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INTERNATIONAL MONETARY FUND

Committee of the Whole on Review of Quotas

Meeting 95/1

10:00 a.m., August 28, 1995

S. Fischer, Acting Chairman

Executive Directors	Alternate Executive Directors
	A. A. Al-Tuwaijri
M.-A. Autheman	
	B. Andersen, Temporary
L. E. Berrizbeitia	
	S. O'Connor, Temporary
B. S. Dlamini	
	J. Shields
K. P. Geethakrishnan	W. Hettiarachchi
J. E. Ismael	L. M. Cheong
	R. F. Cippa, Temporary
A. Kafka	
	J. Jonáš, Temporary
	H. A. Barro Chambrier
G. Lanciotti	N. Coumbis
	B. S. Newman
H. Mesaki	
	M. Daïri
C. Saito	
	B. Esdar
A. S. Shaalan	Y. Y. Mohammed
	A. V. Mozhin
E. L. Waterman	J.-H. Kang
	O. Havrylyshyn
Zhang M.	

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

Also Present

European II Department: A. K. Lahiri. External Relations Department: A. P. Kireyev. Legal Department: R. H. Munzberg, Deputy General Counsel. Policy Development and Review Department: T. Leddy, Deputy Director. Secretary's Department: A. Mountford, W. S. Tseng. Treasurer's Department: D. Williams, Treasurer; D. Gupta, Deputy Treasurer; G. Wittich, Deputy Treasurer; J. C. Berrigan, K. Christou, J. C. Corr, O. Roncesvalles, G. S. Tavlas. Office of the Managing Director: S. Sugisaki, Special Advisor. Advisors to Executive Directors: S. K. Fayyad, H. Golriz, J. Guzmán-Calafell, J. John, R. Kannan, J. C. Martinez Oliva, G. Mucibabici, K. Sundara. Assistants to Executive Directors: S. Al-Huseini, T. Berrihun, A. L. Coronel, D. Daco, A. Galicia, A. Guennewich, O. Himani, Huang X., P. Jilek, W. C. Keller, T. Lwin, M. Nemli, Ng C. S., J. Pesola, A. Ruocco, D. Saha, T. Sitorus, Song J., Y. Tahara, M. Yiu, E. Zamalloa, Zubir bin Abdullah.

1. ELEVENTH GENERAL REVIEW OF QUOTAS - PRELIMINARY QUOTA CALCULATIONS

The Executive Directors, meeting as a Committee of the Whole, considered a staff paper on preliminary quota calculations (EB/CQuota/95/1, 8/10/95).

Mr. Mozhin made the following statement:

The Eleventh General Review of Quotas has been carried forward by several years in response to recent developments in the international financial system and the need to reassess the role of the Fund and the adequacy of its resources in light of the challenges ahead. I am particularly pleased to note that, for the first time since the Russian Federation became a member of the Fund in 1992, separate quotas have been calculated for the Baltic states, Russia, and other countries of the former Soviet Union. Calculating these quotas has been, and, for some time will continue to be, a formidable task that requires a considerable element of judgment. I shall turn to this problem after commenting on some broader issues related to the current review of Fund quotas.

On several previous occasions, we have indicated our preference for a Fund quota increase as the most appropriate, transparent, and consistent way to strengthen the Fund's financial position in the face of present and future liquidity risks, and other uncertainties. In this regard, total calculated quotas, in addition to other, sometimes more important, factors and indicators, provide a useful measure of the overall growth of the world economy and have a considerable bearing on the appropriate size of the Fund.

Total calculated Fund quotas have been traditionally determined on the basis of the Bretton Woods formula. It has been used since 1962/63 to normalize the outcomes of calculations made using all other formulas. Such an approach was fully warranted at the time when calculated quotas of the majority of Fund members were based on this formula. However, I take it from Table 3 of the staff paper that this time around the Bretton Woods formula has been the basis for calculated quotas only in 66 cases out of the total of 175, compared with 73 out of 160 cases in the preliminary calculations for the Tenth Review. At this early stage of our work, it may be useful to take this broader picture into account while deciding which formula is most appropriate to determine the size of total calculated quotas. Perhaps, the staff could prepare a review of our options in this regard, including conceivably the introduction of a ratio to normalize the calculations based on the Bretton Woods formula itself.

On balance, I agree with the view that the quota formulas are working broadly as intended to reflect the relative economic

sizes of Fund members. I can also go along with the proposition not to introduce any new variables into the formulas at this time, with the understanding that ad hoc quota increases could be contemplated on a case-by-case basis, if the formulas and calculated quotas fail to provide reasonable guidance regarding a member's relative economic position vis-à-vis the rest of the membership.

Nevertheless, I have sympathy for the staff's view that the set of five formulas could be reduced or simplified. We could, probably, keep only the Bretton Woods formula, which is nonlinear, plus the average of M4 and M7 formulas, which are linear, for calculations. Two additional nonlinear formulas in the so-called Set II, namely Scheme III and Scheme IV formulas, frequently yield perverse results in the calculations. Here is a good example of such misleading results. The staff used a special SDR/ruble exchange rate to convert Russia's 1993 GDP into SDRs. Should the market exchange rate have been used instead, the figure of Russia's GDP would have been lower by more than a hundred billion SDRs but the calculated quota would have been higher by some two hundred and fifty million SDRs! The opposite direction of GDP and calculated quota movements in this case, as in many other instances, is explained by the nonlinear nature of the two formulas and the use of a multiplicative factor which includes the GDP figure as a denominator. Therefore, I support excluding these two formulas from the quota calculation, and I hope that this proposal could attract support from the majority of Committee members.

We have previously endorsed another sensible idea--to introduce in the calculations averaging of the GDP variable over a five-year period, as is presently done with regard to external account data. As there is considerable correlation between the GDP and trade variables in the countries with open economies, I do not see why cyclical peaks and troughs should be allowed to affect the former while we attempt to smooth the fluctuations in the latter.

The staff's note of caution--that the data and calculations should at this stage be regarded as preliminary--is well taken. Particularly unreliable may prove to be the data for a large group of economies in transition as the present quota calculations cover the period when their economies were still centrally planned and were based on multilateral trading arrangements that involved non-market prices and exchange rates. The highest margin of error and, perhaps, controversy may be expected to arise from the calculation of quotas for the Baltic states, Russia, and other countries of the former Soviet Union. Of the five variables that are used in the quota formulas, only the data on reserves, which play the least important role in determining the size of calculated quotas, can be regarded as fairly reliable. The GDP figures for 1993 are of questionable

quality, as the process of price liberalization, accompanied by high inflation and rapid exchange rate depreciation continued through the end of that year. Going back to my earlier example, it may be interesting to note that if the conversion of Russian 1993 GDP into SDRs had been made at the then current market exchange rate, we would have observed a more than twofold economic growth in Russia in SDR terms now vis-à-vis 1993, while it is widely believed that the real GDP in Russia continued to fall both in 1994 and in the first half of this year.

External trade data is another problem, as the five-year period ended in 1993 includes the three years before the Baltic states, Russia, and the other countries of the former Soviet Union gained their sovereignty. In the absence of reliable statistical data, estimating the inter-republican trade during those years inevitably becomes a very tricky exercise, given the huge price distortions that existed among the various sectors of the economy of the former Soviet Union. My most serious concern, however, relates to the data on variability of current receipts calculated over the period of 13 years. This period includes about ten years in which there was a system of managed trade between the former Soviet Union and its major trading partners within the framework of the multilateral trade and payments mechanism of the Council for Mutual Economic Assistance (CMEA). Strict planning of external transactions and mandatory use of a five-year moving average price in the CMEA trade contracts, including energy exports by the former Soviet Union to the Eastern and Central European countries, have resulted in a very low variability of official current receipts of the former Soviet Union even at a time of price shocks in the international oil, gold and other commodity markets in the 1970s and 1980s. Although I am pleased to note that there has been some progress in the staff's assessment of the variability of current receipts in the Baltic states, Russia, and other countries of former Soviet Union, the scope of trade disruptions among these countries that took place in 1991-1993 is inappropriately mitigated in quota calculations by the use of a ten-year period of practically zero variability of current receipts.

Of course, my authorities are prepared to go an extra mile to assist the staff in improving the quality and reliability of economic data relating to the Baltic states, Russia, and other countries of the former Soviet Union. However, realistically, our mutual efforts in this area may have reached their limits, given the methodological complexity of the issues involved. As the true economic size of these members will probably be better assessed only in a few years, when the systemic transformation is more mature, it could be more prudent now to avoid big judgmental errors in interpreting the Soviet period data. The latter could safely be excluded from the quota calculations for the Baltic states, Russia, and other countries of the former

Soviet Union. The period of calculation of all variables could, for example, be shortened to five years, while the missing data could be replaced with reasonable estimates by the staff to be made on the basis of the most recent economic data. I will seek Directors' support for such an approach. Perhaps, additional simulations by the staff along these lines could facilitate consideration of this matter by the Committee of the Whole.

Finally, I look forward to further consideration of the general quota increase and remain flexible with respect to its overall size. Given the unusually wide margin of error in quota calculations for the Baltic states, Russia, and other countries of the former Soviet Union and other economies in transition, I would prefer to limit an overall size of selective increases in Fund quotas to a minimum and stand ready to consider member countries' requests for ad hoc quota increases.

Mr. Clark made the following statement:

The preliminary calculations presented in the staff paper provide a reasonable basis for consideration of many of the issues bearing on an increase in quotas. I note the concerns expressed by the staff about the considerable amount of estimation of data which has been necessary on this occasion, affecting almost one third of the information used. On the one hand, this underlines the importance of strengthening the Fund's database in line with the consideration which we are giving to the issues of data provision and statistical standards. On the other hand, I note that calculations are unlikely to be affected to any great extent by revisions as we move from estimation to official data over time. My understanding of the position is that many data from so-called estimated sources are in fact the data that will be published in International Financial Statistics, and therefore, could be considered official. I wonder whether the staff could comment further on this issue. We would support the incorporation of additional official data at a later stage in the quota review.

As I have indicated on previous occasions, the formulas used to calculate quotas are working broadly as intended, providing reasonable indicators of the relative economic position of members. On consideration of this latest document I have no reason to depart from this position.

The staff paper for the current discussion confirms our initial expectations with respect to the disparity between actual and calculated quotas. The overall extent of disparity between calculated and actual quotas has increased somewhat since 1990 data calculations and the number of members with calculated quotas substantially out of line--by 50 percent or more, as measured by the staff, though this is an arbitrary cutoff point - is still relatively small at 16. In general, we

hold the view that actual quotas should, to the extent possible, reflect the relative position of economies in the world economy. Both the size and distribution of divergences between actual and calculated quotas suggest a continuing need to work to reduce such disparities in the Eleventh Review. The review is at an early stage, and there will be ample time to consider the best means of narrowing the disparities. A significant selective increase would appear to be warranted to address this question generally. In addition, there is always scope for ad hoc adjustments to deal with specific problems, though not, I would suggest, for dealing with any large number of cases lest our work become unmanageable and impossible to bring to a successful close.

The staff used an average of GDP over a five-year period--the longest period suggested by Directors, many of whom wanted an averaging period of three years or less--to address the impact of abrupt changes in relative GDP positions stemming from volatile movements in the exchange rate against the SDR and from different relative positions in the cycle. The results of the exercise produce what the staff describe as a marginal effect on calculated quotas. I suspect this is not what those in favor of averaging had hoped to achieve. In light of the fact that averaging takes from the up-to-datedness of our calculations and does little to address the perceived anomalies it was aimed at, I think we should not pursue averaging further.

The use of an ad hoc approach may well be what is required to deal with the issue of GDP anomalies, including conversion of GDP into SDRs. I note that the staff has identified what look like anomalies in this area for a small group of countries. These will have to be further examined and perhaps dealt with as exceptions. If so, my preference would be to apply certain methodologies to the group as a whole to the extent possible, rather than taking those cases up on an entirely ad hoc basis. In any event, a case would have to be developed in greater depth around any anomalies that are being highlighted, with a view to ensuring, inter alia, a genuine basis for exceptional status and an equitable solution which does not affect negatively other members.

The rate of growth of quota formula variables has indeed slowed down. One can draw some information from quota calculations about the overall growth of the world economy and some will draw from this an inference about the appropriate size for the overall increase in Fund quotas which should be foreseen under the Eleventh Review. To get back to the size of the Fund resulting from the Eighth Review as measured in terms of calculated quotas would need an overall increase of more than 55 percent, on this narrow basis. However, I agree fully with the staff that there are many other factors which have an important bearing on the appropriate size of the Fund; I mention

the Fund's role in the world economy, its liquidity position, the potential demand for its resources over the medium term, and the evolution of market possibilities for financing of members. All of these will have to be woven into consideration of the size of an appropriate overall increase in Fund quotas, and I am not prepared for the current discussion to take a position on the size of the overall increase in quotas. I will venture to say that the role which we see for the Fund, and our perception of the market context in which it will have to operate, will probably be as important as or more so than any inference which might be drawn from the calculated total quotas in the paper before us.

As I indicated at the previous discussion, I look forward to further discussions on the issues related to basic votes in the Fund. These issues are of special importance for the members with the smallest quotas.

Mr. Newman made the following statement:

The current discussion represents a further step in the long march that constitutes the Eleventh Review. The staff paper provides useful background information but cannot be determining regarding the key issues in the quota review, particularly the size and distribution of any quota increase. Indeed, at this stage of the review, the calculated quotas must be viewed with caution.

During the Tenth Review, Directors generally concluded that the existing quota formulas were working as intended and this conclusion was confirmed at our recent meeting on the evolution of the quota shares of developing countries. However, any formula is only as good as the data that is inputted. The staff paper notes that a substantial portion of the data used in the quota calculations is preliminary or estimated. I appreciate management's interest in providing Directors with a first look at the quota calculations at an early date, but I am concerned that apparently up to half the data are estimated or do not meet the standards necessary for IFS publication. In some instances, substantial gaps exist, including current account and reserve data.

We welcome the use of actual data for many of the transforming economies rather than the extrapolations developed for the initial quota calculations, but serious problems remain to be resolved, not least of which is the appropriate exchange rate. Finally, the database overlaps considerably with the data used in the Tenth Review, with only three years of new information rather than the full five years normally available in quota reviews. It will be important to have complete, accurate and timely data if the calculated quotas are to provide a useful guide for our discussions, especially as the

calculations relate to the highly sensitive issue of quota shares.

The rate of growth of calculated quotas for the Eleventh Review has clearly slowed, with total calculated quotas only about 19 percent higher than for the Tenth Review and 60 percent greater than the Ninth Review. In part this reflects slower growth, reduced inflation, and less volatility in the world economy. However, it also reflects the shorter period--three years--of new data. The total calculated quotas would undoubtedly be higher had the full five years of new data normally used in quota reviews been available, although it is unlikely that the increase would be as large as in previous reviews.

This said, however, it is not clear that total calculated quotas or the ratio of actual quotas to calculated quotas tells us much about the appropriate overall size of the Fund. The size of the world economy seems to have little direct bearing on either the demand for The Fund financing or the supply of loanable resources available to the Fund. This is perhaps best revealed in the context of the Tenth Review when calculated quotas grew by about one third, but the Fund's liquidity ratio was at an all-time high during much of the period and was still at 168 percent when the review concluded. As of August 17, 1995, the Fund's liquidity ratio exceeded 106 percent, well above the level which some have argued in the past would indicate the need for additional quota resources. A judgment regarding the Fund's future financing needs thus will depend less on the overall size of the world economy and more on assessments of the nature and magnitude of the prospective supply/demand balance for Fund resources, but these are issues for another day.

The differences between actual and calculated quotas have traditionally been more useful in assessing whether individual members have quota shares that are "out of line" with their relative position in the world economy. The discrepancies between calculated and actual quota shares, however, must be treated with the same caution that applies in using calculated quotas as a basis for determining the overall size of the Fund. In reality, there is no definitive standard for determining a country's relative position in the world economy. Thus, the formulas present a composite that seeks to provide a compromise among competing interests by, for example, treating GDP, trade and variability as separate variables with different weights even though they are correlated, and by using alternative formulas which give higher weights to variables of particular concern to developing countries. In this regard, however, the biggest shortfall in the formulas may well be the absence of explicit financial variables, except for reserves, given the Fund's role as a financial institution and the growing

importance of capital markets and capital flows in balance of payments financing issues.

This said, the staff notes correctly that the discrepancies between calculated and actual quota shares have been narrowed for broad groups of countries as a result of recent quota reviews but that some members are still significantly out of line. What is less clear, however, is the seriousness of the remaining problem and therefore how much of an overall increase in quotas should be devoted to a redistribution of quota shares? This is especially important since the redistribution of quota shares, and thus voting power, is a zero-sum game and thus highly sensitive politically.

The staff, for example, notes that 16 members have calculated quota shares that exceed their actual quota shares by more than 50 percent. The 50 percent test is similar to the cutoff used in previous quota reviews. However, it does not provide a meaningful guide as to whether these countries are seriously disadvantaged compared to other members, especially as the discrepancy between calculated and actual quotas are both pervasive and substantial for many countries.

A more traditional measure of out-of-lineness would be based on standard statistical tests of deviations from the average. If the usual two standard deviations are utilized to measure serious cases of out-of-lineness, only five or six countries have calculated quota shares that exceed significantly their actual shares, accounting for about 7 percent of quotas. In some of these cases, the discrepancy reflects decisions by the member to forego some of the previous quota increases to which they were entitled under earlier reviews. This measure, however, also has its drawbacks as standard statistical tests assume a normal distribution in the sample, which does not exist in this case. More sophisticated statistical tests may be required. I wonder whether the staff could comment on this point.

Traditionally, share adjustments have been achieved by distributing a portion of the overall quota increase selectively; either to all members based on their shares in calculated quotas or to only those members whose shares in calculated quotas significantly exceed their shares in actual quotas. The former approach provides for a slower redistribution than the latter and spreads the effects over a wider range of countries. An alternative would, of course, be to redistribute only among those most out of line in both directions. A third possibility would be to give ad hoc increases to those most out of line, with the offsetting share declines spread throughout the rest of the membership. At this stage, it would be premature to consider whether and how a redistribution of shares might be achieved until we have a

better sense of the magnitude and nature of the problem. However, we should not presume that the methods of the past remain appropriate in the current circumstances.

In particular, we need to take account of the multiplicity of roles that quotas play in the Fund, including as a source of financing, the basis for access to The Fund resources and voting power. Given the steps taken to expand access to a large multiple of quotas, we believe that any redistribution of quota shares should give priority to strengthening the Fund's financial position. Moreover, as the actual quota shares and thus voting power of a large number of members already exceed calculated shares, in many cases by a substantial margin, we need to consider carefully proposals to amend the Articles of Agreement to increase the number of basic votes of countries.

We also remain skeptical that the exchange rate conversion problem is of a size or seriousness to warrant a change in the way the quota formulas are applied. The exchange rate translation problem affects all members to some degree, not just developing countries that may be fast growers. As the staff noted, many of the developing countries concerned have actual quota shares that exceed their shares in calculated quotas and, in some cases, the real exchange rate depreciations may have reflected governmental policies. Moreover, most developing countries rely primarily on the quota formulas that give greater weight to variables that are already averaged over a longer period and thus have the exchange rate translation smoothed. Furthermore, it is not clear why the problem should be addressed by averaging GDP over a five-year period rather than simply averaging the exchange rate used to convert GDP data into SDR equivalents. Finally, while the effects of averaging GDP may be small in the aggregate, it can be substantial in individual cases. For these reasons, we would prefer to continue to utilize the most recent available GDP data, which at least has the virtue of being a timely reflection of members' relative sizes in the world economy.

Mr. Shaalan made the following statement:

Quota calculations in the context of general quota reviews essentially serve two basic purposes: they provide an indicator of the relative positions of individual members in the world economy, and they provide an indicator of the overall size of the Fund relative to that of the world economy. These calculations are thus a key factor in coming to a view on the method of distributing any overall increase in the Fund's size that may be agreed, and they also have a bearing on whether an overall quota increase is warranted. These issues, namely, the size of the overall increase and the method of distributing it, are interrelated. Therefore, while practical considerations may preclude a simultaneous in-depth consideration of the two

issues, it is hoped that the forthcoming paper on distribution will include simulations of several combinations of size and distribution techniques.

Pending a careful consideration on the part of our authorities of the planned staff work on the size and distribution issues, let me offer the following remarks on some conclusions that could be tentatively drawn on the basis of the calculations currently under consideration.

The calculations indicate that there has been little change since the Tenth Review in the disparities between actual and calculated quota shares. Thus, the overall reduction in these disparities that was achieved in the context of the Eighth and Ninth Reviews remains largely unchanged. Accordingly, and since the quota structure was considered to be broadly appropriate in the context of the Tenth Review, we do not see a compelling reason for seeking to achieve a significant realignment of quota shares in the context of the current review. It is indeed difficult to see how any realignment would be feasible without leading to a significant reduction in the quota share of the developing countries as a group. With the calculated quota share of these countries, as a group, considerably below their actual quota shares, any generalized selective increase in quotas would lead to a sizable reduction in the group's actual share. Even if a selective component of an overall increase were to be distributed only to the 16 countries whose calculated shares exceed their actual shares by at least a factor of 1.5, the shift in the aggregate shares could be quite significant, depending, inter alia, on the relative size of the selective component. This is so because more than 80 percent of the calculated quota of this group is accounted for by the quotas of industrial countries.

The calculations also indicate that an overall quota increase of about 60 percent would be needed if the size of the Fund is to be restored to its level of the mid-1980s in terms of the size of the world economy. This is, of course, but one of several indicators and factors that bear importantly on the judgment to be made regarding the appropriate size of the Fund. These include the increased exposure to external shocks in the new environment of unprecedented growth of capital movements and high global economic and financial integration, the evolution of the Fund's liquidity position, and the possible demand for Fund resources over the medium term. We look forward to the forthcoming consideration of these issues. As to the role of the Fund, which is key among the factors bearing on the size of an overall increase in quotas, let me say that we already have had several discussions on the subject, including one that was held earlier this month. I would like to recall in passing that, in the context of those discussions, we have maintained that in the changed global economic and financial environment,

the Fund must continue to stand ready to provide financing in support of appropriate adjustment policies to facilitate the adjustment process and contain its undue adverse effects.

Finally, we are satisfied that the preliminary calculations presented in the paper currently under consideration provide a reasonable basis for initiating consideration of the issues bearing on an increase in quotas. However, given the large extent of reliance on estimated data, we hope it will be possible to have the data estimates firmed up in the not too distant future to permit a timely revision of the calculations.

Mr. Kafka made the following statement:

The paper presented by the staff provides clear evidence that the Fund is small in relation to the world economy. As reflected in the newly calculated quotas, an approximate doubling of Fund quotas is needed to restore the actual size of the Fund to the size, in relation to calculated quotas, of the Seventh Review. We think that the preliminary calculations are useful as a guide to conclude that an overall increase in quotas under the Eleventh Review is a key priority if the Fund is to perform efficiently its role in the world economy. However, the significant amount of estimated data--almost one third of the data used in making quota calculations--creates a dilemma: it would make it advisable to wait for official data to become available before considering any quota adjustment, yet we would want to proceed to the increase as quickly as possible. If Committee members agree that the overall increase in quotas should be distributed to all members on an equiproportional basis, there would be no need to wait for official data.

Quota formulas, as currently used, are not perfect. But there is no methodology to measure with total accuracy the relative economic size, etc., of member countries. For that reason, through the years, the Fund has introduced adjustments in some cases to correct possible misalignments. As this chair has indicated on previous occasions, we consider that the Fund should stick with the use of the formulas currently used to calculate quotas, without prejudice to any possible exceptions.

We favor, nevertheless, the use of a five-year average of GDP on the calculated quotas. In doing so, we consider that it will be helpful to smooth the volatility of data, and that it would reflect in a better way the performance of the economy over the medium run. In addition, it will add a symmetry element to the process by maintaining harmony with the period used at present for the data for external trade in goods and services.

We are concerned about the problems that arise from the combination of above-average real GDP growth of members, along with a significant fall in their share of calculated quotas over a prolonged period. In this connection, we feel that the staff should further study the way to deal with the issue of data conversion into nominal SDR terms.

Regarding the size of individual increases in quotas under the Eleventh Review, we support the adoption of an equiproportional adjustment, of course, with some evident exceptions. It will offer the advantage of maintaining our current relative economic positions, without incurring in long discussions, that will not necessarily bring about very different results.

Mr. Mesaki made the following statement:

I would like to make some brief comments on the points raised in the staff paper. The illustrative quota calculations presented in the staff paper are a reasonable basis upon which to consider the issues bearing on an increase in Fund quotas. There is already a consensus that the current quota formulas have been working as intended. In addition, I attach the utmost importance to making sure that quotas reflect the current relative economic positions of members in the world economy. Toward this end, the benefits to be derived from the use of the most up-to-date data outweigh the problems related to accuracy.

With respect to the proposed quota calculations using the GDP data that were averaged over the five-year period through 1993, I believe that serious consideration should be given to the proposed approach, with a view to smoothing the short-term effect of fluctuations in exchange rates on quota calculation.

Regarding the method of distribution for the increase in quotas, I would favor maximizing the selective element in order to bring members' shares in actual quotas closer to their shares in calculated quotas. This view stems from the important principle that members' quota shares should reflect their relative economic position in the world economy.

In addition, as this chair has emphasized in the past, there are some members with significant discrepancies between calculated quota shares and actual quota shares and most of these discrepancies are increasing. The staff says that these 16 countries account for 15.7 percent of total present quotas and that the number of such members has remained relatively small. I would like to note in this connection that in terms of calculated quota share, these 16 countries account for as much as 28.2 percent. Immediate attention should be paid to resolving this issue from the standpoint of the basic principle of equity. The "selective" approach goes a long way toward

resolving this issue in a very equitable fashion. It might be advisable to supplement this "selective" approach by granting an ad hoc quota adjustment for a limited number of members with substantial quota discrepancies if these differences continue to be substantial even after corrective efforts based on the calculated quotas, and if the members concerned have a strong desire to correct them.

I do not support the alternative approach, which is intended to adjust quotas primarily on an equiproportional basis with ad hoc quota adjustments. This approach would raise an extremely difficult issue concerning the choice of members for which ad hoc quota increases are granted and the amount of the ad hoc quota increase for each qualified member. The adoption of an approach that would rest primarily on an equiproportional distribution of the quota increase, while allowing for ad hoc adjustments in the quotas of a few countries would lead to never-ending discussions and new inequities between the members that were granted such selective increases and those that were not.

With regard to the last issue, I agree that the increase in the total of calculated quotas provides a reasonable indicator of the need for an overall increase in quotas under the Eleventh Review. However, it may be premature to mention the total size of the quota increase under the Eleventh Review at this stage, because the actual total size of the quota increase should be considered after careful examination of the Fund's liquidity and the role of the Fund in the future.

Mr. Berrizbeitia made the following statement:

I would first like to congratulate the staff for a well written paper which presents the relatively complex subject matter in a very readable and understandable manner.

This chair's general position as regards the Eleventh General Review of Quotas was established during our prior discussion on the evolution of shares in Fund quotas of developing countries and I would like to summarize and reiterate that position as follows:

We support a sizeable and early increase in quotas, of a magnitude that will be sufficient for the Fund to continue playing a significant role in the international monetary system, without unduly relying on heavy borrowing of resources. Furthermore, in our opinion quota increases should take place on a predominantly equiproportional basis, with appropriate ad hoc increases for those countries whose increases in actual shares remain substantially below the increases in their calculated shares over the years. Also, we consider that increasing the number of basic votes is not appropriate, since it would

probably generate further deviations of actual quota shares from the relative economic position of members.

Additionally, during our discussions on Capital Account Convertibility we expressed the view that the increased globalization of capital markets argues in favor of a larger quota increase than would otherwise be the case. In this respect, while we recognize that such globalization in theory should allow for a decrease in the actual need for Fund financing, in fact the potential need for financing increases, as was clearly demonstrated by the Mexican crisis and its collateral effects. Therefore, although it is still early to pass judgment on the definitive size of the quota increase that will be required, we have supported a substantial increase in Quotas, possibly their doubling, as has been suggested by the Managing Director. This would also contribute to redressing the secular reduction in the size of the Fund vis a vis the world economy, which has been noted in many of our discussions.

As regards the quota formulas, this chair considers that the use of a five-year average for GDP is desirable, in order to avoid distortions which could be caused by the use of data for a single year. For similar reasons, it would also be desirable to consider extending the 12 month period, during which official holdings of reserves are currently averaged, perhaps to 36 months. In general, averaging of data seems to be the preferable route, even though the current exercise does not produce substantially different results using either method.

This being my first exposure to the functioning of the formulas, I note that they are of a rather arcane nature, and that their economic logic is, to say the least, obscure. I suppose this is a reflection of the role that historical and political criteria have inevitably played, and will continue to play, in the evolution of the relative power structure in the Fund.

In this context, although I recognize that the formulas have been useful in adjusting actual Quotas overtime, so that these better approximate the relative economic position of member countries, and while not proposing a change in the Quota formulas for this Review, other than the data modifications I have suggested, I would like to underline some of its obvious deficiencies through an example.

The lack of economic logic of the formulas is made evident by a simple comparison derived from Table 7: the fact that the formulas result in a larger absolute quota for Singapore than for Brazil. These results occur even though Brazil's GDP is approximately 10 times larger than Singapore's GDP, and its population approximately 50 times larger. Clearly, this is not a logical result. Apparently, it reflects the magnitude of

Singapore's current account, which seems to have a very large impact on the quota formulas and calculations.

This was meant as an example, nothing more. However, I would be interested in hearing the staff's technical views on the desirability of changing them, or devising new ones, which would make more economic sense and provide a better reflection of the relative economic position of members. I would also like to hear their technical views on what new variables, or variable measurements, they would include in such formulas. In my opinion, if such alternative formulas were to be devised, they could provide an useful reference for future reviews, as well as for eventual ad hoc adjustments which may be required.

As regards the issue of data quality at this early stage of our discussions on the Eleventh Quota Review, I would like to associate myself with the ideas expressed by Mr. Clark in his statement.

Turning to another issue raised in the staff summary, divergences between members' actual shares and calculated quotas suggest that some differentiation in the size of individual increases may be justified. In particular, as was reflected in the summing up of our discussion on the Evolution of the Shares in Fund Quotas of Developing Countries, this chair supports the maximization of an equiproportional increase, combined with ad hoc quota increases in specific cases of members whose actual shares have been substantially below their calculated shares over a period of years. Such adjustments should also take qualitative considerations into account, when appropriate.

Finally, while we are aware that possible decisions related to increasing the General Agreements to Borrow, or some sort of parallel mechanism, may be adopted in the future, we feel that such decisions should not have a bearing on the required size of the general quota increase to be decided upon during the Eleventh General Review.

Mr. Ismael recalled that Singapore had not taken up the full quota increases allocated to it under the Seventh and Eighth Reviews. That fact had clearly contributed to the present large disparity between its shares in actual and calculated quotas.

Mr. Esdar made the following statement:

We very much welcome the timely reaction of management and the staff to the request of the IC to carry forward its work on the Eleventh General Review of Quotas. Given the expected decline of the Fund's liquidity we would favor to conclude this review as soon as possible and to agree on a quota adjustment necessary to fulfill the Fund's mandate.

The discussion today is one step further on the--and here I refer to Mr. Newman's statement--hopefully not too long march into this direction. The staff has again produced a well written and well focussed paper on this complex and difficult issue. I am in broad agreement with of most of the staff findings. I would like to touch on four issues, the working of the quota formula, the preliminary quota calculations, the disparities between actual and calculated quotas and the possible size of a quota increase.

Let me begin with the quota formula. During the discussion of the 10th review of quotas in March 1994, there was broad agreement that the quota formula provides a comprehensive measure of the relative economic size and of the change in the relative economic position of members in the long run. This view was reiterated by the majority of the Board one month ago. Therefore, we see no benefit in reopening these discussions and again considering pros and cons of introducing new variables in the quota formulas. I doubt whether there would be any fundamental new findings but it would certainly slow down the review and postpone a potential increase. Our position remains unchanged. We do not see any need for new variables and especially reject the introduction of those variables, which are irrelevant for a monetary institution like the earlier discussed poverty or population indexes.

Regarding the preliminary quota calculations presented by the staff, I would like to briefly touch on existing data problems, the treatment of data of so-called successor states and the anomalous cases.

Concerning the data problem, I regret, of course, that the calculations had to be based on insufficient data for a huge number of countries. However, there seem to be no indications that the calculations are considerably skewed. Moreover, the data problem appears to be a rather temporary problem which could be resolved in the course of this review. This notwithstanding, my concerns are more of a general nature. In several discussions this Board has postulated the need for a timely data provision as an obligation under the Articles in order to strengthen the surveillance role of the Fund. Therefore, I would like to urge the countries concerned to improve their statistics and to provide the Fund with necessary information.

Concerning the quota calculation for the successor states to the former Soviet Union, the former Czechoslovakia and the former Yugoslavia, I support the procedure proposed by the staff to operate with a constant real exchange rate for the period from 1990 to 1993. This is a reasonable and pragmatic approach, to use market exchange rates for 1991 to 1993 would result in undue distortions of the relative size of these member

countries. With regard to Mr. Mozhin's proposal to shorten the calculation period of all variables on five years for the former Soviet Union states I look forward to the staff's reaction.

Concerning the so-called anomalous cases of countries, whose above average growth is not adequately reflected in their calculated quota due to changes in real exchange rates, let me recall that these distortions probably disappear in the long run. It is noteworthy, that each of the countries concerned has an actual quota share that is larger--in some case by a considerable margin--than its corresponding share in calculated quota. Therefore, it cannot be argued that these countries are being discriminated against. We see no need for a correction of the formula and generally would caution against any fine tuning or introducing exceptional clauses into the already quite complicated quota calculation. In this regard let me add that I do not support Mr. Clark's proposal to take up the issue of basic voting rights. We have discussed this issue repeatedly. We do not see any need to reopen this again.

A careful examination of the tables prepared by the staff demonstrates, that the main problems of underrepresentation are not related to the quota formulas but caused by increasing disparities between actual and calculated quota. As noted by the staff, the quota of 16 members are seriously out of line, with a actual quota deviating from the calculated quota by more than 50 percent. Using a 30 percent deviation as a benchmark, the quotas of about 130 members are out of line. It should also be noted, that some members with currencies in the operational budget are seriously underrepresented with their actual quota. This underrepresentation has substantial effects on the Fund's financial position, which should also be considered when we discuss the question whether and to which extent a selective adjustment is required. I therefore, I should like to support the finding of the staff, that not only the size but also the distribution of the discrepancies requires a correction under the Eleventh Quota Review. With regard to the use of ad hoc adjustments as an alternative, I share the reservations expressed by Mr. Mesaki.

Turning now to the size of the quota increase. Regarding the overall size of the Fund, the relevant question is not to define a fixed relation of the Fund's size to the world economy, but whether the size of the Funds is adequately fulfilling its mandate within the framework of a monetary institution. Given the decrease of the liquidity ratio and the increase of the membership there seems to be good arguments to justify an quota increase. We are looking forward for a more detailed study in order to define the future financial need and to determine the extent of the necessary quota increase. Without anticipating these discussion, we are not convinced, however, that the globalization of the financial markets in general provide a

justification for a larger financing need. This chair has made this point before. The efficiency of the international markets, which basically satisfies all economically justified demand for capital, argue rather for a decreasing need for public financing. To refer to the example of Mexico insofar is misleading as circumstances, reactions and the access in this case was exceptional and cannot be regarded as a precedent.

This being said, my authorities have always stressed the importance of providing the Fund with adequate resources to fulfill its mandate.

Hence, a well and carefully founded proposal for a quota increase will certainly find our support.

Mr. Waterman made the following statement:

I get the feeling that this is going to be a drawn out and possibly tedious exercise. In wading through the staff paper and the illustrative quota calculations, I was reminded of that saying that an economist is a person who is good with numbers but has not the personality to be a cost accountant.

I accept that the preliminary quota calculations presented in the paper provide a reasonable basis for discussing the issues. Nevertheless, countries which have lagged behind in their data provision to the Fund need to accelerate their efforts to provide more timely data. Meanwhile, the Committee should proceed on the basis of the staff's estimates, but with the understanding that appropriate revisions in the quota calculations will be made later based on official figures, particularly if substantial changes are implied.

Differentiation in the size of individual increases in quotas will be necessary to reduce the significant divergence between their calculated and actual quota shares. In this context, the restricted equiproportional increase, combined with an ad hoc quota increase for a small group of countries, would seem to be appropriate. Ad hoc increases need to be based on a change in a country's importance, that is, of a more permanent nature. I accept the staff's argument that a reasonable benchmark for an ad hoc increase is where calculated quotas are at least 50 percent greater than actual quota shares; that is, a 50 percent differential seems an appropriate basis for deciding whether shares are significantly out of line or not. By the same token, and in the interest of being objective and maybe a little provocative, where a country's actual quota share is more than double its calculated quota share, it is reasonable to claim that there is also a significant divergence. The number of members that have quota shares that are substantially out of line is sizable. There are, as the paper notes, 16 countries whose share is more than 50 percent below what it should be

based on calculated quotas. But on the present--admittedly preliminary--figuring, there are around 60 countries whose actual quota share is more than double the calculated share. These two groups combined account for roughly the same proportion of the present quotas for members. The idea might be somewhat radical for some, but one approach would be to have an ad hoc adjustment for the group of 16 countries combined with a restricted equiproportional increase, excluding those countries whose shares in actual quotas are, say, more than double their shares in calculated quotas. Such an approach would have the capacity to dramatically reduce divergences between actual and calculated shares.

On the possible overall size of the quota increase, previous speakers have made some good points, particularly with respect to the need to examine the Fund's liquidity ratio, the potential demands on Fund resources, and members' growing access to private capital markets. In reviewing Fund quotas, it will be important to avoid taking an approach that is overly mechanical. There is a whole range of factors that need to be considered, and I would also include here progress on the establishment of an emergency financing mechanism supported by an expanded GAB, the extent to which we are prepared to use the exceptional circumstances clause, and whether we have an SDR allocation of one form or another, and so on. So, it seems to me that it will be some time before we can take a decision on this.

Mr. Cippa made the following statement:

The illustrative quota calculations currently under consideration provide a good basis for the preparation of the issues that will be discussed during the Eleventh Review. We are confident that, notwithstanding the substantial use of staff estimates in performing this preliminary update of quota calculations, affecting almost one-third of the information, the main developments since the preview review have been adequately captured.

The staff analysis confirms in our view that the present quota formulas continue to do a good job in determining the relative positions of the individual Fund members in the world economy. In this context, we welcome the fact that individual quota calculations are now available for the Baltic countries, Russia, and the other countries of the former Soviet Union. The increases in calculated quotas for most of the countries of the former Soviet Union compared with their quotas under the Tenth Review are substantially above the average increase for the membership as a whole, which confirms the views stated by this chair on various occasions that quotas for these countries are currently too low. It is clear that the proper position of the Baltic states, Russia, and other countries of the former Soviet

Union in the world economy will be correctly and better assessed only in a few years, when all the data series for the relevant calculation will be available. In this respect, Mr. Mozhin's suggestion aimed at eliminating judgmental errors is interesting. Our position with respect to this issue remains open, and we look forward to comments from the staff. As a general consideration, however, we are somewhat reluctant to endorse yet another change in the methodology of calculating quotas to solve a problem which will soon disappear.

With respect to the issue of conversion of GDP into SDRs, although the use of the averaging procedure does somewhat smooth the volatility of the GDP data, it does not appear to solve the problem of large swings in real exchange rates. Given the relatively small positive impact on the calculated quotas of the most affected members, we conclude that this issue will have to be pursued on a case-by-case basis in the context of the discussions on possible realignments of quota shares.

As regards the issue of discrepancies between actual and calculated quota shares of Fund members, it is striking to see how this difference has further increased since the last review. Because of the importance of quotas in determining a member's provision of general resources and its access to Fund resources, we remain convinced that it is in the long-run interest of all members to bring actual quotas closer in line with the calculated quotas. In this context, we should pay special attention to emerging markets with strong balance of payments positions, which have ratios of calculated to actual quotas of 2 or even higher.

Although we support a differentiation of individual quota increases with the aim at realigning quota shares according to the relative economic positions of the members, we are fully aware of the necessity to also take into account the effects such adjustments would have on the overall quota structure. Since the share of calculated quotas of industrial countries has increased by more than 6 percentage points since the Ninth Review, a realignment of actual quota shares could entail a significant reduction of the quota share of the developing countries as a group.

However, before turning to the question of selective quota increases, the more fundamental issue regarding the size of the overall quota increase should be discussed. We agree that the size of the Fund should be kept in some reasonable relationship with the growth of the world economy. In this respect, the increase in the total of calculated quotas since the Ninth Review can be seen as reflecting the growth and the integration of the world economy, and therefore considered as a useful indicator of the need for an overall augmentation of quotas under the Eleventh Review. However, other factors must be taken

into careful consideration in this exercise and any suggestions for a precise increase in quotas would be premature at the present stage. In particular, the future size of the Fund must depend on a detailed assessment of the nature and magnitude of the expected demand and supply of its resources.

Mr. Saito made the following statement:

We appreciate the staff's effort in gathering the data for these preliminary calculations and regret the fact that a large amount of it had to be estimated. We wonder, however, if including one more year in the database would make the percentage of estimated data much bigger. If this were not the case, I see merits in including 1994 since this would help to reflect the relative economic situation of member countries using the most recent data available. The introduction of a five-year average for GDP instead of the single year's data grants additional justification to this updating of the database.

Directors have already discussed various alternatives aimed at improving the working of the formulas used to calculate quotas, and, except for the averaging of the GDP data, they have rejected the introduction of any major change. The preliminary calculations currently under consideration, however, indicate that averaging of GDP data does not help in any substantial way to address those few cases in which prolonged periods of above-average real GDP growth have been accompanied by declining shares in calculated quotas. This highlights, therefore, the need to deal on an ad hoc basis with those in which the formulas seem to produce unwarranted results.

The preliminary quota calculations for the Eleventh Review reveal the disparities, also observed in previous reviews, between members' shares in actual and in calculated quotas. In particular, there are a small number of countries whose calculated quotas exceed actual quotas by a very significant amount. There is a case, therefore, for a relative adjustment in quotas in the context of the Eleventh Review. The normal way to address this issue, as in the past, is to assign a part of an overall increase in quotas in proportion to members' shares in the total of calculated quotas, while assigning the other part according to members' shares in the total of actual quotas. The specific percentages to be assigned under the so-called selective and equiproportional mechanisms will necessarily be the result of extended negotiations, since the adjustment for specific members directly impinges on the relative positions of other members. In the past, the Fund has a gradual approach to restructuring quota shares, and it would be advisable to maintain that approach at the present stage, taking into account the benefits of preserving the principle of stability in the system of quota distribution. In this regard, we favor the view

that the quota increase should be predominantly based on the equiproportional alternative.

The increase in the total of calculated quotas since their last adjustment in 1990 provides indeed a useful indicator in order to assess the appropriate size of the Fund. This indicator, however, has not provided much guidance throughout the history of quota reviews as the differential between the calculated size of the Fund and its actual size has persistently widened. This long-run decline in the size of Fund quotas relative to the size of the world economy has to be judged in light of other factors such as, on the one hand, the increased private market access to finance current account imbalances and, on the other hand, the greater vulnerability to sudden shifts in market sentiments in the context of globalized financial markets. Taking all this into account, it would be very important to strengthen the role of the Fund in light of developments in the international financial system through a substantial increase in quotas.

Mr. Jonáš made the following statement:

I will start with the problem of the lack of data. Although almost one-third of the data used in making quota calculations have been estimated by the staff, I see no alternative, given the unavailability of official data, to counting on these estimates. I think that the preliminary calculations presented in the paper are a good basis for continued discussions, as they provide sufficient information about different aspects of the quota increase.

Mr. Mozhin voices concern that in case of Russia, non market mechanism of conducting trade with the former CMEA countries could significantly affect the calculation of the variability of current receipts. While I sympathize with for his concern, it seem to me that it is not supported by the data. Table 10 on page 41 of the staff paper shows that the variability of current receipts for Russia is quite high: for example, the Netherlands, with current receipts more than twice the size of Russia's, shows a variability of current receipts that is barely more than half the variability of Russia's receipts. For the membership as a whole, the ratio of variability to current receipts is approximately 0.05, while for Russia, it is about 0.11.

Another data-related problem is the averaging of GDP over a five-year period. This approach does not appear very effective for eliminating the effects of real exchange rate swings. But of course, if the costs of achieving marginal improvements turns out to be zero, there is no reason not to follow this procedure.

On the quota formulas, I see no reason to change the conclusion of our last discussion on quotas. I think that despite the problems mentioned in Mr. Mozhin's statement, the formulas presently used continue to provide reasonably good indicators of the relative economic positions of members.

Let me now turn to the size and distribution of the quota increase. As the preliminary calculations show, the overall magnitude of the disparities between countries' calculated and actual quotas has increased since the Tenth Review. This development points to growing disparities between the quota shares of the members and their relative positions in the world economy. The selective element in quota increases should therefore be large enough to bring the structure of actual quotas into better alignment with the present relative economic positions of the member countries. However, let me repeat that our chair remains skeptical about the desirability of *ad hoc* quota adjustment for a large number of countries.

Finally, a note on the size of the quota increase. The increase in the total of the calculated quotas can indicate the need for an overall increase in quotas. However, the staff correctly suggests that this is not the only indicator on which the size of the overall quota increase should be based. According to the staff, the increasing integration of the world economy and globalization of capital markets would justify a further increase in quotas beyond the illustrative calculations. I agree that the integration of the international capital markets is an important factor that significantly affects both the Fund and its members. However, it is not wholly clear to me that this factor necessary justifies a larger quota increase than that resulting from the increase in total calculated quotas. While larger capital flows potentially present greater risks of causing disruptions in the affected countries, they go hand in hand with the growing importance of private capital flows in meeting the financing needs of an increasing number of countries. After all, the steadily growing importance of private financing should be viewed as evidence of the Fund's success in promoting the market oriented reforms. For that reason, it is hard for me to view the increasing integration of the world capital markets as a factor calls clearly for an additional quota increase.

Mr. Zhang made the following statement:

The staff paper for the current discussion shows that the aggregate share in calculated quotas for the developing countries as a whole has continuously declined from 29.22 percent under the Tenth Review to 26.8 percent under the Eleventh Review. In fact, the calculated quota share of this group has steadily declined since the Ninth Review and it fell significantly in the Tenth Review. As always emphasized in previous relevant discussions, the calculated quotas

should, as much as possible, indicate the relative economic size of Fund members in light of ongoing changes in the world economy. Given the relatively stronger growth rates in output and trade recorded by the developing countries over the past years, it would be reasonable to expect a steadily rising trend in the calculated quota share of these countries.

Some improvements could be made in the quota calculations so as to make calculated quotas objectively reflect changes in members' relative economic positions. As indicated in the paper, there are eight members who have experienced average GDP growth rates of at least 1 percentage point above the Fund average, but who have seen significant declines in their calculated quota shares over the period 1975-93. China is a typical example among these countries. Since 1979, China has registered an average 9 percent rate of GDP growth per year, which is at least 4 percent above the average rate, and external activity growth has also been significantly fast. China's real GDP enjoyed a cumulative growth of around 45 percent in local currency terms from 1985-90. however, to my surprise, after being converted into SDRs, the GDP figure for 1990 is incredibly smaller than the figure for 1985. In this context, and since China's calculated quota share has been decreasing, my authorities are very concerned about these contradictory developments and strongly request that this prolonged problem be properly addressed as early as possible.

At the previous discussion on the evolution of the shares in Fund quotas of developing countries on July 14, 1995, some Executive Directors supported the staff's suggestion to deal with the problems of these countries with above-average real GDP growth and continually declining calculated quota shares on a case-by-case basis. In this context, we strongly urge the staff to explore concrete means by which this problem can be solved. A practical proposal, as the staff suggests, would be to consider the use of a real exchange rate for these countries based on, for example, 1980 or 1985, or an ad hoc adjustment of the GDP in SDR terms based on the overall economic performance of comparable countries. While a general approach to solve the problem of this group of countries is desirable, an ad hoc approach for each country or for some of them should not be excluded.

As a quota-based institution, the Fund's operations and activities should be financed by increases in members' quotas. Given the fact that the ratio of actual to calculated quotas has fallen from 95 percent at the end of the Fifth Review to 28 percent in the context of preliminary quota calculations for the Eleventh Review, it has become evident that increases in actual quotas have lagged behind the growth of the world economy and, without any action, the Fund will not be in a position to meet the challenges brought by the very rapid change in the

world economy, in particular the increasing economic integration and the globalization of financial markets. The calculations in this paper also suggest that a substantial increase in quotas would be warranted in the context of the Eleventh Review to allow the Fund to play its role in the changing world economy. Therefore, we support an early quota increase of a substantial size. Finally, we support a large equiproportional increase in order to maintain the representation of developing countries in this institution.

Mr. Al-Tuwaijri made the following statement:

The paper before us raises a number of important issues relating to the Eleventh Review. At this preliminary stage of our discussions, my remarks will be of a general nature.

First, while the preliminary calculations before us provide some basis for considering issues relating to the adequacy of quotas, the significant data deficiencies suggest that the calculations need to be approached with considerable caution.

Second, I share the view of the staff that the quota formulas continue to work as intended. I also find the effects of GDP averaging to be marginal. I am not sure that potential benefits of the use of GDP averaging to some countries in the current calculations would not outweigh other potential difficulties that may arise.

Third, as the staff paper notes, the number of members having shares in calculated quotas substantially higher than their shares in actual quotas has remained small. It is also important to recall that some of these countries decided to forgo some of the previous increases in quotas. By concluding the Tenth Review, the Board effectively decided that the overall structure of quotas was adequate. Furthermore, the overall picture of the divergences between members' calculated and actual quotas did not change significantly since the Tenth Review. Under the circumstances, I would not be in favor of attempting to effect a significant realignment of quota shares. The difficulties with the data for some member countries also serve as arguments in support of an equiproportional distribution of any quota increase. The exceptions could be addressed through ad hoc increases when appropriate.

Fourth, preliminary data show that the size of the Fund relative to the world economy has declined. However, it is not clear that a decision to increase quotas should give much weight to this finding. Rather, any decision to increase quotas should be based primarily on the activities that the Fund expects to undertake in the coming years as well as available liquidity. Here, it is noteworthy, as Mr. Newman points out, that the

Fund's liquidity position remains comfortable. Furthermore, there are reasons to believe that our liquidity position may turn out to be better than assumed only a few months ago.

Mr. Dlamini made the following statement:

The staff paper before us is helpful in advancing our discussion on the Eleventh General Review of Quotas. We hope that today's discussion could provide the staff with a good working basis from which to proceed to the final set of calculations which will be acceptable to all groups of member countries.

The quota calculations show a general decline in the quota shares for the majority of member countries. In particular, the calculations present a further diminution in the relative share of the non-oil developing countries. In this regard, we note a further sharp decline in the share of certain developing countries, including many in my constituency.

The continued decline in the share of the non-oil developing countries as a group in the total of calculated quotas was among the concerns which prompted this chair and many others, at the last July meeting, to raise questions regarding the working of the quota formulas and to request a fresh examination of the role of some of the variables in the quota formulas, as well as the possibility of including new variables with the aim of achieving a more equitable distribution of percentage shares. The results of the present calculations have heightened these concerns and we thus continue to see a valid reason in redressing the imbalances in a timely manner.

The staff have indicated that as revisions of data for all the membership become available they will be incorporated in a further set of calculations. While we consider this would help to improve the reliability of quota calculations for some groups of countries, the revised calculations would still fail to take adequate account of all relevant developments bearing on those members which face the problem of GDP underestimation due to the failure of GDP calculations to capture all the activities in the fairly substantial subsistence and non-monetized sector, require larger access to Fund resources and encounter continued exogenous shocks, including sharp terms of trade losses. Therefore, it is our strong view that quota formulas which properly take into account these circumstances can produce results that are more representative of the Fund membership, while giving a better and more useful guide in the process of examining any disparities between actual and calculated quota shares.

Turning to the particular situation in the countries of my constituency, I consider that the year 1993 is perhaps not a

good representative of the GDP level of most of the countries. This was the year when many countries in the East African region experienced a severe drought. It was not a favorable year for the countries in central and southern Africa either, as the economic activity in these countries was heavily affected by the lingering impact of the 1992 drought that swept almost the entire region. It was also the period when several countries continued to experience rapid depreciation in their currencies and compression of imports in line with adjustment imperatives. Therefore, it will be fair to say that these developments, together with the overall weakness in the statistical database, are likely to have contributed to the further shrinking of the relative share of many of these countries.

Averaging GDP over a number of years will likely not produce the desired results under the circumstances, as the illustrative calculations made by the staff on the basis of a five-year period also indicate. Obviously, the sharp contraction in output in 1993 will have a substantial negative impact on the level of any average GDP. We therefore strongly consider that the next revised set of calculations should take into account adjustments that will help to mitigate the impact of the adverse developments. Indeed, without such consideration an acceptable improvement in quota shares of both the countries in my constituency and those in other constituencies with similar experiences cannot be achieved.

On the issue of the size of the overall increase in quotas for Fund membership, we think it is perhaps useful to consider the extent to which it is appropriate to restore the real size of the Fund that has for a long time declined relative to the size of the world economy, and also to take into account the projected growth in the world economy and the prospective use of Fund's resources until the end of the Eleventh Review period. This would require, as noted by the staff, an overall increase beyond the proportion indicated in the staff calculations.

As regards the distribution of the overall increase in quotas, while it is important to bring members' quotas more in line with their relative economic positions, it is necessary to maintain a balance between different groups of countries. In the latter regard, consideration should be given particularly to the long-run decline in the share of the non-oil developing countries in actual quotas and the strong need of these countries for larger access to Fund resources. Therefore, it is our strong view that the equiproportional element should remain the preponderant distributive factor.

Mr. Barro Chambrier made the following statement:

The staff paper raises some of the major issues that need to be addressed in the context of the Eleventh Review. However,

this paper has not however taken into account the major concerns of developing countries, as expressed at the previous discussion, and particularly those of the sub-Saharan African countries. It was our expectation that this paper should aim to mitigate these concerns. Instead, the preliminary quota calculations, based on the methodology and the current formulas on which developing countries have expressed a need for improvement, indicate that these concerns would even be worsened under the Eleventh Review.

We also note that the quota calculations were derived from a database that included a large number of estimates. In this connection, we would like to emphasize that the GDP data of developing countries, particularly of low-income countries, in certain cases, are underestimated, due partly to the failure to capture the prevalent informal sector. In light of these weaknesses, premature quota calculations can be misleading, and shadow other important issues that the review should address.

With the globalization of the world economy and increased capital markets, we share the view that the Fund's role in the monetary system has substantially increased. In this context, the Fund's resource base should be adequately strengthened, in order to allow this institution to effectively carry out its mandate, as set out in the Articles of Agreement. We generally agree that, in order not to jeopardize the Fund's liquidity position, the quota calculations should remain based on the economic strength of individual countries. We do believe, however, that, given other functions performed by the quotas in the Fund, including access to the Fund's resources, a basis for SDR allocation and voting power, and taking into account of the cooperative nature of the Fund, a more reasonably balanced quota structure between countries and country groupings should be effected during this quota review.

As Directors would recall, during our recent discussion on the evolution of the shares in Fund quotas of developing countries, many Directors supported the reactivation of the basic votes, so as to ensure that the whole membership will continue to benefit from adequate representation and voting power in the Fund. We are pleased to note that other Directors, including Mr. Clark, continue to support this view.

Regarding the quota formulas, on many occasions, we have requested that the current quota formulas be revised, in order to better reflect the large increase in the membership, the financial needs of countries, and an equitable distribution. An improvement of the working of the current formulas would mitigate the adverse effects of the quota increase on some developing countries, especially the low-income countries. In any event, if the use of the current formulas in the quota exercise prevails, the Board should be well aware of the need to

supplement these formulas with qualitative indicators, and also to improve the methodology on some aspects of the quota calculations, and the quality of the data.

Finally, given the cooperative nature of the Fund, it is our expectation that the Board will reach a consensus on these issues.

Mr. Ismael made the following statement:

On the first question, let me first express my concern that, as the staff noted, one third of the data are estimated; more so if, as contended by Mr. Newman, up to half the data are estimated or do not meet the standards necessary for publication in International Financial Statistics. As such, I tend to question whether the results of these preliminary calculations could be used as a reasonable basis upon which to consider the issues bearing on an increase in quotas. I agree with Mr. Newman that it is important to have complete, accurate and timely data. In light of Mr. Clark's comments on averaging GDP data, I wonder whether the continued use of the latest official GDP data could result in lesser use of estimated data and, therefore, a better basis for our quota discussions.

The second question is tricky. There are four factors involved and their causal relationships are not necessarily as the staff want them to appear to be. Let me first reiterate what I have stated in my intervention at the time of the Tenth Review, namely, that the present set of formulas by itself has been working satisfactorily. What makes me uncomfortable is the fact that these formulas have now been applied to updated data which are, for a large amount, estimated. Therefore, the application of these formulas to the imperfect data calls into question whether the outcome provides reasonable indicators of the relative economic position of members. Besides, I agree with Mr. Newman that there is no definitive standard for determining a country's relative position in the world economy. This is, therefore, one more reason for the need to have reliable data inputted in the formulas in order that they can work as intended.

As long as disparities exist between calculated and actual quotas, there will be a continuing need to provide for adjustments in members' quotas. If the number of members quotas that are substantially out of line remains relatively small, as at the time of the Ninth Review, a similar distribution of the overall quota increase as applied under that review could again be considered in order not to reduce the quota share of developing countries as a group. Based on that same consideration, we also need to consider carefully proposals to increase the number of basic votes of countries, which, in particular, is of special importance for members with the

smallest quotas. Other qualitative considerations, such as those mentioned in the staff report, namely, the need to maintain a reasonable balance in the overall quota structure or in the distribution of voting power in the Fund, and to provide for individual quota increases that would be meaningful in terms of both the potential need of a member for Fund resources and its ability to contribute to the strengthening of the Fund's liquidity position over the medium term, certainly have a bearing on the distribution of quota increases, and should, therefore, be taken into consideration as well.

Finally, I agree with previous speakers that the total of members' calculated quotas provides an indication of the need for an overall increase in the size of the Fund. However, it is not an absolute indicator and it does not tell us what the appropriate overall rise of the Fund should be. Therefore, I am here only reiterating my chair's position during the recent discussion on the GAB and the earlier discussions on the adequacy of Fund's resources that the present Fund quota should probably be doubled to meet greater financing needs arising from the increased volatility of capital flows in an environment of globalized capital markets and in consideration of other factors bearing the size and role of the Fund in the world economy.

Mr. Lanciotti made the following statement:

I welcome the preliminary calculations prepared by the staff as a useful benchmark for our discussion.

I found the results of the illustrative calculations very useful, despite the weaknesses of the statistical database, which is a cause for concern. The staff paper clearly illustrates the deceleration of the rate of increase in calculated quotas in recent years, which after the Ninth Review has considerably reduced in comparison with the average rate of increase in the Fourth and the Ninth Reviews. This largely reflects the overall reduction of the rate of increase in the economic data used as the basic element for making quota calculations. In this respect, a question arises as to whether the variables used in making quota calculations reflect appropriately the changing international environment, characterized by rapidly growing capital markets and the role that the Fund should play in this new environment.

A positive response to this question would greatly simplify our work. However, before we can answer that question, we need to assess the prospective balance between the supply and demand for Fund resources. While I fully agree with Mr. Newman that this is an issue for future discussions, I am convinced that the adequacy of resources of our Institution, once we have defined its tasks, is crucial.

Concerning the difference between actual and calculated quotas, I am glad to note that the disparities remain relatively stable, albeit some increase results from a comparison between the calculations made for the Tenth Review, employing data ended in 1990, and those presented for the current discussion. It is encouraging that the number of members having shares in calculated quotas that are substantially in excess of their shares in calculated quotas remains at 16. Nevertheless, it is difficult to understand why 50 percent should be the most appropriate cutoff point in determining what is "significant." It is reassuring to note that even if, for example, we consider a threshold of 30 percent instead of 50 percent, the number of countries involved increases by only six additional cases.

In the light of the numbers contained in the paper by the staff, it appears very clear how relevant the distributional issue is, that is tracking the appropriate balance between "the need to provide for an adequate increase for all members, and for a restructuring of quotas to bring members better into line with their relative economic positions. It is less clear which the outcome will be, given different positions and possible conflicts arising from the fact that a zero-sum game is in place. Nonetheless, trying to reduce the disparities between calculated and actual quotas is crucial at this stage, in order to maintain the basic meaning of the quota, in terms of reflecting the relative position of economies in the world economy. This is relevant both for the assessment of the potential needs of the countries themselves, and of their ability to contribute to the strengthening of the Fund's liquidity position over the medium term.

As I have stated on previous occasions, the formulas currently used to calculate quotas are useful, but intrinsically limited, tools, in particular for addressing individual country cases. Discretionary corrections of the quota formula results might therefore be understandable and reasonable, to some extent. For this reason while noting that for a large majority of countries no substantial differences arise by using different formulas, and being broadly satisfied about the application of the present quota formulas, I remain flexible about possible ad hoc adjustments, for a limited number of cases. As long as this possibility remains open I do not see much scope for further refinements based on GDP averaging or alternative exchange rate conversion methods, which, according to the staff, seem to produce only marginal results.

Mr. Andersen made the following statement:

I welcome the staff report and the preliminary calculations as a necessary further step in the needed acceleration of the Eleventh Review. Furthermore, I note that these calculations seem to confirm the views earlier expressed

by this chair on quotas, most recently in connection with the discussion on the evolution of shares in Fund quotas of developing countries in mid-July. At this stage of the discussion, I will limit myself to three brief comments for emphasis.

First, the preliminary calculations seem to confirm that the present quota formulas have functioned quite well, and that they continue to provide reasonable indicators of the relative economic position of members. This chair finds that the formulas should be kept as simple and mechanical as possible. In this connection, I can accept the use of averaging of GDP data over a five-year period, even though the effects on the distribution of calculated quotas are essentially marginal.

Second, I am pleased to note that individual quota calculations have been made for the Baltic states, Russia, and other countries of the former Soviet Union. I particularly welcome the inclusion of estimates for interrepublican trade in the calculations. However, I would appreciate further information on the underlying data and the methods that were used in making estimates in order to better evaluate the results of the calculations. I note the concerns expressed by the staff more generally about the considerable amount of estimation of data which has been necessary on this occasion. I agree with previous speakers that this serves as another argument for giving due consideration to strengthening the Fund's database. Furthermore, we would, of course, also favor incorporating additional official data at a later stage in the quota review.

Finally, the calculations clearly underscore a need for early and substantial quota increases, and we generally believe that adjustments of member countries' quotas should take place through an appropriate combination of equiproportional and selective increases based on calculated quotas. All in all, I find the preliminary calculations to be a reasonable basis upon which to consider the issues bearing on an increase in quotas, and look forward to considering the forthcoming staff paper on those issues in due course, in order to examine how we best can achieve the early and substantial quota increases needed.

Mr. Havrylyshyn made the following statement:

While the illustrative quota calculations presented for the current discussion must be considered as only preliminary, they are certainly a reasonable basis for consideration of the issues. I wonder whether the staff could comment on the likely work program for the Eleventh Review and on the timetable that is currently envisaged. At the present stage, there is little reason to revise the formulas used to calculate quotas or the variables contained in those formulas, and certainly not for the sake of accommodating special situations. Special cases should

be treated separately on an ad hoc basis after the best possible technical efforts have been made, applying the standard formulas with the standard variables.

Let me first say a few words about the global quota calculation results before addressing the issues related to individual members' quotas.

The various numbers shown leave little doubt in my mind that a sizeable increase in the quotas is warranted, even if many Directors are not yet convinced of the need for a 60 percent increase to return the Fund to its relative position in the world economy following the Ninth Review. The staff has correctly noted some additional qualitative factors that argue for an increase that would take the Fund even beyond that needed to restore the relative position of the Fund beyond that held following the Ninth Review. These factors include increasing economic integration and the globalization of financial markets. I do not disagree that these factors generate a greater potential need for Fund resources, but would point out that the arguments go in both directions. I agree with Mr. Newman, Mr. Esdar, Mr. Cippa and other speakers that the right approach is to begin by defining the role of the Fund, assessing the likely demand for Fund resources, and examining exactly how the evolution of financial markets is likely to affect the Fund. This is clearly a subject for continuing discussions. My guess is that after considering such additional factors, I will remain of the view that a substantial quota increase is warranted.

I am satisfied that globally, the formulas used to calculate quotas are appropriate, and they should not be changed in any way, including through the use of different variables. I look forward to comments from the staff on the logic of the formulas. I had always thought relative size of economy was not the sole criterion, for given the Fund's focus on international financial stability, much weight has to be given to a country's relative role in global markets of trade and finances. Of course, the present formulas are not perfect and free of problems, and the staff has noted many of these problems and has even attempted to make some adjustments in data valuation to overcome some of them. For example, with respect to the GDP data and the related issue of exchange rate conversion, the staff concludes that averaging GDP data helps smooth volatility, but the effects on the distribution of calculated quotas are essentially marginal. I would agree that the effects viewed globally are marginal, but a deviation for one, or five, or even ten countries that is marginal for the entire membership relatively, may be not so marginal for the countries concerned. Let me address the issue of outliers with respect to the distribution of quota increases and individual members' quotas.

There is no question that one should consider special qualitative considerations affecting the size of individual increases, and I favor taking an ad hoc or case-by-case approach to those cases that in some way are outliers. I am hesitant to try changing the formulas and the variables in the formulas globally, in an effort to bring outliers into line. In taking such a case-by-case approach, we will need to assess who the outliers are; why they are outliers; and how, qualitatively, one can make an adjustment to address their special circumstances. This may in some cases be done entirely qualitatively after the calculation of quotas or it may be done by special estimates of the value assigned to the key variables, The staff paper for the current discussion has done this paper for some counties. Mr. Mozhin's comprehensive statement notes one special group--the Baltic states, Russia, and other countries of the former Soviet Union. I agree with many, although not all, of his suggestions, at least for the current stage of our preliminary efforts to refine the quota calculations. I certainly agree that the period 1975-93 was the worst possible period for a representative calculation of these countries' relative roles in the global economy. Apart from GDP and trade estimates, let me point out one set of outliers in this group, that neither the paper nor Mr. Mozhin considered directly. In about five to ten cases, the data for reserves, for unique reasons, are ludicrously low. For example, Table 10 of the staff paper gives values for reserves of only a few million dollars for countries such as Azerbaijan, Armenia, Belarus, Georgia, Ukraine. These values are one five hundredth or even one one thousandth of any reasonable expectation of reserve values. These calculations clearly merit some ad hoc adjustments.

As several previous speakers have indicated, we need to undertake some assessment of the demand for Fund resources and the potential ways of meeting that demand, such as through the establishment of emergency financing mechanisms. This clearly is something for future and continuing discussion. After considering such topics, my chair would likely continue to hold the position that here is justification for a substantial quota increase.

Mr. Shields made the following statement:

On the basis of the calculations presented, I see no reason to believe that they do not form a reasonable basis on which to proceed. Nevertheless, clearly a large amount of data has had to be estimated and this indicates once again the need for us to make further improvements in the timeliness of data provision by member states.

I have some sympathy with the comments that have been made about the arcane nature of the current formulas. However, they

seem to work well in most cases and it would be surprising if there were not occasional anomalies. I certainly have no enthusiasm to revise the formula and particularly not to introduce new variables. However, it may be useful to consider extreme outliers on a case by case basis. On the question of averaging GDP data, I have no strong views.

As to the distribution of any agreed increase in quotas, the existing quota structure should be broadly maintained. This means, as others have argued, that most of any increase should be allocated on an equiproportional basis. However, the tables do reveal some clear anomalies and it is not immediately clear how these should be dealt with. It would be a matter for concern if too much emphasis were placed on granting significant selective quota increases to a large number of countries. Such a procedure would bring about losses in the quota shares of the groups not covered by such increases, particularly the poorer developing countries. So there may be a role for some ad hoc decisions although these can prove to be politically contentious. I look forward to seeing staff simulations of possible allocation mechanisms which would go some way toward reversing the main anomalies of those with much higher than calculated quota shares.

I take note of the implications for the size of the world economy of the most recent calculations from the quota formulas. However, this is not the only factor, or even the dominant factor, in determining the appropriate size of the Fund. We need to look at a variety of issues, including the needs of the Fund, other borrowing arrangements, and changes in access to world capital markets. I will reserve any judgment until we reach a stage where we can take all of these factors into account.

Mr. Geethakrishnan commented that any proposal for a quota increase was indeed welcome news. It augmented the resource base of the Fund, and for a good number of the members it also increased their access to Fund resources whenever they sought to use those resources. At the same time, a quota increase would have a direct impact on voting rights--something very fundamental to the organization's structure. That last item needed to be carefully looked at and taken up, and that was why the Board needed to take up only those changes that did not undermine the sense of participation for a large portion of the membership. That was also the reason why the founding fathers of the organization had prescribed an 85 percent voting majority for making any drastic changes, including quotas. If the Committee was setting up a new organization, it would be free to talk in terms of any formula--mathematical or otherwise--but in existing organizations, there was a need to be sure that the decisions taken would not upset the system itself, or the way in which it functioned. In other words, there was a need to look at not only the beauty and the mathematical precision of the formula, but also the end results, before proceeding further. The staff papers brought out that the formula suggested by the staff, excellently

worked out, resulted in nearly 80 percent of the membership ending up with calculated quotas that were lower than their actual quota shares.

Although general reviews of Fund quotas traditionally had been conducted on the basis of five-year data periods, the proposals currently under consideration suggested that the Eleventh Review would be conducted on the basis of data for 1991-93, Mr. Geethakrishnan continued. That data period was not only shorter than those used in previous reviews, but it also represented a time when a very large number of countries had experienced economic turmoil: the industrial countries had undergone a recession and many of the developing countries had undergone large currency devaluations and exchange losses. He would prefer to use a longer data period that would represent more stable global economic conditions for the purpose of reviewing Fund quotas.

It should also be noted that, during 1991-93, many of the developing countries, in particular the "Asian Tigers" had experienced very rapid rates of growth, while the industrial countries had experienced recession, Mr. Geethakrishnan went on. The illustrative quota calculations contained in the staff paper for the current discussion clearly failed to capture the very sharp rise in developing countries' growth rates. For example, the purchasing power parity statistics prepared by the Fund and the World Bank indicated that India and China ranked sixth and seventh, respectively, in terms of economic power. However, they fell well below that rank in the illustrative quota calculations. That fact alone suggested that there may be a need to carefully reflect on whether the formulas used to calculate quotas were in need of fundamental changes.

Fund quotas should be calculated on the basis of data whose reliability and accuracy was beyond question, Mr. Geethakrishnan considered. However, one third of the data used in the staff paper for the current discussion had been estimated, and nearly one half of the data was only preliminary. It would be important to secure a significantly improved database before taking any final decisions on an increase in quotas.

If there were widespread support for an immediate increase in Fund quotas to augment the Fund's resource base, such an increase should be allocated on an equiproportional basis to all members, Mr. Geethakrishnan stated. The Committee could then come back to the issues related to the need for selective or special increases to correct anomalies in the quota structure. In the event that a large increase in quotas was agreed, he could support some special allocations to those members whose actual quotas were significantly out of line with their shares in calculated quotas. However, the number of "outliers" should, by definition, be few. His chair could not support any proposal to make only selective allocations under the Eleventh Review.

Mr. Autheman made the following statement:

> I agree with the conclusions of the staff and will therefore limit my comments to two issues: how should we deal with discrepancies, and should we deal with anomalies. I agree

especially with the conclusion that the quota formulas are working as intended. Therefore, I tend to conclude that they should be used.

In his concluding remarks of our July 14 meeting, the Chairman noted that there was "a tendency in the Executive Board to consider at this time that the equiproportional part of a quota increase should be dominant" and that there was "a certain preference for the use of ad hoc increases when well justified." This tends to indicate that, at least for this time, the quota formulas would not be appropriate. I think that when we look at the details we may well find that the ad hoc avenue is not fruitful. If I have understood Mr. Waterman well, he has suggested an ad hoc increase for 76 members, which makes quite a lot--16 on one side and 60 on the other.

This is quite an ad hoc treatment. It seems to me that the ad hoc approach can only be considered for very few members when there are huge anomalies which cannot be corrected according to formulas. I could support a large equiproportional component for several reasons. First, we hope to conclude this quota review rapidly; the greater the selective component, the greater the possibility of political disagreements. Second, we are concerned about the need to prevent too sharp a fall of the share of developing countries. Thus, there is a strong case in favor of adopting a greater equiproportional element in the quota increase agreed under the Eleventh Review than in the two previous quota reviews. However, if we disregarded the quota formulas for the Eleventh Review, we could find ourselves at the Twelfth or Thirteenth Review with a great increase in discrepancies. Indeed, these discrepancies have been partly the result of an excessive reliance on equiproportional increases in the past.

As for anomalies, I have no strong view about the option of using five-year averaging of GDP. I am not asking for it, but if it can help in some cases, I do not see why we should reject it. At least it would improve the quality of data marginally. But some anomalies may find solutions in other ways. For instance, it may be possible to adjust the anomalies in China's quota share after 1997. Like Mr. Clark and other Directors, I support an increase in basic votes.

Mr. Daïri stated that his comments for the current discussion were preliminary. He agreed with the staff and other Directors that the formulas used to calculate quotas were working relatively well at the present stage. However, he shared the views put forward by Mr. Berrizbeitia on the need to reassess the formulas for future quota reviews.

He agreed with other speakers that the increase in quotas agreed under the Eleventh Review should be distributed equiproportionally to all members and that special increases should be made only to the extent needed to avoid

any decline in the quota share of the developing countries in the Fund, Mr. Daïri commented. He supported the methodology of averaging GDP data over a five-year period to offset volatility and the effects of large fluctuations in exchange rates. He also continued to support the proposal for an increase in the number of basic votes to strengthen the relative positions of smaller countries in the Fund.

Finally, his chair would support a large increase in Fund quotas in order to bring the size of the Fund into line with the size of the world economy and its enhanced role in the globalized financial markets, Mr. Daïri said.

The Treasurer noted that, as the Fund's Articles did not specify how Fund quotas were to be increased, the Board was not obliged to use any predetermined methodology or formula in adjusting members' quotas under the Eleventh Review. One of the authors of the formulas traditionally used by the Fund to calculate quotas had recently published an article in the Princeton Economic Essay Series, giving an account of how those formulas had been derived and the reasons certain variables had been included in them. Essentially, the Bretton Woods formula had been adopted as the basis on which to make political judgments concerning countries' relative positions in the world economy and, therefore, in the Fund.

One problem in the original Bretton Woods formula was that it had more purposes than it had instruments with which to achieve those purposes, the Treasurer considered. For example, one of the main purposes of the Bretton Woods formula was to determine the relative economic sizes of individual countries. Thus, GDP data--which was perhaps the most traditional measure of economic wealth--had been included in the formula. However, the amount and type of GDP data used had been determined with a view to securing certain pre-fixed results, namely, so that the position of the United States would represent 50 percent of the world economy, and the United Kingdom--which had included its colonial empire, except India, at that time--would represent 25 percent of the world economy. France, India, and China were also to hold certain pre-established positions.

The Bretton Woods formula was also intended to measure countries' relative abilities to contribute to the resources of the Fund, on the one hand, and their likely demands for Fund resources, on the other hand, the Treasurer continued. For that reason, data on trade and fluctuations in trade--or goods, services, and private transfers--had also been included. A member's official reserves and current receipts could be seen as a measure of its ability to contribute to the resources of the Fund, and its data on current payments could be seen as an indication of its likely demand on the Fund's resources.

While some might wish to criticize the Bretton Woods formula, the staff did not consider that the use of other economic variables, such as population, could provide the same combination of indicators with respect to members' capacities to contribute to, or make drawings on, the Fund, the Treasurer went on. Indeed, the Executive Board had carefully reviewed the structure of the Bretton Woods formula on six different occasions, and only

one of those reviews had resulted in any change in the way Fund quotas were calculated. Moreover, the variants introduced in 1962/63 did not represent a fundamental change in the formula, but a change in relative weights assigned to its main variables.

Recently, proposals had been made to include population and certain financial variables in the formulas used to calculate quotas, the Treasurer added. Although the size of a country's population did not have a direct bearing on its relative economic size, or on its capacity to contribute to--or draw on--the Fund's resources, the inclusion of data on population in the quota formulas could act as an important balancing item that would take into account the subsistence sector--an area that had not yet been reflected in quota calculations. Such a change in the formulas would have a significant impact on the quota shares of countries like China and India, as well as the smaller countries of Asia and Africa. While some had argued in the past that additional data should be included in the quota formulas to reflect the importance of countries' financial sectors, the staff considered that those sectors were already covered by the data on reserves--which included net capital flows--and on GDP--which included earnings from, for example, international banking. Thus, there was a question concerning the extent to which it would be desirable to supplement existing data in the formulas which already reflected the relative financial importance of individual countries. The inclusion of additional financial data could have a significant impact on the quota shares of the United States, Japan, Germany, France, and the United Kingdom, as well as other countries with large financial sectors, like Belgium and the Netherlands. The staff would circulate a paper in due course dealing with possible inclusion of population and financial variables in the quota formulas for the information of Executive Directors.

Although the formulas currently used to calculate quotas clearly had an important economic and historical role, they also had limitations, the Treasurer noted. For example, the quota formulas would likely play a central role in any effort to restructure the Fund, based on calculated quota shares; but they would not apply to equiproportional quota increases, which were based on members' shares in actual quotas. Thus, if the increase in quotas agreed under the Eleventh Review was to be distributed equiproportionally, there would be no need to examine the quota formulas, because the quota calculations would not be needed if the increase in quotas was equiproportional. They would be relevant only to the extent that the Board wished to set aside a certain portion of the overall increase to bring members' shares in actual quotas into better line with their shares in calculated quotas, through selective increases--as in the Eighth and Ninth Reviews.

Although approximately one third of the data used in making the illustrative quota calculations contained in EB/CQuotas/95/1 represented data that were either estimated or preliminary, the estimates had been made by the area departments in close consultation with member country authorities in the context of Article IV consultations or missions related to requests for use of Fund resources, the Treasurer said. Approximately 10 percentage points of the data considered to be preliminary represented

data that had been received from member country authorities, but had not yet been published in International Financial Statistics. Those data were currently being reviewed by the staff of area departments and the Department of Statistics, and they would be included in International Financial Statistics soon. It was to be hoped that, following the current discussion, more reliable and up-to-date data would be submitted to the Treasurer's Department over the coming months. The staff of the Treasurer's Department planed to fine tune the quota calculations as final data became available from members. Perhaps Executive Directors could impress upon their constituent countries the importance of submitting accurate and up-to-date data to the Fund promptly. The Treasurer's Department would be willing to make the database that had been used in making illustrative quota calculations to Executive Director upon request.

The staff was using the data on countries' international reserves as published in the International Financial Statistics in calculating their quotas, the Treasurer stated. That practice traditionally had been followed by the Fund as a means of ensuring fully comparable treatment for all members. In that respect, it might be awkward to try to include data on the foreign exchange reserves of individual countries, unless those data were included in the entries on international reserves published in International Financial Statistics and those reserves were available for balance of payments purposes. In some countries, such as Kuwait or Saudi Arabia, that was not the case.

If Directors agreed to use a five-year averaging of GDP data, rather than the data for 1993, in the calculation of quotas, it would be important to ensure that that methodology would be applied to all members in order to ensure continuity and comparability in the calculations, the Treasurer commented. Illustrative quota calculations based on the use of five-year averaging of GDP data were presented in Appendix I of EB/CQuota/95/1. If all of the variables used in calculating quotas were averaged, the shares of the developing countries with open economies and high trade/GDP ratios would drop dramatically.

As the staff paper indicated, data on current payments and receipts from interrepublican trade for the period 1989-93 had been incorporated in the quota calculations for the Baltic states, Russia, and other countries of the former Soviet Union, the Treasurer said. The variability of current receipts in each successor state had been estimated based on the ratio of variability of current receipts to its average level for the Soviet Union as a whole. That ratio had been applied to the average level of current receipts in the period 1989-93 to apportion data among the countries concerned. In making those estimates, the Treasurer's Department had consulted with the staff of the European II Department. The European II Department considered that the apportionment of data was broadly appropriate, despite the difficulties involved in trying to extrapolate backward over a period of ten years. In the earlier years covered by the quota formulas, the level of variability for the former Soviet Union had been very low, as could be expected, given the system of managed trade that had been in place at that time.

Although each member of the Fund was allotted 250 basic votes under the Articles, any increase in quotas, even if it was distributed equiproportionally, would cause some shift in the voting structure, as the share of basic votes in total votes diminished, the Treasurer noted. For that reason, the staff considered that it might be useful to prepare a paper to show how the voting structure would change given various increases in the total of Fund quotas.

Looking to the future work of the Committee, the staff would prepare a paper on the factors bearing on the future size of the Fund, including the likely evolution of Fund liquidity; the prospective demand for Fund resources, in particular taking into account the globalization of financial markets; and the likely evolution of policies related to Fund borrowing, the Treasurer concluded. The staff would also deal in a subsequent paper with the effects of using real effective exchange rates for the purpose of converting GDP expressed in national currency to SDRs to address possible anomalies in the quota calculations and on alternative methods that could be used to allocate selective quota increases to those countries whose present quotas were most out of line with their calculated quotas.

The Acting Chairman made the following concluding remarks:

This has been a very useful discussion. I would like to draw the following tentative conclusions to help guide us in our future work on the Eleventh Review.

First, Directors concluded that the preliminary quota calculations provided by the staff could broadly serve as a basis for discussions on an increase in quotas under the Eleventh Review. However, all Directors expressed concern--as did the staff and management--about the large amount of estimation that the staff needed to make in preparing the database for these calculations. Indeed, this large amount of estimation came as a surprise, and I hope that Executive Directors will encourage their countries to submit complete and accurate data so that a new set of calculations can be provided before the end of the year.

Second, most Directors again noted that the quota formulas were working broadly as intended and they saw no need to change the quota formulas on which the calculations have been made. Nevertheless, some Directors felt it would be useful to re-examine these formulas and to consider possible changes in them. The staff will in due course circulate a paper on this subject, but I should add that it was generally felt that the current review should be constructed on the basis of the current formulas.

Third, a number of Directors believed that it was premature to come to a view regarding the size of the overall increase in quotas under the Eleventh Review. Directors noted that the appropriate overall size of the Fund would need to be

determined with a view to the likely future demand for financing by the Fund, the evolution of the Fund's liquidity position, the access of members to market financing, and related questions, rather than solely on the basis of calculated quotas. A number of other Directors felt that the calculations provide support for a substantial increase in quotas under the Eleventh Review. In this connection, it was observed that an increase in quotas of the order of 60 percent would broadly restore the size of the Fund in terms of the size of the world economy to the 1983 level. Some Directors felt that, given developments in the world economy since that time, a doubling of quotas would not be out of line. Furthermore, Directors' comments at the recent discussion on the role of the Fund would support the conclusion that a large increase in quotas is needed to support the activities of the Fund in the years ahead.

Fourth, many Directors pointed out that the quota calculations provide important indicators of the relative positions of members in the world economy and, in particular, they show the changes in those positions that have occurred since the last adjustment of quotas. Most Directors were of the view that the new calculations presented a reasonable and acceptable indication of their countries' relative economic positions as determined by the quota formulas.

Many Directors observed that the use of market exchange rates in converting GDP expressed in national currency to SDRs has continued to obscure the full importance of the real domestic growth of the economy for some countries. Many Directors did not favor the technique of averaging GDP over a five-year period, and a number of you suggested that an ad hoc approach might be tried to address the anomalies. In that connection, it was suggested that consideration be given to the use of real effective exchange rates based on 1990 or 1985 as a possible alternative to the use of current market exchange rates. The staff will show the effects of using, on an ad hoc basis, a constant real effective exchange rate for conversion purposes in a short paper dealing with these possible anomalies in the calculations.

Fifth, many Directors emphasized that the quota increase under the Eleventh Review should be predominantly equiproportional and that a further erosion of the quota shares of developing countries should be avoided. However, the calculations also show that a relatively large number of countries have shares in calculated quotas that are not reasonably reflected in their shares in actual quotas. A number of Directors, therefore, are of the view that some further restructuring of quota shares would be desirable in the context of the Eleventh Review. In this connection, Directors noted that 16 countries have shares in calculated quotas in excess of 50 percent of their share in actual quotas. I observe from this

part of today's discussion that, while some further restructuring of the quota shares is warranted on the basis of the quota calculations, there seemed to be a broadly based feeling that the extent of the restructuring should be smaller than was undertaken in the Eighth and Ninth Reviews, and should focus on those countries whose present quotas are significantly out of line with their relative economic positions. Several speakers also suggested that further consideration be given to amending the Articles of Agreement to increase the number of basic votes, and the staff will present a paper on the effects of such a decision later.

Sixth, the quota calculations discussed today can provide only a broad guideline of the extent to which a realignment of quota shares would seem justified. The issue of how to restructure quota shares goes to the heart of our discussions on quotas. It may, therefore, be useful for the staff to prepare a short paper to show, illustratively, the effects of adopting different methods of allocating an increase in quotas, in particular to adjust the shares of those countries whose present quotas are significantly out of line, in the context of different illustrative increases in the size of the Fund. The staff will aim to issue this further set of calculations in the next few weeks.

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REINHARD H. MUNZBERG
Secretary