather than technical, decisions.

Mr. Jiménez de Lucio made the following statement:

We found the summary of past debates on the subject of quotas and the specification of the issues for consideration by the Board contained in the staff paper particularly useful.

With respect to the preliminary quota calculations for the Tenth Review, the staff notes that the adjusted increase in the total of calculated quotas over the preceding review would be about 27 percent, a much lower percentage increase than the 75 percent average for the preceding five reviews--a consequence of the slowdown in the overall rate of increase in the economic data used for quota calculations. In addition, the staff states that the percentage excess of total calculated quotas over actual quotas has declined in recent years and that the extent of the disparities between actual and calculated quotas has continued to narrow since the Ninth Review, although a number of countries remain with relatively large divergences.

This scenario, coupled with the fact that the process of members consenting to increases in quotas under the Ninth Review is still under way, the Fund's current comfortable liquidity position, and the catalytic role envisaged for the Fund over the medium term, argues for careful consideration of the timing of the next quota increase. Inappropriate timing makes it more difficult to arrive at a consensus on the need for a quota increase or on the most appropriate size of the Fund and tends to generate unnecessary polarization with respect to the distribution of the corresponding contributions, even when such adjustment might be justified to enhance the effectiveness of the institution in the international adjustment process.

Any analysis on the working of the quota formulas must bear in mind that quotas are intended to reflect not only the relative economic size of members, but also other important factors, such as member' contributions and access to Fund resources, their voting power, and their share in the distribution of SDR allocations. We must strive to keep an adequate balance among these functions. We do not share Ms. Lissakers's view on the slippage of developing countries. It should be noted that their contribution to world economic activity, as reflected in recent world economic outlook simulations, has risen sharply. Instead of lending support to the notion of tilting the quota calculations away from wealth and trade criteria in favor of need, world economic developments over the past few years highlight the advisability of maintaining the existing balance by apportioning a significant part of any general quota increase in an equiproportional manner.

Overall, the formulas currently used to calculate quotas represent a workable compromise, although--like any human endeavor--they are subject to improvement. Among the technical improvements that deserve further consideration are: the possible future use of purchasing power weights; the inclusion of a new variable that better measures members' and needs for balance of payments financing; and the further simplification of the quota formulas, for example, by adopting a linear version of the present formulas. These improvements would permit the formulas to better estimate the relative economic size of members, and the need for Fund resources, and would help ensure a positive correlation between real growth and calculated quotas. This being said, however, we consider further work on quota formulas a low priority at this time.

Mr. Murphy made the following statement:

I agree with the comments made by Ms. Lissakers for the current discussion. It is time to conclude the Tenth General Review of Quotas with a recommendation that there be no increase in quotas on this occasion. Work can progress on the Eleventh Review in due course.

Like many other Directors, I studied with interest the staff paper on modifications of the Bretton Woods formula, including the introduction of new variables. I think the staff's work has been well worthwhile and is very clearly presented in the documents before us. By and large, I consider that we should acknowledge that the existing formulas have served us reasonably well--at least not badly in situations so inexact that judgment rather than fixed formulas must rule eventual outcomes. Nevertheless, the area of study is an interesting one, even though I can see no compelling reason to take on board new variables; this does not prevent further consideration of change in the light of the next Review. I join others in rejecting the PPP approach on the grounds of its impracticality in the light of missing information.

I could support efforts to simplify the quota formulas and reduce the number of equations to two. I also agree with previous speakers that there is a need to eliminate nonlinearities in the quota formulas.

From the illustrative quota calculations for the Tenth Review, I note that there are large disparities between the calculated quotas and actual quotas of some members, and I agree with previous speakers on the need to reduce these gaps. This implies that, in any future review, extra weight must be placed on the discretionary element in distributing any quota increase.

Mr. Koissy made the following statement:

Given the complexity of the issues raised in the staff paper, our position for the current discussion is only preliminary and limited to the working of the quota formulas. We look forward to further discussions on all the fundamental issues, including those related to the role and size of the Fund in the medium to long term.

The informative staff papers address the basic functions that quotas are purported to achieve. We generally agree with the staff that, in assessing the working of the quota formulas, we should pay due consideration to these functions. During the discussions on the Ninth General Review of Quotas, a number of Directors raised the issue of a balanced distribution of quotas among different country groupings and regions. Their concerns were not adequately addressed, thus perpetuating the existing imbalance in the distribution of quotas. As the Fund is a cooperative institution, special care should be taken to ensure that the quotas of country groupings or specific regions enable them to participate effectively in the decision-making process. In this respect, I share most of the views expressed by Mr. Mwananshiku concerning the decline of developing countries' quota shares and the use of relevant indices to reverse this decline. The Tenth Review provides an opportunity to tackle some of the unfinished business left over from the Ninth Review and to address, inter alia, the stark imbalance that exists between the industrial and developing countries in total quota shares.

Of course, it is important to bear in mind the need to provide sufficient liquidity to the institution to enable it to fulfill its mandate. All the basic functions that quotas perform clearly cannot be addressed by any given set of formulas. If the majority of Directors would agree on the need to correct the present imbalance among country groupings, the staff could be asked to prepare a paper that takes into account this concern and proposes appropriate solutions. In this context, Table 11 of EBS/CQuota/94/2 gives a range of possibilities that could help to achieve this objective, namely, through the use of per capita GDP.

We strongly agree with the staff and previous speakers that the methodology and formulas used to calculate quotas should be simplified and reduced to two equations. This would eliminate the perverse results these formulas have for some groups of countries, including those attributable to the nonlinear element in three of the five equations.

We are surprised to note that nominal GDP was used in the quota formulas, instead of a more relevant variable, such as real

GDP, or the growth of real GDP. We would support the use of average real GDP over the five-year quota review period in order to limit cyclical influences on the measurement of GDP, especially for an unrepresentative single year.

It is fortunate that considerable work has already been carried out in the context of the world economic outlook exercise on the conversion of GDP data for all countries to a common unit, That information is currently available well in advance of quota reviews. We should use the conversion methodology developed in this context, while strengthening it so that data in the World Economic Outlook and other Fund publications, in SDR terms, remain consistent.

The use of purchasing power parity-adjusted GDP would further improve the working of the quota formulas compared with the use of GDP converted at market rates. Therefore, we would support efforts to develop the PPP approach. More important, as the use of the PPP indices continue to expand rapidly for comparisons of regional and bilateral statistics, the Fund should, in collaboration with other international organizations, make the PPP indices available in a timely fashion.

The valuation of gold in members' reserves can be relevant only if the valuation is done on a broad base of all reserves, and at market price.

The variability of current receipts has made a substantial contribution to the calculated quotas of developing countries--major oil exporters and the non-oil developing countries alike--despite the reduction by 20 percent in the variability coefficient agreed in connection with the Eighth Review. Simulations for the Tenth Review also indicate that this variable will continue to perform relatively well for all groups, and we concur with the staff that there is no need to modify its coefficient.

While we commend the staff for its extensive work on the introduction of new variables--including needs-based, external debt, and financial variables--in the quota formulas, more consideration should be given to the needs-based variables, such as the use of per capita income. As Table 2 illustrates, the use of this variable should stem abrupt fluctuations in calculated quotas. Moreover, there is no major technical impediment to the computation of a per capita index. In addition, the use of such a variable would help to resolve in an appropriate and perhaps lasting manner many issues related to the distribution of quotas, including the issues related to the quotas of smaller member countries.

It is not surprising that, despite some improvements in the quota formulas, some member countries continue to express concerns about the working of the quota formulas. As Table 1 on the evolution of quota shares of groups of countries shows, there is reason to question whether the quota formulas provide an adequate measure of the relative economic size and the potential need of Fund resources for developing countries. In fact, the aggregate actual quota share of 81 non-oil developing countries, excluding the newest members, has steadily declined since the Fifth Review, reflecting a declining trend in the calculated quota share of this group. Yet, given the relatively stronger growth rate of real GDP recorded by this group of countries over the past years, it would be reasonable to expect a steadily rising trend in the calculated quota share of these countries. I wonder whether the staff could comment on this point.

We agree with previous speakers that the Fund has become a truly universal institution; thus, there is a pressing need to thoroughly assess the quota formulas in order to anticipate lengthy discussions on the occasion of future quota reviews. Therefore, we could agree to change the definition of certain variables, such as GDP, to introduce a few new variables aimed at stemming distortions between actual and calculated quotas from one review to another, and to simplify the methodology used to calculate quotas.

Mr. Mozhin made the following statement:

I agree with previous speakers that the gradual reduction of the gap between actual and calculated quotas and its eventual elimination should be our goal. However, before this can be achieved, a number of serious problems have to be overcome.

In the case of the Russian Federation and the other states of the FSU, the most important problem for this current quota review is the lack of reliable and methodologically correct economic data for the period preceding the dissolution of the Soviet Union in 1991. This problem is underscored by the fact that Russia does not appear in the staff tables that illustrate new calculated quotas for Fund members. Instead, the abbreviation "FSU" is used by the staff in all of the tables. This means that Russia's trade and external transactions with 14 other Fund members--which are our major trading partners and in some cases aid recipients--have not been taken into account. Our extensive discussions on that issue with the staff are still fresh in my memory.

In this context, I would like to draw the attention of the Executive Board to a recent working paper on measuring the transition: a user's view on national accounts in Russia

(WP/94/6), which offers several particularly interesting observations. This paper notes the surprisingly high degree of openness of Russia's economy, given that a very large portion of Russian trade is conducted with other states of the FSU. In fact, our foreign trade turnover as a proportion of GDP is higher than those of many small European economies.

Another important point relates to the usefulness of relying on the PPP method for assessing the size of a member country's economy. Large short-run swings in market exchange rates may lead to intriguing results in comparisons. For example, based on the ruble/U.S. dollar interbank market exchange rate, the size of Russia's economy in dollar terms more than doubled from the first to the second quarter of 1992. Accordingly, application of the PPP-based measure would help to avoid such misleading fluctuations in gauging the true size of the economy for the purposes of establishing the Fund quota.

In general, my authorities do not see any practical meaning in continuing to try to calculate a new single quota for the FSU. The countries of the FSU are very different. Four countries are now eligible for ESAF resources. Some of the countries are oil exporters, while others are oil importers. The pace of economic restructuring and GDP growth varies from state to state. For example, calculating a single poverty index for the FSU, or including the states of the FSU on the list of non-oil developing countries may seem absurd.

I would welcome the staff's efforts in addressing the formidable task of calculating 15 separate quotas for the countries of the FSU in the future. With this final remark, I would support the idea of completing the Tenth Review without a quota increase and moving on to the Eleventh Review.

Mr. Bergo made the following statement:

Let me first turn to the working of the quota formulas. Even if the calculated quotas are not directly reflected in the actual quotas, they constitute an important starting point and a basis for the process of deciding the actual quotas of member countries. The calculated quotas should, as reliably as possible, indicate the relative economic size of Fund members in the light of the ongoing changes in the world economy. These calculations are helpful not only in assessing the appropriate distribution of quota shares among members, but also in judging the appropriateness of a quota increase. Having said this, let me comment on the scope for improvement in the formulas.

In general, the present formulas seem broadly appropriate, and we do not see any pressing need for major changes. Specifically, I am not in favor of including new variables, such as a poverty index or financial variables, in the quota formulas. I agree with the staff that a poverty index would have an uneven impact on calculated quotas. Such a change would also have negative implications for the long-run liquidity position of the Fund. Including financial variables does not seem to have much impact on the calculated quota structure, and would mainly serve to complicate the calculations.

However, some simplification of the formulas, particularly with respect to the problem of nonlinearities, could be further studied along the lines suggested by the staff.

From the staff papers, it is striking to note the extent of data estimation that the staff has been forced to revert to. The extent of data estimation is a cause for serious concern, owing to its impact on the reliability of quota calculations.

I agree with the staff that the preliminary quota calculations indicate a need for a considerable increase in quotas, albeit a smaller increase than those agreed in past reviews.

The preliminary calculations show that many countries still have relatively large divergences between calculated and actual quota shares. Thus, there is a continuing need for a significant selective element in quota increases to narrow such divergences. Therefore, this quota review should aim at better reflecting individual countries' economic development and relative size in the world economy.

Calculations for the Baltic countries are made applying the distribution keys used under the Ninth Review, owing to assumed difficulties in getting reliable country-specific data from these countries. The same problem is, of course, valid also for the newly independent states, the former Czechoslovakia and the former Yugoslavia. For the Baltic countries, this means most likely an underestimation of calculated quotas. These countries had a higher portion of interrepublican trade than the average of other republics of the FSU during this period. We would argue that a separate data base should be used to the extent possible for these countries.

Mr. Al-Jasser made the following statement:

Let me start by joining Mr. Dorrington, Mr. Bergo, and Mr. Jiménez de Lucio in expressing the view that the quota system we have--as imperfect as it may be--is probably the best we can hope for. Without underestimating the importance of the quota review exercise, it would have been more productive if the Ninth and Tenth Reviews had been collapsed into one at the time that the Ninth Review was concluded. Therefore, I agree with Mr. Posthumus that a number of considerations argue for concluding the Tenth Review at this time without a quota increase and initiating the Eleventh Review. This view is predicated on the fact that the liquidity position of the Fund is at a very comfortable level and is projected to remain so through, at least, the end of 1996. Moreover, the Ninth Review, which resulted in a large increase in quotas is barely completed. In addition, the successor facility to the ESAF will satisfy most of the financing needs of eligible low-income members. Thus, I would join Ms. Lissakers in thanking the staff for a good job, and moving on to more pressing matters.

Turning to the working of the quota formulas, I found the staff paper comprehensive and informative. While some interesting issues have been raised with respect to the current formulas, it is not clear that tinkering with the formulas at this time would yield better results. Thus, I agree with Mr. Prader and Mr. Dorrington that we should not change the formulas, or anything else, unless there would be a major improvement and a significant difference between what we have and what we would end up with. It is clear from the staff papers and from Directors' comments for the current discussion that none of the changes to the variables that have been proposed is going to make a significant difference. Hence, the integrity of the existing formulas should be preserved.

The existing system of quotas, not only the formulas but also the quota system itself, has served us very well and has ensured reasonable stability. If we only look at the calculated quotas, for example, it may appear that some major changes will occur. But that is not how the system operates. Actual quotas are only partly influenced by quota calculations. That is why I was surprised to note the reference in Ms. Lissakers's statement to some of the single-country constituencies. The implication of Ms. Lissaker's statement is that the calculated quotas would be immediately reflected in actual quotas; of course, that has never been the case. We have historically had the major increase in quotas distributed equiproportionally to actual quotas while allowing for a smaller selective increase in order to bring members' actual quotas in line with their calculated quotas over time. This methodology can be thought of as the shock absorber in the system, and it has worked well for both developing and industrial countries. Stability of the system has always been paramount, and we would be well advised to keep it.

Having said this, let me turn to the four major areas that have been reviewed in the staff paper, in the order they were presented.

As to the weights in the quota formulas, the calculations in the staff paper show that, for the majority of countries, the contributions of the various variables have changed little between the Ninth and Tenth Review. Thus, I agree with the staff that there is no need for changes in the coefficients of variables in the quota formulas at this time.

I agree with the staff that while the use of the PPP index to convert GDP data would seem desirable, data deficiencies inherent in the presently available PPP indexes argue against such a change. It could also be argued that the use of GDP data adjusted for real effective exchange rates would be impractical, because it suffers not only from similar data deficiencies, but also from problems associated with the choice of an appropriate base year. On the issue of GDP averaging, while some smoothing of the volatility of the data would take place and would be an improvement, smoothing will also penalize the fastest-growing members of this institution.

As the ECU counterpart of the gold deposits with the European Monetary Cooperation Fund reflects a market valuation of gold and is included in reserves of EMS countries, it could be argued that gold holdings of all members should be valued at market rate. However, this issue is basically moot as the staff calculations indicate that virtually all shifts in individual quota shares from such a change are small. Very similar results were reported during the Ninth Review. Moreover, ECU holdings are arguably more liquid than gold holdings.

With respect to the variability of current receipts, I agree with the staff that, on balance, the present measure of variability seems to be working in a satisfactory manner, and the results of updated calculations do not seem to call for modification in the variable or in the size of its coefficient in the quota formulas. Having said this, and for symmetry in the analysis, it would have been useful to see the effect of an increase in the coefficient for variability by, say, 20 percent. As Mr. Shaalan indicated, this is particularly relevant as the coefficient was reduced by that amount in the Eighth Review and as variability has been increasing for most countries. Moreover, variability of current receipts could be one of the most important factors leading to temporary balance of payments imbalances, and, hence, for the need to use Fund resources as well as the ability to contribute resources.

The inclusion of a needs-based variable--i.e., per capita GDP--into the quota formulas would lead, as the staff paper shows, to a major redistribution of quota shares. The shares of the relatively high-income countries, industrial and developing countries, would decline in the total of calculated quotas, and the share of the relatively low-income countries would increase. I agree with the staff that such a change could have implications for the long-run liquidity position of the Fund. Moreover, it is worth recalling that the Fund is essentially a monetary institution. The same arguments would apply to the inclusion of external debt variables.

With respect to financial variables, the staff makes a convincing argument for exclusion of these variables. Correlation between financial variables and the existing variables in the formulas not only creates statistical problems, but also indicates that most of the information contained in the financial variables are for the most part already reflected in the other variables being used.

The increasing importance of capital transactions in the working of the international monetary system is a valid argument for including it in the quota formula. However, as the staff rightly notes, this variable has both measurement problems and multicollinearity problems.

The suggestion to compensate for lack of access to private credit markets by increasing countries' quotas in order to enlarge their access to Fund resources is a cause for concern. It is important to note that the Fund's role is merely catalytic in mobilizing financing. As such, the Fund should not be, or be perceived to be, the major lender to a country, as this would not only place an inordinate amount of risk on the resources of the Fund, but also could potentially undermine its liquidity.

Exchange rate variability is likely to be the result of unstable macroeconomic policies or large external shocks. In the former case, it is obvious that countries should not be rewarded with higher quotas for their lack of stable macroeconomic policies. For the case of external shocks, it is likely that the contribution of this variable would be limited as it probably correlates with reserves and variability.

I agree with the staff that a good case could be made for linearizing the nonlinear formulas in order to correct for the many cases of a negative relationship between changes in the calculated quotas of countries and the growth rates of their GDP. However, it is not clear what merging the four quota formulas into one will accomplish. Initially, the reason for creating four formulas, in addition to the Bretton Woods, was to try to capture the differences in the various economies; consolidating these formulas into one formula could defeat this purpose.

In conclusion, I see no need for an increase in quotas at this time. Therefore, we should conclude the Tenth Review, with no changes in actual quotas, as soon as possible. Moreover, the existing formulas for calculating quotas, although imperfect, are working reasonably well, and no purpose could be served by tinkering with them.

Mr. Ismael made the following statement:

I agree with previous speakers that, at the present stage, there is no compelling need for a general increase in quotas, in view of the relatively comfortable liquidity position of the Fund and the fact that the Ninth Review has only recently been completed.

Therefore, I can agree with Ms. Lissakers and other speakers that we should call for a speedy conclusion of the Tenth Review.

We can then proceed with discussions on the Eleventh Review, as suggested by Mr. Posthumus, where we can examine whether or not the present set of quota formulas really merits a change.

With respect to the staff's suggestions, let me offer my preliminary comments.

The present set of quota formulas, other than adequately reflecting the needs of the developing countries, has been working satisfactorily. It has been widely acknowledged that the use of a GDP measure denominated by a standard unit of account underestimates the size of the economy of developing countries. Therefore, the present set of formulas, using the standard GDP measure, contains an inherent bias against the developing countries. The fact that developing countries were offered larger quota shares in past reviews has not adequately remedied this anomaly. A PPP index should, in this connection, represent an acceptable alternative. However, I agree with the staff that, before a universally accepted PPP index can be used, data deficiencies have to be overcome and methodological issues need to be addressed.

The numerous developing country members that have joined the Fund since the Fifth Review have led to the increased share of developing countries in total Fund quotas. This expanding share, however, has masked the fact that the share of the original group of 81 developing countries has actually been declining. This perverse result points to the necessity of introducing needs-based variables. Therefore, it would be worthwhile to continue exploring the variety of acceptable needs-based variables that could reflect the stage of economic development and financial requirements of member countries. In this connection, I note from the staff paper that the use of a qualitative variable, which denotes the degree of access to private capital markets, has proved to be useful in more accurately representing the needs of the developing countries for Fund assistance. I support the suggestion that this variable be included in the set of quota formulas.

Finally, I can also endorse the staff proposal to simplify the present set of formulas through the use of a small set of two linear equations.

Mr. Raza made the following statement:

As the Ninth Review was completed only in November 1992, we agree with Ms. Lissakers and some other Directors that it would be premature at the present stage to embark on another round of substantive and protracted discussions on the need and scope for a further increase in quotas. Therefore, it would be best to expeditiously conclude the Tenth Review and take up the work related to the Eleventh Review--not now as suggested by Mr. Posthumus, but, say, in two years. One great advantage in taking up the discussion at a later stage is that, by then, it is to be hoped, post-1990 data would have become available. The years since 1990 mark a sea change in the fortunes of a large number of industrial countries, developing countries, and the republics of the FSU. In fact, given the magnitude of the changes in this period, it would be anomalous to attempt to make any changes in Fund quotas at this stage on the basis of 1985-90 data, especially as these data have become out of line with reality.

I am, therefore, in favor of concluding the discussion on the Tenth Review and taking up these matters at the time when the Eleventh Review becomes due.

However, if the above suggestion is not acceptable and the consensus is to start the work on Tenth Review, then we would like to follow up on the suggestion made in the technical paper presented by this chair during the discussions on the Ninth Review, which, inter alia, stressed the need for integrating the poverty criterion and needs-based approach in the formulas. As Directors would recall, the Chairman had conceded the importance of the issues raised in our paper and indicated that, as it was too late to take up a review of the quota formulas for the Ninth Review, it would be taken up under the Tenth Review. Unfortunately, the staff paper for the current discussion has not covered this aspect in depth. Thus, in the event that Committee members agree to go ahead with substantive discussions on the Tenth Review, we would like the staff to analyze the full implication of integrating the poverty criterion and needs-based approach into the formulas, to enable Directors to take these into account in reaching a decision.

Mrs. Wagenhoefer has pointed out the irrelevance of a poverty index for a monetary institution. I wonder whether poverty is more irrelevant than social safety nets, income redistribution, and the environment--issues in which the Fund is getting increasingly more interested.

As pointed out by many other Directors, the way GDP has been used in the quota formulas is not satisfactory. There is an urgent need to improve its use. We would prefer the use of PPP-based GDP. This would no doubt raise a number of methodological issues. However, these issues need to be sorted out; the present method has created, and will continue to create, serious distortions. We would like the staff to further examine the methods used to calculate GDP. For the same reason, we would prefer to use an average of GDP data over a specific period.

Mr. Marino made the following statement:

Like several previous speakers, we find it useful to start the careful and systematic analysis of quotas under the Tenth Review. Therefore, we welcome the comprehensive and useful staff papers for the current discussion.

We strongly support the Tenth Review of Fund quotas, and we hope that it will help to harmonize actual quota shares in relation to calculated quota shares, particularly for those countries whose quotas are more seriously out of line with their relative economic positions. The harmonization of quotas is of the utmost importance for the institution. It is to be hoped that it will be addressed in the context of the Tenth Review. If not, it should be addressed in another context.

Quotas should be a comprehensive measure of relative economic size, they should reflect both creditor and debtor characteristics of members, the distribution of calculated quotas should not result in undue fluctuations from one quota review to the next, and quota formulas should reflect relevant developments in the world economy.

I will make some preliminary comments on the current working of the quota formulas, in particular with respect to the weight of the variables in the quota formulas; changes in the definitions of the variables; inclusion of new variables; and simplification of the quota formulas

The staff concludes that changes in the weight of current variables are not needed. However, the specification of external sector variables could be improved to better reflect a country's potential need for Fund resources or its potential contribution to financing Fund operations. For the latter countries, the level of reserves seems to be a better indicator and, even recognizing its disadvantages, it is implicitly accepted by the working of our present operational budget. From this point of view, an increase in the weight of reserves may be justified. As to the combined weight of current account variables, I have doubts about the rationale behind the particular weight attached to current receipts and payments. Table 4 of EB/CQuota/94/1 shows that the contribution of current receipts and payments in calculated quotas is 2.3 percent and 39.8 percent, respectively. We do not see a clear rationale either for the big difference in the weight of current receipts and payments or for the big contribution of current payments in the calculated quotas. Equally, one could find the weight given to variability excessive. For example, in the case of oil-exporting countries, this explains 52.6 percent of their total calculated quota.

The treatment of the customary formula is appropriate. We do not perceive clear advantages in the use of PPP-adjusted GDP or in the use of adjustments based on real effective exchange rates, at least at the present stage. This adjustment, while addressing difficulties stemming from the conversion of GDP to a common currency, creates new problems that have not yet been properly solved. Averaging GDP could aggravate the existing lack of synchronization between calculated quotas and members' relative economic positions, which would be undesirable. For all these reasons, it is better to maintain the current GDP treatment. Finally, we encourage the staff to update GDP as well as other variables to the extent possible, in order for calculated quotas to better reflect members' actual relative positions.

As to new variables, namely, a poverty index, financial market access, external debt, and the inclusion of financial variables, we agree with the staff's conclusions. New variables are either implicitly taken into account in the customary formulas, distort the nature of the quotas, do not have a clear technical justification, or imply a significant departure from the present distribution of calculated quotas. Moreover, as the staff pointed out, in most cases, the use of new variables would have a small impact on quota calculations. In short, new variables do not seem to add much compared with the present variables.

We are open to consideration of the staff's proposal for simplifying the quota formula.

Given the existing disparities between actual and calculated quota shares, efforts should continue to be made to bring the structure of actual quotas into line with calculated quotas and with a members' relative economic positions, especially in the case of countries that are more out of line in this respect.

Disparities between some member's actual and calculated quotas increased somewhat under the Ninth Review, partly owing to the favorable treatment given to new members in determining their initial quotas compared with existing Fund members. Under the Tenth Review, the staff calculations included in Table 5 of EB/CQuota/94/1 suggest that those discrepancies, both in terms of the total number of countries and the total quota share, have increased with respect to the Ninth Review. For example, the number of countries with calculated quota shares at least 40 percent larger than their existing quota shares, has increased from 18 to 21.

In conclusion, there is a case for a relative adjustment in quotas in the context of the Tenth Review. The harmonization of calculated and actual quota shares is considered of the utmost importance by my Spanish authorities. The substantial differences between calculated and actual quotas in some countries should be addressed in any possible way.

Mr. Mirakhor stated that he agreed with Mr. Kafka on the need for a general increase in quotas under the Tenth Review. As several other Directors had noted, there was a need to reduce the large discrepancies that existed between the calculated and the actual quotas of many countries.

As Mr. Waterman had noted, during the Ninth Review, many Directors had expressed sympathy for Korea, whose actual quota was significantly out of line with its calculated quota, but no action had been taken to correct that problem, Mr. Mirakhor recalled. He hoped that the Board would also give sympathetic consideration to the case of Iran, which also suffered from a large discrepancy between its actual and calculated quotas.

Given the need for selective quota increases to bring the actual quotas of some countries more closely into line with their calculated quotas, the Board should consider some objective criteria that could be applied in determining which members should receive selective quota increases, Mr. Mirakhor suggested.

While the formulas currently used by the Fund to calculate quotas were broadly appropriate, there was a need to review the methodology used to calculate members' GDP for the purpose of calculating quotas, Mr. Mirakhor considered. In that connection, he could sympathize with the Directors who had requested further consideration of the use of PPP indexes or the use of effective exchange rates.

Table 4 in Appendix I of EB/CQuota/94/1, showed that the preliminary quota calculations for the Tenth Review would give perverse results for some members, reducing their share in total quotas, Mr. Mirakhor said. Most of those countries were either directly involved in the Middle East crisis of 1990 or indirectly affected by it. For example, the calculated quota share of the Philippines under the Ninth Review was 0.315 percent; under the Tenth Review, it would be 0.267 percent. Although the Philippines was not directly involved in the Middle East crisis, it had been adversely affected by the reduction in workers' remittances brought about by the conflict. Moreover, there were some drastic changes in the calculated quota shares of some countries. While the calculated quota share of Saudi Arabia under the Ninth Review was 5.075 percent, it would be 2.524 percent under the Tenth Review. Those results demonstrated the theoretical and methodological problems involved with the use of single-year GDP data in the calculation of quotas. Moreover, the use of 1990 as the base year in the context of the Tenth Review would lead to a particularly biased result.

For the current discussion, a number of Directors had put forward suggestions on how the formulas currently used to calculate quotas could be improved, Mr. Mirakhor noted. He looked forward to further discussions on the working of the quota formulas, which could be based on alternative illustrative quota calculations to reflect Directors' suggestions. In light of the fact that it had taken the Fund an average of 5.5 years to complete previous quota reviews, there did not seem to be any press of time for completing the Tenth Review.

Ms. Lissakers stated that, from the current discussion, there did not seem to be strong support for increasing the size of the Fund at the present stage. There also did not appear to be overwhelming support for any of the specific proposals to alter the formulas used to calculate quotas. Moreover, given the timing related to general reviews of quotas, Directors would be most concerned about how any change in the formulas would affect their countries' shares under the Eleventh Review.

She agreed with previous speakers that there had been dramatic changes in the world economy since 1990, Ms. Lissakers continued. More important, there had been a dramatic change in the membership of the Fund, which had grown by roughly 20 percent, giving rise to an array of other complicated issues. In the light of those considerations, it clearly would not be appropriate to continue a prolonged general review of quotas on the basis of data ended in 1990.

As other Directors had correctly pointed out, there was a need to address the anomalies in the current distribution of quota shares among countries, in particular those of the FSU, Ms. Lissakers added. However, in the circumstances, the most effective way to proceed would be to complete the Tenth Review at the present stage and then move immediately to the Eleventh Review, which would allow the Board to consider members' quotas on the basis of up-to-date information.

She agreed with Mr. Autheman that the Fund should not be locked into assumptions based on developments over the past decade, Ms. Lissakers concluded. Instead, it should be prepared for the changes--and the increased demands on its resources--that were likely to arise in the near future.

Mr. Lanciotti asked whether the staff could comment on whether there was a significant difference in practice between continuing the work related to the Tenth Review and concluding the Tenth Review and beginning work on the Eleventh Review.

The Treasurer recalled that the Fund's Articles of Agreement specified that general reviews of quotas were to be conducted at regular intervals of not more than five years. The Fund was currently in an overlap between the period of the Tenth Review, which had ended on March 31, 1993, and the period of the Eleventh Review, which started on April 1, 1993. In concluding the Ninth Review, the Board of Governors had asked the Executive Board to further examine the working of the quota formulas in the context of the preparatory work for the next review of quotas. As it had not been possible to complete the work related to reviewing the quota formulas before March 1993, the Board of Governors had asked the Executive Board to continue its work on the Tenth Review and to submit a report, together with appropriate proposals, to the Board of Governors by December 31, 1994.

As the Board had, in the context of the current discussion, fulfilled its commitment to examine the working of the quota formulas, it could prepare a report to the Board Governors, recommending that the Tenth Review be concluded immediately and putting forward an appropriate draft Resolution, the Treasurer said. In the circumstances, such a report could merely state that, after reviewing Fund quotas, the Board had determined that there was no need to make any adjustment in quotas at the present stage. Thus, the Tenth Review would officially conclude once the Board Governors approved such a Resolution.

Meanwhile, as the period of the Eleventh Review had already begun, it would be for the Executive Board to determine, in the context of the Fund's work program, the best way to proceed with that review of quotas, the Treasurer stated. According to the Fund's Rules, the Executive Board would not need to establish a Committee of the Whole for the Eleventh General Review of Quotas until March 1997, one year prior to the end of the period for the Eleventh Review. However, as Directors had noted, it usually took more than one year to complete a general review of quotas, and it had been the practice of the Board to consider quotas in a Committee of the Whole well before one year prior to the end of a quota review period.

For the current discussion, a number of Directors had pointed to various elements of the methodology used to calculate quotas that warranted further examination, the Treasurer continued. For example, the continuing decline in the share of the group of developing countries was a cause for concern, and it was not clear whether the formulas were providing perverse results. While the preliminary quota calculations for the Tenth Review showed an increase in the quota share of the group of developing countries in the Fund total, that increase was attributable to the recent, large increase in the Fund's membership. A constant sample of developing countries' quotas covering the period 1969-94 would show a continuous decline in the share of developing countries as a group, which--if left unchecked--could get worse in the future.

The decline in the share of developing countries seemed to result from two problems in the methodology currently used to calculate quotas, the Treasurer went on. First, the use of market exchange rates was clearly no longer a reliable means to convert GDP data from national currencies into SDR equivalents, especially on the basis of single-year data. The continued use of market exchange rates for the conversion of GDP data over time could negate the real growth rates of some of the developing countries, as in the case of China. While averaging GDP data over a period of, say, three or five years, might serve as a second-best solution, there was a need to re-examine the methods used to covert GDP data into SDR equivalents for all members. In light of the problems related to the use of the PPP index, the use of real effective exchange rates as a basis for the conversion of data might be the most appropriate solution, but further work on that subject was needed. Second, there was an ongoing problem with respect to the quality of the data that was being submitted to the Fund, the Treasurer added. Indeed, the 1990 data used in making preliminary calculations for the Tenth Review was probably the least reliable database presented to the Board in recent years. Those data contained a great deal of estimation by the staff not only to fill in gaps of data not reported to the Fund, but also to enhance the quality of the data that had been estimated by country authorities. In that connection, it would not be helpful to immediately move to the use of a more recent data period, the Treasurer commented. For example, inclusion of the data for 1991 in the calculation of quotas under the Tenth Review would have rendered a database that was--by more than 40 percent--estimated in some part by the staff. If, in a year or two, the Board wished to take up the Eleventh Review on the basis of a continuum of data, it would be possible to include reasonably reliable data for 1991, and possibly for 1992, in the database.

The availability of reliable data was a particular problem with respect to the successor states of the former Yugoslavia, the former Czechoslovakia, and the FSU, the Treasurer noted. In that connection, it should be noted that the calculation of quotas required an historic sequence of data going back as far as 1976, and it was all but impossible to disaggregate the data of the FSU into data for the 15 individual successor states.

Mr. Mirakhor asked whether the staff had attempted to calculate quotas on the basis of a data period ended in 1989.

The Treasurer replied that, as the Fund had traditionally conducted general reviews of quotas on the basis of consecutive five-year data periods, a four-year data period from 1985-89 would not have been in keeping with previous practice. The only single-year data used in the quota calculations were those for GDP and reserves, and the base year for such data under the Tenth Review was 1990.

Mr. Mirakhor asked whether the staff could provide illustrative quota calculations using data on GDP and reserves for 1989, instead of 1990.

The Treasurer responded that, given the traditional data periods used in quota reviews, the staff had not foreseen a need to compile individual GDP data for 1989. Moreover, given that the other variables used in the calculations would be based on data for 1986-90 or 1978-90, the use of single-year GDP data for 1989 would tend to skew the relationship between the GDP data and other data, such as that related to current account transactions.

Mr. Mozhin said, with respect to the proposal to conclude the Tenth Review immediately and to move to the Eleventh Review, that he wondered what data period would be used for the Eleventh Review.

The Treasurer stated that the Board could determine the data period to be used in a review of quotas. According to traditional practices, the data period used in the Eleventh Review would depend on when the Board began the work related to that review. If the Board wished to begin work on the Eleventh Review immediately, using a continuum of the data used under the Tenth Review, it would be difficult to improve on the database currently available. At the same time, if the Board began its consideration of the Eleventh Review in 1995, it would be possible to include data for 1991 or, perhaps, 1992, in the calculation of quotas. If the Board chose to adhere to the traditional timetable for general reviews of quotas, i.e., to complete the Eleventh Review by 1998, it could do so on the basis of data for 1991-95.

Mr. Fukui commented that, although he was not in a position for the current discussion to take a position on the proposal to conclude the Tenth Review immediately, it was important to note that Directors had raised several important issues that warranted further consideration, even though they were not on the agenda for the current discussion. For example, there was clearly a need to examine the concerns that had been expressed about the declining quota share of developing countries in the Fund. There was also a need for the Board to carefully consider the likely financing needs of the states of the FSU before concluding the Tenth Review.

Mr. Posthumus suggested that, although the issues referred to by Mr. Fukui were not on the agenda for the current discussion, it would be useful to clearly identify the remaining issues for consideration at the present stage in order to avoid prolonged consideration of the Tenth Review.

It was important to note that, while the Fund was obliged by the Articles to conclude the Eleventh Review before 1998, it could do so earlier if developments in the world economy called for an adjustment of quotas, Mr. Posthumus considered. Nevertheless, there would probably be no need to increase the size of the Fund in the coming few years.

It should also be noted that it would be all but impossible to change the current formulas used to calculate quotas--which would result in a redistribution of Fund quotas--without increasing the size of the Fund, Mr. Posthumus stated. Therefore, it would be better to take up such matters in the context of the Eleventh Review than to needlessly prolong the Tenth Review until it would become necessary to also postpone the next general review of quotas.

Mr. Marino commented that, in order to bring the Tenth Review to an immediate conclusion, the Board would need to report to the Board of Governors that there was no need to adjust quotas at the present stage. That was not the case, in particular given the significant discrepancies that currently existed between many members' actual and calculated quotas. He wondered whether there was any means outside of a general review of quotas to reduce the discrepancies between the actual and calculated quotas of 10-15 members.

The Treasurer noted that the timing of quota reviews was up to the Executive Board to the extent that it could determine when to begin work on a general review of quotas and when to forward its recommendations to the Board of Governors. In that connection, the Board had brought forward the timing of previous quota reviews. For example, the Eighth Review had been brought forward by two years. Also, an overlap had occurred in the work related to the Sixth and Seventh Reviews, when the Sixth Review--which entailed a very small increase in quotas--was delayed owing to the coming into effect of the Second Amendment of the Articles. Before the Sixth Review had come into effect, it became clear that the Fund needed a larger increase in quotas, so the Board accelerated the work related to the Seventh Review.

As Mr. Marino had noted, the Executive Board's report to the Board of Governors on the Tenth Review would need to comment on the adequacy of current quotas, the Treasurer continued. While it could also comment on the appropriateness of the current structure of members' quotas, or on individual quotas, that would be rather unusual, but it could recommend that the Executive Board could examine, say, a particular class of quotas. It would be possible to address the rather substantial disparities between some members' actual and calculated quotas through ad hoc quota increases, such as in the recent case of Cambodia, as a member could always request an ad hoc increase in its quota. Furthermore, it would also be possible for the Executive Board to indicate in its report to the Board of Governors that Fund quotas were adequate in general, but that it intended to review the quotas of a group of countries to determine whether increases in the quotas of that group would be appropriate.

Such a situation had arisen in the case of the Third Review, when the Board agreed that there was no reason to increase quotas in general. Soon afterward, the Board undertook an examination--outside the context of a general review--of the situation of countries with quotas of less than SDR 30 million, which also had implications for members in the next highest group, namely, those with quotas of SDR 30-60 million, the Treasurer went on. In that case, the Board put forward a report and draft Resolution to the Board of Governors, calling for quota increases for a particular group of countries whose quotas were considered to be out of line with their calculated quotas.

That experience showed that the Executive Board had at its disposal a great deal of flexibility in determining what it wished to recommend to the Board of Governors as regards the issue of quota increases, the Treasurer noted.

The Acting Chairman recalled that, at the beginning of the Eighth Review, as Executive Director for the United States, he had made a statement very similar to the one Ms. Lissakers had made for the current discussion. However, shortly thereafter, the debt crisis broke out, and the sudden need for additional liquidity in the world economy spurred the Board to accelerate the pace of the Eighth Review. That experience showed how difficult it was to try to predict the future needs of the membership.

Mr. Lanciotti asked whether the staff could comment on the disparity between the calculated size of the Fund and the actual size of the Fund that had arisen over time, as shown in Table 3 of EB/CQuota/94/1.

The Treasurer responded that Table 3 of EB/CQuota/94/1 showed that increases in the size of the Fund had not been kept in line with the growth of the world economy over time. In the period since 1962-63, when the formulas used to calculate Fund quotas were revised to reduce the weights in the Bretton Woods formula by one half, the results of quota calculations were half the amounts they would have been prior to 1963. Thus, the result of the Fifth Review, which increased the actual size of the Fund to about SDR 29 billion at a time when the Bretton Woods formulas would have produced a calculated quota for the Fund of SDR 29 billion was coincidental. If the weights originally used in the Bretton Woods formula had been retained, the calculated size of the Fund would have been of the order of SDR 50 billion. Furthermore, the gap of about 60 percent that had arisen between the actual size of the Fund and the calculated size of the Fund during the Ninth Review indicated that there might again be a need to re-examine the weighting of the formulas with a view to reducing that gap. Such a reweighting would not have any practical significance, because the total of members' calculated quotas gave only an indication of the relationship between the size of the Fund and the size of the world economy. The importance of the quota calculations was to show the relative positions of members, not absolute quota levels.

It should be noted that the weights used in the formulas to calculate quotas had been maintained unchanged primarily to ensure consistency, the Treasurer commented. Quota calculations did not become a fundamental part of quota reviews until 1969. In the period up to 1969, a more ad hoc approach was taken in examining the situation of individual groups of countries to determine whether individual increases in quotas were warranted. However, following the introduction of special drawing rights, the Board began to take a different approach toward quota increases for individual countries, in particular, that the quotas of members were increased mainly in the context of general reviews of quotas.

The Acting Chairman made the following concluding remarks:

> This has been a useful discussion of the technical issues relating to the working of the quota formulas and the preliminary quota calculations made for the Tenth General Review of Quotas. While these technical issues have important consequences for the broader policy-related issues as regards the conduct of the Tenth Review, these policy issues, as a number of Directors noted, were not on today's agenda. Let me nevertheless note that today's discussion revealed significant differences of view as to whether there should be a quota increase under the Tenth Review and what form it should take, or whether the Tenth review should be promptly concluded without any increase in quotas and work should begin on the Eleventh Review. Thus, we will need to come back to the work related to the Tenth General Review of Quotas, in light of the Board of Governors' Resolution, in which the Executive Board was asked to submit a report, together with appropriate proposals, to the Board of Governors not later than December 31, 1994.
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> A number of Directors noted that the quota calculations (EB/CQuota/94/1) were made on the basis of data that ended in 1990, which is an updating of the material by the normal period of five years since calculations were made in connection with the Ninth Review. In light of any substantial revision in the data through 1990, the staff could issue a revised set of quota calculations.
>
> A number of Directors noted that the quota calculations indicated a moderate growth in the world economy in the period 1985-90, and that the present size of the Fund in terms of the new

calculated quotas is of the order of 33 percent, compared with 28 percent at the beginning of the Ninth Review. The calculations also showed that, while the extent of disparities between actual and calculated quotas has diminished since the Ninth Review, a considerable number of countries have actual quotas that are very much out of line with their calculated quotas, and this provided an important indication that the restructuring of relative quota shares, which was begun in the Eighth Review, is far from complete.

As to the structure of the quota formulas, most Directors supported the principle that the quota formulas should reflect the different economic characteristics of members, and considered that the dual structure of the quota formulas that was introduced in the 1962-63 reflected these characteristics relatively well and should be maintained. To put it differently, a Bretton Woods-type formula, with a relatively large weight for GDP, should continue to be used, along with a formula or formulas that, like the derivative formulas, give greater weight to external trade and to the variability of external receipts, which were characteristic of many economies of the developing countries. This dual structure of the quota formulas is generally representative of most countries' economies.

Many Directors felt that the present quota formulas work reasonably well. In particular, they felt that the quota formulas should be changed only when there was a compelling need to do so. These Directors also noted that an important characteristic of the working of the quota formulas should be to provide a stable basis for adjusting individual quotas in the context of a general review. A number of Directors, however, felt that it would be appropriate to simplify and reduce the number of quota formulas. Any simplification should have a sound technical basis, such as, for example, to eliminate redundant information, as was done in 1982-83, or to avoid perverse relationships in the calculations, such as between calculated quotas and GDP. A number of Directors were in favor of a reduction in the number of quota formulas to two, along the lines suggested by the staff of using a linearized Bretton Woods formula in association with the M4 formula.

Several Directors pointed out that it would be useful to examine further the following issues.

Most Directors were not attracted to the possibility of using a purchasing power parity (PPP) index instead of valuing GDP by using market exchange rates, and cited the data shortcomings described in the staff paper and the considerable shift in shares in calculated quotas that such use of PPP-adjusted GDP would introduce in the calculations. Nor was there much support for the suggestion to use real effective exchange rates to convert GDP, in part because of the difficulty of selecting the appropriate base period. Several Directors supported the staff's recommendation to use an average of GDP over several years, with some preferring a three-year period and others a five-year period.

Some Directors commented on the issue of the valuation of gold in members' reserves and felt that the Fund should include gold at a market-related price for purposes of making quota calculations. Other Directors, however, noted the staff's conclusion that using a market-related price for gold valuation would make relatively little difference to the calculations in general.

With respect to need-based variables, most Directors commented on the long-term downward trend in the share of the non-oil developing countries as a group in the total of calculated quotas. Some Directors felt that there was an inherent bias in the existing quota formulas; they would, therefore, support the introduction of new variables in the quota formulas to counterbalance this bias. In particular, these Directors supported the introduction of either a poverty index or a variable representing external debt, or a variable that would indicate difficulty in achieving access to international capital markets. Other Directors, however, were firmly opposed to the introduction of such need-based variables in determining shares, particularly in light of the Fund's role as a monetary institution.

There was no strong support for including the relative financial importance of countries in the existing formulas. This matter is difficult to capture in the quota formulas, especially as it affects only a few major industrial countries and some relatively small developing countries that operate offshore financial markets.

Directors noted that the calculation of quotas for the successor states of the former Soviet Union--and other countries in similar situations--gave rise to problems that deserved particular attention. The staff would pursue work in this area, including, for example, the issue of measuring trade among the successor states.

Looking to the next steps, I would suggest that further work in connection with the Tenth Review be continued at the time of the Board's discussion of its work program, following the spring Interim Committee meeting. That would give Directors an opportunity to reflect on today's discussion.

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LEO VAN HOUTVEN
Secretary