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August 10, 1995

To: Members of the Committee of the Whole  
on Review of Quotas

From: The Secretary

Subject: Eleventh General Review of Quotas - Preliminary Quota Calculations

There is attached for consideration by the Committee of the Whole a paper presenting preliminary quota calculations in connection with the Eleventh General Review of Quotas. A summary and conclusions appear on pages 35-40.

Mr. Roncesvalles (ext. 37800), Mr. Tavlas (ext. 37493), Mr. Berrigan (ext. 37807), or Mr. Christou (ext. 37809) is available to answer technical or factual questions relating to this paper prior to the Committee's discussion scheduled for Monday, August 28, 1995.

Att: (1)

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Department Heads

INTERNATIONAL MONETARY FUND

Eleventh General Review of Quotas--Preliminary Quota Calculations

Prepared by the Treasurer's Department

(In consultation with other Departments)

Approved by David Williams

August 9, 1995

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## I. Introduction

The Interim Committee, in its communiqué issued on April 26, 1995 requested the Executive Board "to continue to review the adequacy of the Fund's resources, and, in connection with its review of the role of the Fund, to carry forward its work on the Eleventh General Review of Quotas." 1/ The Executive Board has recently discussed the Fund's financial resources, including a possible enlargement of the GAB, issues relating to the evolution of quota shares of developing countries, and the role of the Fund on the basis of a statement by the Managing Director and a number of staff papers. 2/ This paper presents updated quota calculations for all members of the Fund, using the same procedures and quota formulas that were agreed in connection with the three most recent general reviews of quotas; the data and calculations should at this stage be regarded as preliminary, and the staff intend to finalize the calculations on the receipt of final data from members.

The quota calculations have been made using data through 1993, as agreed in the most recent discussion of quotas in the Executive Board. 3/ These calculations update those that were made for the Tenth Review using data through 1990. As indicated in previous papers on quota calculations, quota calculations provide an indicator of the relative positions of individual members in the world economy, and they indicate the extent of disparities between members' shares in actual quotas and their corresponding shares in calculated quotas that have arisen or persisted since the last increase in quotas was agreed in 1990, on the basis of data ended in 1985. The calculations can thus be useful as a guide in discussions on the distribution of quota increases, as in past quota reviews.

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1/ Paragraph 5, Communiqué of the Interim Committee, April 26, 1995.

2/ See "Statement by the Managing Director on the Fund's Financial Resources, Executive Board Meeting - March 24, 1995," Buff/95/20 (3/15/95); "Updated Calculations Bearing on the Size of the Fund and SDR Allocations," EBS/95/44 (3/20/95); "The Evolution of the Shares in Fund Quotas of Developing Countries," SM/95/152 (6/22/95); "Concluding Remarks by the Chairman, Evolution of the Shares in Fund Quotas of Developing Countries, Executive Board Meeting 95/67 - July 14, 1995," (Buff/95/66, 7/18/95); and "The Role of the Fund - Financing, and its Interactions with Adjustment and Surveillance," SM/95/169 (7/14/95). The Executive Board has also discussed the General Arrangements to Borrow (see "The General Arrangements to Borrow - A Review," EBS/95/117 (7/14/95); "Borrowing by the Fund - A Chronological Review," EBS/95/122 (7/25/95); "Concluding Remarks and Personal Comments by the Chairman - Possible Enlargement of the General Arrangements to Borrow, Executive Board Meeting 95/72 - July 27, 1995," Buff/95/75 (8/2/95); and "Establishment of Supplementary Lines of Credit for the Fund," EBS/95/129 (8/2/95)).

3/ Buff/95/66 (7/18/95).

The calculations and comparisons also provide an indication of the changes in the aggregate of calculated quotas and their statistical components since the last set of quota calculations was made. In this way, they provide a measure of the overall growth of the world economy, and thus have a bearing on the appropriate size of the overall increase in Fund quotas under the Eleventh Review. Other factors, such as the Fund's role in the world economy, changes in global capital markets, the evolution of the Fund's liquidity position, and possible demand for the Fund's resources over the medium term, also have a bearing on the appropriate size of the Fund. These and related issues will need to be taken into consideration in due course in coming to a conclusion on the size of the quota increase under the Eleventh Review.

The paper is organized as follows: Sections II and III describe, respectively, the formulas and the data used to make the quota calculations. Section IV presents an analysis of the results of the calculations. Section V provides a summary and some concluding observations.

## II. Quota Formulas

The quota formulas used in this paper are the existing five quota formulas that have been used for making quota calculations since the time of the Eighth Review in 1982/83. In March 1994, the Committee of the Whole established in connection with the Tenth General Review of Quotas conducted a major review of the working of the quota formulas, and concluded that the results of the existing quota formulas give a reasonably comprehensive measure of the relative economic size of member countries, and that the formulas were broadly working as intended. 1/ In July 1995, the Executive Board examined issues relating to the evolution of the share of developing countries in the total of Fund quotas. In this context, the Executive Board agreed to update the quota calculations on the basis of the existing quota formulas, 2/ and to consider illustrative calculations made on the basis of a five-year average of GDP. These calculations are presented in Section IV below.

A single calculated quota for each member has been determined using the following procedures:

- a. calculations are made using the Bretton Woods formula;

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1/ See "The Working of the Quota Formulas," EB/CQuota/94/2 (2/28/94) and the Minutes of the Meeting of the Committee of the Whole on Review of Quotas (Meeting 94/1, 3/18/94).

2/ EBM/95/67 (7/14/95). See Appendix III for the mathematical specification of the quota formulas.

b. calculations are made using each of the other four formulas, "normalized" on the total size of the calculated quotas that results from the use of the Bretton Woods formula; such normalization permits comparison of each of the five quota calculations made for each member; 1/

c. the lowest two results of these normalized calculations are averaged;

d. the calculated quota is derived as the higher of the calculations based on: (i) the Bretton Woods formula and (ii) the average of the lowest two calculations of the other four formulas.

### III. Data Used in the Calculations

Appendix I, Table 10 presents the economic data used in making quota calculations. The basic data used in the calculations are the following:

- a. GDP at current market prices for 1993 and average GDP for 1989-93;
- b. official holdings of reserves, comprising holdings of gold (valued at SDR 35 per fine ounce), SDRs, reserve positions in the Fund, foreign exchange, and European Currency Units (ECUs), which are averaged over 12 months for 1993;
- c. annual average of current receipts (goods, services, and private transfers) for the five-year period from 1989 to 1993;
- d. annual average of current payments (goods, services, and private transfers) for the five-year period from 1989 to 1993; and
- e. variability of annual current receipts for the 13-year period from 1981 to 1993, defined as the standard deviation from the five-year moving average, centered on the third year.

As indicated above, this paper also presents quota calculations on the basis of a five-year averaging of GDP, using the 1989-93 period. Such an averaging procedure helps to avoid abrupt shifts in relative calculated quota shares of members that arise in part from sharp appreciations or

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1/ It might be noted that the individual quota calculations could be normalized on any given figure, and the results could be shown as a set of ratios. The technique of normalizing the calculations on the total size of the Fund yielded by the use of the Bretton Woods formula has been customary since 1962/63 when variants of the original Bretton Woods formula were introduced.

depreciations of the real exchange rate against the SDR or from members' economies being in different relative cyclical positions, as discussed at EBM/95/67 (7/14/95).

1. Conversion to SDRs

All data are expressed in SDRs. GDP and current account variables were generally converted from national currencies at the annual average of official daily exchange rates, except where the use of official exchange rates would result in SDR-denominated data that would appear to be unduly distorted and contrary to other indicators of the size of such variables. Official holdings of gold were valued at SDR 35 per fine ounce, while other reserve assets were converted into SDRs at end-month exchange rates. For countries participating in the European Monetary System (EMS), foreign exchange holdings include ECUs issued by the European Monetary Cooperation Fund (EMCF). Gold and U.S. dollar assets deposited with the EMCF by the countries concerned are excluded from their official holdings of gold and foreign exchange, while their ECU counterparts are included. 1/

Conversion of domestic economic aggregates, such as GDP, into SDRs through the use of official exchange rates for the local currency may result in some distortions of members' calculated quota positions because the extent to which domestic price increases are reflected in movements in the exchange rate can differ from country to country, which may result in an under- or over-valuation of market exchange rates in the short run. A further factor that might distort the GDP data expressed in SDR terms is the existence of dual exchange markets, multiple currency practices adopted by members, and exchange controls and other restrictions.

There appear to be a few instances in which a decline in a member's share in calculated quotas is associated with a real depreciation of its currency which has affected the country's GDP variable used in quota calculations. 2/ A similar effect may arise in connection with an appreciating real exchange rate, in which a member's share in calculated quotas would increase despite having a below-average rate of growth (compared with other Fund members) in real GDP. To deal with this problem of GDP valuation, Directors have agreed to consider, as noted above, the averaging of GDP data over a five-year period, and also to examine such problems as may arise on a case-by-case basis. The problem of GDP valuation is discussed further below in Section IV.4.

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1/ The valuation basis used by the EMCF is the lower of the average market price of gold over the preceding six months or the average market price of the penultimate working day. However, as on previous occasions, no adjustment has been made which would exclude from the reserves of these countries the excess of the market value of the gold deposited over its value at SDR 35 per fine ounce. Such adjustments would have had little impact on the calculated quotas.

2/ See SM/95/152, pp. 24-33.

For the Fund members that had been members of the Council for Mutual Economic Assistance (CMEA), other than the states of the former Soviet Union, and for Mongolia, the conversion factors for GDP and current account data vary according to the statistical practice of the member. For current account data, commercial exchange rates that applied to external transactions were used as conversion factors for periods when such commercial rates were in existence. For some countries, however, because of the absence of a commercial exchange rate, a conversion rate for current transactions of these countries was imputed from the average commercial rate for the U.S. dollar/transferable ruble of the remaining CMEA members.

For the Baltic countries, Russia, and the other countries of the successor states of the former Soviet Union, GDP was converted into SDRs using a constant real exchange rate against the SDR with 1990 as a base period. It may be recalled that at the time of the Tenth Review, (nominal) GDP data for 1990 were based on the methodology agreed by the Executive Board for the quota calculations with respect to the former Soviet Union as a whole that had been used for determining the initial quotas of these countries. 1/ A part of the 1990 GDP for the FSU as a whole--the output of the extractive sectors--was converted at the official exchange rate, and the remainder of GDP was converted at a commercial rate that approximated the relationship between external and domestic prices of the goods concerned. In the period 1991-93, the real exchange rates of many of the successor states are generally considered to have fallen to such an extent that the use of market exchange rates, which were introduced in 1991 and 1992, would have resulted in an undue distortion of the relative economic size of these members' economies when measured in SDR terms. On the assumption that the data for 1990 used for the Tenth Review represents a reasonable benchmark, a conversion factor was derived using a constant real exchange rate against the SDR in the 1990-93 period. 2/

## 2. Entrepôt trade and foreign banking transactions

Data for external current transactions have been adjusted downward to include significant entrepôt trade on only a net basis because gross flows of entrepôt trade unduly inflate both the current receipts and payments figures of a number of members. A similar adjustment was made

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1/ See "Quota Calculations for the Republics of the Former Soviet Union--Methodological Issues," EB/CW/QMethodology/92/1 (2/28/92), and "Tenth General Review of Quotas - Preliminary Quota Calculations," EB/CQuota/94/1 (2/25/94).

2/ For purposes of estimating average GDP data for 1989-93 individually for each of these members, data for 1989 were derived by a similar constant real exchange rate methodology, also using 1990 as a base year.

for interest received and paid on offshore banking activities in the services account. 1/ These latter adjustments are preliminary and in some instances incomplete, and the staff will continue to monitor this issue in the course of its work on the Eleventh Review. (Notes to the individual countries presented in Appendix II indicate those countries for which such adjustments were made.)

3. Calculations for successors to the former Czechoslovakia and the former Yugoslavia, and for the Baltic countries, Russia, and the other countries of the former Soviet Union

Procedures have been developed to assemble the appropriate data used in the present paper and to make individual quota calculations for certain Fund members that were formerly constituent parts of other countries during the period for which data were required for the Ninth and Tenth Review calculations. It will be recalled that actual quotas of the successor states to the former Yugoslavia and the former Czechoslovakia could not be determined by making quota calculations for each of the successor states independently, as would normally be the case for new Fund members. Instead, these members' actual quotas (equivalent to their quotas under the Ninth Review) were determined by attributing to a successor state a proportionate share in the Ninth Review quota of the former country (Czechoslovakia or Yugoslavia). 2/ For the Baltic countries, Russia, and the other countries of the former Soviet Union, actual quotas under the Eighth and Ninth Reviews were determined at the time of their membership in the Fund. Quota calculations for the former Soviet Union as a whole were first apportioned among the constituent countries, using a key based on the customary quota formulas and available data for each of the successor states. 3/

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1/ In cases where offshore banks are not integrated into the domestic banking system and are treated as nonresident banks, the issue of gross interest paid and earned does not arise because the statistical practice is to exclude such flows from members' balance of payments accounts.

2/ The apportionment was made by (i) attributing data of the former country amongst its successor parts; (ii) making quota calculations using the formulas of the Ninth Review; and (iii) distributing the actual quota of the former country amongst its successor states according to the relative shares of successor states in the aggregate of their calculated quotas under the Ninth Review. For example, these procedures yielded a ratio for the Czech Republic and the Slovak Republic of 2.29:1 of their calculated quotas under the Ninth Review, and this ratio was applied to apportion the actual quota of the former Czechoslovakia. See "Czech Republic and the Slovak Republic - Quota Calculations," EBS/92/213 (12/16/92), and "Quota Calculations for the Successor Republics of Yugoslavia," EBS/92/206 (12/7/92).

3/ The distribution key was a Bretton Woods formula variant applied to data on trade, GDP, and reserves. See EB/CW/QMethodology/92/1.

Individual actual quotas for each of these members were then agreed by the Executive Board by fitting the member's initial quota with the quotas of existing members with comparable economic size and characteristics. 1/

At the time of the Tenth Review, individual quota calculations were not made for the successor states to the former Czechoslovakia, the former Yugoslavia, or for the Baltic countries, Russia, and the other countries of the former Soviet Union. The statistical database for the period through 1990 under the Tenth Review posed difficulties of comparability and interpretation, and calculations were made only for the former Yugoslavia, the former Czechoslovakia, and the former Soviet Union as a whole. However, calculated quotas for each of the relevant successor countries were presented in EB/CQuota/94/1 by apportioning the calculated quotas of the three former unions. Such apportionment employed these countries' relative shares in quota calculations made in connection with the Ninth Review, as discussed above. 2/

For the Eleventh Review, the requisite data for the years 1992 and 1993 have become available for Croatia, the former Yugoslav Republic of Macedonia, and Slovenia, as well as for the Czech Republic and the Slovak Republic. In those cases where the requisite individual country data did not exist extending backward to 1981--i.e., for the purpose of calculating the variability of current receipts--the data for the former Yugoslavia and the former Czechoslovakia were attributed to their successor states on the basis of relative shares in current receipts in 1986-91 (Yugoslavia) and 1973-85 (Czechoslovakia). GDP data for Croatia, the former Yugoslav Republic of Macedonia, and Slovenia are available beginning in 1990, and a four-year average (1990-93) of that variable was used in lieu of the five-year average (1989-93) in the relevant calculations using average GDP data.

As indicated above, individual calculated quotas for the Eleventh General Review have also been made for each of the Baltic countries, Russia, and the other countries of the former Soviet Union. The requisite data on international reserves in 1993, GDP for the period 1989-93, and current receipts and payments for the period 1989-1993 were provided by the relevant

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1/ The Executive Board agreed to incorporate into the initial quotas of these members an upward adjustment that took qualitatively into account concerns regarding data quality and coverage, as well as the exclusion from the calculations of interrepublic trade data.

2/ See EB/CQuota/94/1, Appendix I, Table 3. The distribution keys for determining Tenth Review calculated quotas were those that had been used to apportion the actual (Ninth Review) quotas of the former Czechoslovakia and the former Yugoslavia; for the former Soviet Union, the distribution key used was the relative shares in Ninth Review calculated quotas of the constituent parts of the former union, as indicated by the Bretton Woods variant shown in Table J.2, EB/CW/QMethodology/92/1, Supplement 1 (2/28/92), p. 98.

area department. As the quota calculations relate to the individual countries, current receipts and payments from interrepublican trade for the 1989-93 period have now been directly incorporated in the calculated quotas derived for these countries. 1/ The variability of current receipts in each successor state was estimated in the absence of complete data for 1981-93. 2/

#### 4. Sources of the data

The data used in the quota calculations are primarily official data, taken from the IMF Economic Information System (i.e., data published in the IFS), supplemented by data from the WEO database and by estimates provided directly by the area departments. 3/ For over half the member countries some or all data listed in Appendix II have been provided by the area departments, although in a considerable number of these cases, this reflects only publication lags and the fact that area departments were in possession of more up-to-date official data than had been published in the IFS. For 118 countries, official current account data were unavailable for one or more years for the period from 1989 to 1993. For 50 countries, data were unavailable in the IFS for reserves for 1993, while estimates have been used for 109 countries for GDP in 1993. The extent of data estimation by the staff is a cause of some concern because weaknesses in the statistical database impact directly on the reliability of the quota calculations. While it is unlikely that revisions of data for only a few countries would affect the calculations to any material extent, such revisions of the data will be incorporated in the calculations at a later stage of the quota review.

#### 5. Countries excluded from the calculations

In several cases (Afghanistan, Iraq, Liberia, and Somalia), the requisite data through the year 1993 are not available and calculations cannot be made for these countries. The staff will monitor the availability of data for these countries and include them in the database of the Eleventh Review when data, supplemented by staff estimates, become available.

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1/ As noted above, interrepublic trade was previously incorporated into the quotas for these countries through a qualitative upward adjustment of the Eighth Review quotas of these countries.

2/ The estimates were based on the ratio of variability of current receipts to its average level for the former Soviet Union as a whole. This ratio was applied to the average level of current receipts in the period 1989-93 for each of the successor states in order to derive estimates for variability.

3/ The sources of the economic variables used in the calculations are indicated in the notes to individual countries provided in Appendix II.

6. Comparative growth of variables used in the calculations

With the exception of external transactions, the overall rate of increase in the economic data used for making quota calculations has tended to slow in the period 1991-93, compared with the three most recent quota reviews (see Table 1). The aggregate of GDP for all members in 1993 was only 10.5 percent higher than in 1990, compared with an increase of 33.1 percent in the period from 1986 to 1990, and 42.6 percent from 1981 to 1985; the average annual increase in GDP thus decelerated to 3.4 percent in the most recent period, compared with 5.9 percent and 7.3 percent during the periods 1986-90, and 1981-85, respectively. This decline in the growth of nominal GDP over the most recent period is attributable to several factors: (i) real growth in the industrial countries slowed markedly in the period 1991-93, compared with the five-year period comprising the Tenth Review; 1/ (ii) global inflation in the SDR terms continued to moderate over the period 1991-93; 2/ (iii) several of the larger members of the Fund--including the United States, the United Kingdom, Canada, and Italy--experienced large exchange rate depreciations (against the SDR) during the years 1991-93; 3/ and (iv) real economic output among the economies in transition fell sharply in the early 1990s, reflecting the necessary reform and stabilization efforts, very high inflation rates in some countries, and civil strife in the former Yugoslavia. 4/

The current account variables used in the Eleventh Review calculations have grown at a much faster rate than GDP, after having risen at a slower pace than GDP in the 1986-90 period used for the Tenth Review. The increases in the rates of growth in these variables reflect, in part, the following factors: the effects of the exchange rate depreciations experienced by some of the larger Fund members as well as by many developing countries, on current receipts; the unification of Germany; 5/ the relaxation of the external financing constraint for many developing countries in light of their successful adjustment efforts and the increase in world financial integration; and the inclusion of data with respect to

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1/ Real GDP grew by 3.25 percent among the industrial countries during 1986-90, and by 1.0 percent during 1991-93. Real growth among the developing countries averaged about 5 percent in the latter period, compared with a 4 percent growth rate during 1986-90. See World Economic Outlook, May 1995.

2/ The average annual inflation rate in SDR terms fell from 5.1 percent in 1981-85 to 3.2 percent in 1986-90 and to 3.0 percent in 1991-93.

3/ It will be recalled that the crises in the exchange rate mechanism of the EMS occurred in 1992 and 1993.

4/ Real output in the economies in transition fell by about 35 percent in the three years to 1993.

5/ Data for Germany have been compiled to include the former German Democratic Republic.

Table 1. Rates of Growth of Variables  
Used in Quota Calculations

Variable	1993 over 1990 (1)	1990 over 1985 (2)	1985 over 1980 (3)	1980 over 1976 <u>1/</u> (4)
	<u>(Percentage increase)</u>			
Gross domestic product	10.5	33.1	42.6	56.0
Reserves	15.9	41.6	18.8	65.6
Current receipts	25.7	25.5	56.6	81.8
Current payments	25.9	24.5	59.8	85.4
Variability of current receipts	10.3	38.3	64.6	56.8
	<u>(Average annual compound growth rates, in percent)</u>			
Gross domestic product	3.4	5.9	7.3	11.8
Reserves	5.0	7.2	3.5	13.5
Current receipts	7.9	4.6	9.4	16.1
Current payments	8.0	4.5	9.8	16.7
Variability of current receipts	3.3	6.7	10.5	11.9

1/ Including data for 144 countries that participated in both the Seventh and Eighth Reviews.

interrepublican transactions for the Baltic countries, Russia, and the other countries of the former Soviet Union for the 1989-93 period.

The growth rates of the variability of current receipts and of reserves have declined significantly in the data through 1993. The relatively low levels of variability for many members, particularly developing countries, reflect the relative stability of petroleum and other commodity prices in the early 1990s, following the sharp increase in petroleum prices that occurred in the late 1970s and the sharp decline that occurred in the 1980s. <sup>1/</sup> In the period from 1991 to 1993, foreign exchange and other official reserves grew by about 16 percent. The relatively fast growth of reserves appears to reflect the continued adjustment efforts of indebted countries and the large capital inflows experienced by a number of fast-growing developing countries--particularly in Asia and in the Western Hemisphere--as well as the counterpart holdings of large scale intervention by some countries over the most recent period.

#### IV. Results of Quota Calculations

The quota calculations are summarized for the major groups of countries <sup>2/</sup> in Table 2 and shown for individual members in Table 3 and in Appendix I, Table 11. This table also includes comparable data on actual quotas and the calculated quotas derived under the Tenth Review. A summary of the calculations for the membership as a whole is given in Table 4, which also shows the comparable data and calculations made in recent previous quota reviews. In addition, Appendix I, Table 12 summarizes the average contribution of each variable in the quota formulas to calculated quotas for country groups for the Tenth and Eleventh Reviews.

##### 1. Growth of calculated quotas

The rate of growth of total calculated quotas for the Eleventh Review reflects the deceleration of annual rates of growth of most of the underlying variables since 1990, as discussed above. Calculated quotas total SDR 524 billion, compared with a total of SDR 441 billion based on data ended in 1990, and SDR 330 billion based on data ended in 1985. The increase in calculated quotas since the Ninth Review, when quotas were last adjusted, is of the order of 60 percent, compared with an average rate of increase of total calculated quotas between the Fourth and Ninth Reviews of about 75 percent.

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<sup>1/</sup> It may also be noted that the period for the calculation of variability, 1981-93, no longer includes the large increase in oil prices in 1979; as a consequence, the relative weight of the variability component in the quota calculations has fallen sharply, especially for the major oil exporting countries.

<sup>2/</sup> As is customary, the use of IFS country groups is for presentational purposes only and to provide some historical background.

Table 2. Shares in Total of Calculated and Actual Quotas

(In percent, except as indicated)

	Fourth Review	Fifth Review	Sixth Review	Seventh Review	Eighth Review	Ninth Review	Tenth Review	Eleventh Review
<u>Calculated quotas</u>								
Industrial countries	76.9	78.6	76.7	68.9	67.4	66.6	70.8	73.2
Developing countries	23.1	21.4	23.3	31.1	32.6	33.4	29.2	26.8
<u>Actual quotas 1/</u>								
Industrial countries	72.5	71.4	69.3	63.8	62.2	63.1	60.5	60.5
Developing countries	27.5	28.6	30.7	36.2	37.8	36.9	39.5	39.5
<u>Ratio of calculated to actual quota shares</u>								
Industrial countries	1.06	1.10	1.11	1.08	1.08	1.06	1.17	1.21
Developing countries	0.84	0.75	0.76	0.86	0.86	0.91	0.74	0.68

1/ Quotas existing at the time of a review, i.e., before the quota increases agreed as a result of the review.

Table 3. Calculated Quotas of Fund Members

(In millions of SDRs)

FUND MEMBERS (RANKED BY AGREED QUOTAS)	ELEVENTH REVIEW			TENTH REVIEW	
	BRETTON WOODS REDUCED (1)	AVERAGE OF LOWEST TWO (2)	CALCULATED QUOTA (HIGHER OF COL. 1 & 2) (3)	CALCULATED QUOTA (4)	AGREED QUOTA (5)
	UNITED STATES	89,628.1	76,964.7	89,628.1	79,206.6
GERMANY	45,811.4	45,900.2	45,900.2	34,854.7	8,241.5
JAPAN	53,947.9	42,435.2	53,947.9	40,706.5	8,241.5
UNITED KINGDOM	26,899.4	27,747.4	27,747.4	23,805.3	7,414.6
FRANCE	28,401.7	26,362.5	28,401.7	23,716.4	7,414.6
SAUDI ARABIA	6,560.9	7,751.5	7,751.5	11,125.8	5,130.6
ITALY	23,179.1	23,615.2	23,615.2	20,575.3	4,590.7
CANADA	15,964.5	17,215.4	17,215.4	15,509.7	4,320.3
RUSSIA	8,401.5	9,417.8	9,417.8	7,669.7	4,313.1
NETHERLANDS	15,543.7	14,281.0	15,543.7	11,487.2	3,444.2
CHINA	8,574.1	7,212.9	8,574.1	6,221.9	3,385.2
BELGIUM	14,701.3	12,835.5	14,701.3	9,765.6	3,102.3
INDIA	3,605.2	3,038.3	3,605.2	3,911.0	3,055.5
SWITZERLAND	9,830.7	10,456.4	10,456.4	6,721.0	2,470.4
AUSTRALIA	6,423.0	6,546.8	6,546.8	5,909.3	2,333.2
BRAZIL	6,297.7	5,696.2	6,297.7	6,190.6	2,170.8
VENEZUELA	2,301.0	2,895.8	2,895.8	2,754.6	1,951.3
SPAIN	10,828.2	10,081.7	10,828.2	8,895.4	1,935.4
MEXICO	6,608.6	6,443.9	6,608.6	4,760.7	1,753.3
SWEDEN	7,177.6	6,886.7	7,177.6	5,945.1	1,614.0
ARGENTINA	3,122.0	2,507.0	3,122.0	1,994.5	1,537.1
INDONESIA	3,875.9	4,157.0	4,157.0	3,418.4	1,497.6
SOUTH AFRICA	2,416.2	2,226.7	2,416.2	2,979.6	1,365.4
NIGERIA	1,678.8	2,243.2	2,243.2	2,788.4	1,281.6
AUSTRIA	6,570.8	6,372.4	6,570.8	5,004.5	1,188.3
NORWAY	4,798.5	5,231.2	5,231.2	4,507.2	1,104.6
IRAN	2,617.2	3,284.7	3,284.7	5,659.9	1,078.5
DENMARK	4,895.0	4,551.2	4,895.0	3,988.9	1,069.9
UKRAINE	1,802.4	1,978.4	1,978.4	1,656.0	997.3
KUWAIT	2,173.0	2,917.8	2,917.8	2,669.7	995.2
POLAND	2,298.0	2,521.1	2,521.1	1,735.4	988.5
ALGERIA	1,481.0	1,826.6	1,826.6	1,853.8	914.4
FINLAND	3,098.6	3,213.7	3,213.7	2,995.1	861.8
MALAYSIA	4,498.4	4,431.4	4,498.4	3,168.7	832.7
LIBYA	1,318.2	1,633.2	1,633.2	1,872.7	817.6

Table 3 (continued). Calculated Quotas of Fund Members

(In millions of SDRs)

FUND MEMBERS (RANKED BY AGREED QUOTAS)	ELEVENTH REVIEW			TENTH REVIEW	
	BRETTON WOODS REDUCED	AVERAGE OF LOWEST TWO	CALCULATED QUOTA (HIGHER OF COL.1 & 2)	CALCULATED QUOTA	AGREED QUOTA
	(1)	(2)	(3)	(4)	(5)
KOREA	8,285.5	8,317.3	8,317.3	6,428.5	799.6
PAKISTAN	1,056.4	1,001.9	1,056.4	891.6	758.2
HUNGARY	1,465.1	1,539.5	1,539.5	1,115.8	754.8
ROMANIA	957.7	1,263.7	1,263.7	1,301.7	754.1
EGYPT	1,708.2	1,822.8	1,822.8	1,472.6	678.4
ISRAEL	2,150.3	2,037.9	2,150.3	1,819.4	666.2
NEW ZEALAND	1,295.1	1,314.9	1,314.9	1,201.9	650.1
TURKEY	3,138.0	3,027.4	3,138.0	2,464.4	642.0
PHILIPPINES	1,610.3	1,644.6	1,644.6	1,172.0	633.4
CHILE	1,310.2	1,326.3	1,326.3	1,015.7	621.7
CZECH REPUBLIC	1,171.7	1,309.3	1,309.3	1,047.0	589.6
GREECE	2,020.2	1,939.9	2,020.2	1,691.5	587.6
THAILAND	4,098.8	4,082.8	4,098.8	2,580.0	573.9
COLOMBIA	1,183.1	1,196.5	1,196.5	1,003.4	561.3
PORTUGAL	2,853.1	2,919.8	2,919.8	2,146.7	557.6
IRELAND	3,045.2	2,562.8	3,045.2	2,297.4	525.0
PERU	701.0	661.9	701.0	611.4	466.1
BULGARIA	916.3	1,136.5	1,136.5	1,451.3	464.9
MOROCCO	842.3	864.6	864.6	641.8	427.7
ZAIRE	245.4	281.3	281.3	301.1	394.8
BANGLADESH	445.7	412.6	445.7	389.2	392.5
UNITED ARAB EMIRATES	2,411.9	2,872.7	2,872.7	2,185.9	392.1
ZAMBIA	157.7	185.8	185.8	172.1	363.5
SINGAPORE	7,753.2	6,335.3	7,753.2	5,208.9	357.6
SRI LANKA	355.7	383.2	383.2	296.2	303.6
BELARUS	488.3	521.4	521.4	420.8	280.4
GHANA	158.4	165.0	165.0	153.3	274.0
CROATIA	657.9	823.7	823.7	768.3	261.6
ZIMBABWE	211.0	213.6	213.6	206.9	261.3
SLOVAK REPUBLIC	435.7	474.4	474.4	457.2	257.4
KAZAKHSTAN	606.7	654.4	654.4	344.8	247.5
TRINIDAD AND TOBAGO	255.0	330.8	330.8	344.6	246.8
VIET NAM	280.5	279.0	280.5	206.3	241.6
COTE D'IVOIRE	385.0	419.2	419.2	437.5	238.2

Table 3 (continued). Calculated Quotas of Fund Members  
(In millions of SDRs)

FUND MEMBERS (RANKED BY AGREED QUOTAS)	ELEVENTH REVIEW			TENTH REVIEW	
	BRETTON WOODS REDUCED	AVERAGE OF LOWEST TWO	CALCULATED QUOTA (HIGHER OF COL. 1 & 2)	CALCULATED QUOTA	AGREED QUOTA
	(1)	(2)	(3)	(4)	(5)
SUDAN	122.4	135.8	135.8	212.7	233.1
URUGUAY	271.7	262.8	271.7	230.4	225.3
ECUADOR	419.2	487.5	487.5	455.3	219.2
SYRIAN ARAB REPUBLIC	604.9	625.6	625.6	491.2	209.9
ANGOLA	431.4	512.5	512.5	420.2	207.3
TUNISIA	576.9	570.1	576.9	520.1	206.0
JAMAICA	263.4	240.2	263.4	216.5	200.9
UZBEKISTAN	416.1	433.6	433.6	271.1	199.5
KENYA	245.6	251.2	251.2	257.6	199.4
QATAR	438.1	556.3	556.3	563.0	190.5
MYANMAR	464.7	255.6	464.7	220.3	184.9
YEMEN, REP. OF	305.2	346.8	346.8	293.6	176.5
DOMINICAN REPUBLIC	261.4	281.1	281.1	251.8	158.8
GUATEMALA	242.5	241.4	242.5	196.7	153.8
SLOVENIA	589.3	683.0	683.0	442.0	150.5
PANAMA	294.6	338.4	338.4	497.1	149.6
TANZANIA	144.7	130.8	144.7	131.3	146.9
LEBANON	313.7	347.6	347.6	474.7	146.0
LUXEMBOURG	2,146.2	1,409.5	2,146.2	1,363.4	135.5
CAMEROON	252.5	278.3	278.3	297.6	135.1
UGANDA	67.4	68.7	68.7	69.8	133.9
BOLIVIA	130.2	140.1	140.1	129.8	126.2
EL SALVADOR	169.7	173.5	173.5	152.6	125.6
JORDAN	412.1	403.1	412.1	452.4	121.7
OMAN	642.4	789.9	789.9	701.5	119.4
COSTA RICA	259.6	277.6	277.6	215.9	119.0
SENEGAL	160.2	162.6	162.6	156.1	118.9
AZERBAIJAN	204.3	250.0	250.0	148.6	117.0
GEORGIA	76.9	86.1	86.1	149.7	111.0
GABON	291.8	367.2	367.2	320.1	110.3
LITHUANIA	232.3	278.1	278.1	138.4	103.5
CYPRUS	311.9	299.8	311.9	230.6	100.0
NAMIBIA	134.1	124.3	134.1	164.6	99.6
ETHIOPIA	121.6	133.9	133.9	142.7	98.3

Table 3 (continued). Calculated Quotas of Fund Members

(In millions of SDRs)

FUND MEMBERS (RANKED BY AGREED QUOTAS)	ELEVENTH REVIEW			TENTH REVIEW	
	BRETTON WOODS REDUCED	AVERAGE OF LOWEST TWO	CALCULATED QUOTA (HIGHER OF COL. 1 & 2)	CALCULATED QUOTA	AGREED QUOTA
	(1)	(2)	(3)	(4)	(5)
NICARAGUA	77.8	81.0	81.0	88.5	96.1
PAPUA NEW GUINEA	194.0	203.9	203.9	177.4	95.3
HONDURAS	123.3	128.7	128.7	123.3	95.0
BAHAMAS, THE	181.2	191.3	191.3	187.9	94.9
LATVIA	197.5	231.1	231.1	107.8	91.5
MADAGASCAR	75.9	75.0	75.9	73.8	90.4
MOLDOVA	150.5	166.9	166.9	106.6	90.0
ICELAND	195.7	190.4	195.7	189.7	85.3
MOZAMBIQUE	83.4	74.6	83.4	71.6	84.0
BAHRAIN	647.7	628.1	647.7	588.8	82.8
GUINEA	96.6	99.8	99.8	80.7	78.7
SIERRA LEONE	22.2	26.1	26.1	28.4	77.2
MAURITIUS	194.7	178.9	194.7	150.5	73.3
PARAGUAY	171.6	188.8	188.8	155.1	72.1
MALI	73.2	75.2	75.2	66.7	68.9
SURINAME	95.3	85.6	95.3	71.8	67.6
MALTA	278.9	216.9	278.9	201.3	67.5
ARMENIA	82.0	93.7	93.7	76.0	67.5
GUYANA	50.5	45.3	50.5	48.8	67.2
CAMBODIA	30.4	29.2	30.4	31.7	65.0
KYRGYZSTAN	135.5	156.9	156.9	72.6	64.5
HAITI	33.9	36.7	36.7	50.0	60.7
TAJIKISTAN	226.2	236.6	236.6	66.9	60.0
RWANDA	35.0	37.2	37.2	43.3	59.5
CONGO, PEOPLES REP.	176.1	220.1	220.1	205.1	57.9
BURUNDI	27.8	30.0	30.0	32.4	57.2
TOGO	62.9	66.4	66.4	82.9	54.3
NEPAL	90.6	89.9	90.6	73.2	52.0
FIJI	91.4	101.9	101.9	84.4	51.1
MALAWI	61.0	69.4	69.4	55.1	50.9
MACEDONIA, FYR	131.2	142.8	142.8	145.6	49.6
BARBADOS	84.7	99.2	99.2	119.1	48.9
NIGER	54.0	59.6	59.6	70.1	48.3
TURKMENISTAN	252.9	303.7	303.7	56.7	48.0

Table 3 (continued). Calculated Quotas of Fund Members

(In millions of SDRs)

FUND MEMBERS (RANKED BY AGREED QUOTAS)	ELEVENTH REVIEW			TENTH REVIEW	
	BRETTON WOODS REDUCED (1)	AVERAGE OF LOWEST TWO (2)	CALCULATED QUOTA (HIGHER OF COL.1 & 2) (3)	CALCULATED QUOTA (4)	AGREED QUOTA (5)
	MAURITANIA	58.3	55.3	58.3	62.6
ESTONIA	122.1	135.3	135.3	56.7	46.5
BENIN	70.2	83.0	83.0	92.3	45.3
BURKINA FASO	95.1	97.3	97.3	74.2	44.2
CHAD	39.6	41.5	41.5	44.2	41.3
CENTRAL AFRICAN REP.	32.7	33.5	33.5	35.0	41.2
LAO, P.D. REP.	26.1	25.9	26.1	20.7	39.1
MONGOLIA	102.2	101.1	102.2	71.1	37.1
BOTSWANA	326.8	340.2	340.2	320.1	36.6
SWAZILAND	101.0	91.1	101.0	81.4	36.5
ALBANIA	58.7	76.3	76.3	48.7	35.3
EQUATORIAL GUINEA	7.0	6.9	7.0	6.1	24.3
LESOTHO	94.5	85.1	94.5	68.2	23.9
GAMBIA, THE	17.6	20.3	20.3	17.8	22.9
BELIZE	26.2	25.9	26.2	22.3	13.5
VANUATU	15.8	16.6	16.6	14.4	12.5
ERITREA	17.8	14.7	17.8	7.7	11.5
DJIBOUTI	26.0	27.1	27.1	22.8	11.5
ST. LUCIA	32.2	26.5	32.2	24.8	11.0
GUINEA-BISSAU	8.9	10.1	10.1	8.0	10.5
SAN-MARINO	72.9	60.2	72.9	53.7	10.0
ANTIGUA AND BARBUDA	49.7	40.3	49.7	41.8	8.5
GRENADA	13.7	13.2	13.7	13.0	8.5
WESTERN SAMOA	11.9	11.0	11.9	10.0	8.5
SOLOMON ISLANDS	18.0	19.0	19.0	16.3	7.5
CAPE VERDE	14.7	15.6	15.6	14.0	7.0
ST. KITTIS AND NEVIS	13.5	11.9	13.5	10.7	6.5
COMOROS	8.5	9.3	9.3	9.2	6.5
DOMINICA	11.9	10.7	11.9	10.2	6.0
ST. VINCENT	16.8	17.8	17.8	14.9	6.0
SEYCHELLES	25.8	25.0	25.8	21.3	6.0
MALDIVES	21.6	17.8	21.6	16.0	5.5
SAO TOME AND PRINCIPE	3.3	3.7	3.7	4.0	5.5
TONGA	8.5	9.5	9.5	8.1	5.0

Table 3 (concluded). Calculated Quotas of Fund Members

(In millions of SDRs)

FUND MEMBERS (RANKED BY AGREED QUOTAS)	ELEVENTH REVIEW			TENTH REVIEW	
	BRETTON WOODS REDUCED (1)	AVERAGE OF LOWEST TWO (2)	CALCULATED QUOTA (HIGHER OF COL. 1 & 2) (3)	CALCULATED QUOTA (4)	AGREED QUOTA (5)
	BHUTAN	13.3	14.5	14.5	12.3
KIRIBATI	14.8	12.6	14.8	10.6	4.0
MICRONESIA	13.2	13.0	13.2	9.6	3.5
MARSHALL ISLANDS	7.8	7.4	7.8	6.6	2.5
<b>TOTAL</b>	<b>510,110.4</b>	<b>485,433.8</b>	<b>523,497.5</b>	<b>436,416.9</b>	<b>144,474.9</b>

Table 4. Actual and Calculated Size of Fund

(In billions of SDRs, except as indicated)

	Fifth Review (1969) <u>1/</u> (1)	Sixth Review (1976) <u>1/</u> (2)	Seventh Review (1978) <u>1/</u> (3)	Eighth Review (1983) <u>1/</u> (4)	Ninth Review (1990) <u>1/</u> (5)	Tenth Review (1994) <u>1/</u> (6)	Eleventh Review (7)
1. Actual size of Fund proposed as a result	28.9	39.0	60.9 <u>2/</u>	90.0	135.2	145.0	...
2. Calculated Fund:							
(i) Based on Bretton Woods formula, reduced	29.4	50.1	96.9	202.6	315.1	426.3	510.0
(ii) Based on calcu- lated quotas	30.5	52.4	101.5	209.1	330.2	440.5	523.5
3. Ratio of actual to cal- culated Fund based on calculated quotas	0.95	0.74	0.60	0.43	0.41	0.33	...
4. Ratio of Fund size to:							
(i) GDP or national income	0.019	0.015	0.014	0.012	0.012	0.009	...
(ii) Current payments	0.135	0.106	0.084	0.066	0.062	0.051	...
(iii) Reserves	0.45	0.31	0.33	0.27	0.35	0.244	...
(iv) Variability of current receipts	4.31	3.77	1.42	1.33	1.21	0.914	...

1/ Year in which the Review was completed, i.e., when the Board of Governors' Resolution giving effect to increases in quota under review was approved. The corresponding data for quota calculations are for periods that ended about two to three years prior to the completion of the Review.

2/ Including special increases for China and Saudi Arabia that were approved in 1980 and 1981, respectively.

Increases in actual quotas have lagged behind the growth of the world economy, as measured by the quota calculations, as can be seen from the fall in the ratio of actual to calculated quotas (line 3, Table 4). This ratio has fallen from 95 percent at the end of the Fifth Review in 1968 to 41 percent after the Ninth Review was concluded in 1990, to 33 percent at the end of the Tenth Review and to 28 percent in the context of the preliminary quota calculations presented in this paper. A further indication of the decline over time in the size of Fund quotas relative to the size of the world economy is the magnitude of the excess of total calculated quotas over the total of then existing actual quotas. Based on the calculated quotas presented in Table 4, this excess amounts to SDR 379 billion or 261 percent of actual quotas, as compared with excesses of SDR 295 billion (203 percent) and SDR 195 billion (144 percent) at the time of the conclusion of the Tenth and Ninth Reviews, respectively. It may be recalled that the Ninth Review broadly restored the size of the Fund, in terms of the traditional indicators (from the calculated quotas), to its level resulting from the Eighth Review. The increase in the excess of calculated quotas over actual quotas from the Tenth to the Eleventh Review reflects the decision not to increase quotas under the Tenth Review. 1/ For example, strictly in terms of these traditional calculations, if the size of the Fund was to be restored to its size at the Eighth Review an overall increase in quotas of the order of 56 percent would be called for, and to restore the size of the Fund to its size at the time of the Seventh Review (1980) an approximate doubling of present quotas would be called for. However, these calculations do not reflect the very substantial changes that have occurred in the world economy, in particular its increasing economic integration and the globalization of financial markets. 2/

## 2. Disparities between actual and calculated quotas

The difference between a member's calculated quota and its actual quota has been used in the past as an indicator of the extent to which a member's actual quota may be regarded as out of line relative to the quotas of other

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1/ In making comparisons with earlier quota calculations, account should be taken of the changes over time in the definitions of data included in the calculations and in the formulas themselves. However, the impact of changes in these factors on the overall results is judged not to be greater than 10-15 percent for calculations made prior to the Eighth General Review. The calculations made for the present Eleventh Review, as well as for the Tenth and Ninth General Reviews, are of course directly comparable with those made for the Eighth Review.

2/ See Buff/95/20, pp. 2-3, and earlier staff calculations of illustrative overall increases in quotas in EBS/95/44. As also discussed in SM/95/169, the potential needs for Fund resources in the new environment reflect the greater exposure to external shocks of members' economies because of the recent growth of capital movements and the extent of global economic integration, and these factors are not captured directly in the customary quota formulas.

members. The difference has also been used as a means of distributing increases in quotas so as to help bring the structure of actual quotas better into line with relative economic positions, as indicated by the calculated quotas.

Table 5 shows the average deviations of calculated quotas from then existing quotas at the conclusion of the last six quota reviews. 1/ The upper part of the table shows the deviations on the basis of calculated quotas for each review that have been scaled or "normalized" to sum to the total of the quotas actually agreed to in each respective quota review. These deviations between actual and calculated quotas peaked at the time of the Seventh Review, reflecting the preponderant equiproportional element in most of the quota reviews up to that time. Calculated quotas had generally played only a relatively small role in the distribution of increases in quotas, but under the Eighth Review, 60 percent of the overall increase in quotas was distributed in proportion to members' shares in calculated quotas, and, as a result, the average discrepancy between calculated quotas and agreed quotas, on a normalized basis fell to 54 percent.

Under the Ninth Review, the discrepancy widened somewhat, to 59 percent, 2/ as only 40 percent of the total increase was distributed in proportion to members' shares in calculated quotas. It is of interest to note that the average deviation between actual and calculated quotas narrowed again to 42 percent under the Tenth Review despite the absence of a quota increase in that review. As can be seen in Table 5, the narrowing of the divergence is accounted for mainly by the experience of the developing countries. The share in calculated quotas of these countries fell significantly in the Tenth Review, particularly for the major oil exporting countries and which reflected the fall in relative importance of variability in the calculations, thereby reducing a previous large excess of calculated over actual quotas (in terms of shares) for these countries.

The nonnormalized data show a similar pattern of divergence over time but they also show that the absolute size of the divergence of calculated from actual (or agreed) quotas has continued to grow. When calculated and actual quotas grow at the same rate (as was the case under the Ninth General Review), the absolute divergence between them will of course tend to increase at the same growth rate. The increase in absolute size in the

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1/ It should be noted that because members did not on all occasions consent to the maximum quota agreed by the Board of Governors, the relevant comparison is between calculated quotas and quotas that were agreed by the Board of Governors, rather than quotas consented to by members.

2/ In part this widening is due to the inclusion of new members, many of whom (especially the Baltic countries, Russia, and the other countries of the former Soviet Union) have ratios of agreed quota to calculated quota significantly above the average for the Fund membership as a whole.

Table 5. Average (Root Mean Squared) Percentage Deviations of Calculated Quotas from Quotas Agreed Under Past Quota Reviews

	Fifth Review	Sixth Review	Seventh Review	Eighth Review	Ninth Review	Tenth Review
<u>Normalized 1/</u>						
All members	33.1	59.7	76.2	54.1	59.3	41.6
Industrial countries	23.2	31.0	33.7	28.7	18.9	45.5
Major oil exporting countries	23.7	45.0	87.9	68.1	69.5	27.8
Non-oil developing countries	35.8	65.2	80.1	55.7	62.1	41.5
<u>Non-normalized 2/</u>						
All members	31.5	74.2	130.7	144.6	165.5	175.3
Industrial countries	28.7	68.7	102.7	164.6	154.3	153.9
Major oil exporting countries	23.5	46.3	204.2	266.1	283.7	149.0
Non-oil developing countries	32.8	77.9	124.5	120.7	150.6	164.9

1/ The figures shown are based on comparisons between quotas proposed as a result of the Review indicated and quotas calculated in connection with the same review, after applying a scale factor (normalizing) to the calculated quotas so that they aggregate to the same size Fund as agreed under the review.

2/ The average comparisons shown are based on quotas calculated for the given Review, without the adjustment described in footnote 1. These figures also indicate the extent to which quotas in general have lagged over time behind the calculated quotas.

divergence between calculated and agreed quotas under the Tenth Review reflects the decision to conclude that review without an increase in agreed quotas.

Table 6 shows the frequency distribution in the form of percentage differences between actual and calculated quota shares determined at the beginning of the Tenth Review and at present. 1/ While the size of Fund membership underlying the preliminary calculations for the Eleventh Review is unchanged from the Tenth Review, the number of countries involved has increased because of the disaggregation of the calculated quotas of the former Yugoslavia, former Czechoslovakia, and the former Soviet Union, which increased total membership by 18 countries.

As can be seen from Table 6, the discrepancies between shares in actual and in calculated quotas would appear to be little changed under the preliminary calculations presented in this paper compared with the disparities under the Tenth Review, which had diminished somewhat following the substantial restructuring of quotas in connection with the Eighth and Ninth Reviews. Based on the preliminary calculations, there are 48 members with quota shares that are now within plus or minus 30 percent of their calculated quota shares, compared with 51 members in such positions under the Tenth Review (and 46 members under the Ninth Review). 2/ In contrast, those members located near the top and bottom of the frequency distribution are those that are farthest from their relative economic positions as indicated by the quota calculations, and could therefore be considered as members whose quotas are most seriously out of line. There has been a small increase in the number of members whose discrepancy could be regarded as being most seriously out of line. For example, when the discrepancy between calculated and actual quotas exceeds plus 50 percent, the number of countries with out-of-line quotas rises from 13 under the Tenth Review to 16 on the basis of the preliminary Eleventh Review calculations.

Table 6 also presents the frequency distribution of disparities between calculated and actual quota shares in terms of the quota shares of member countries, classified according to the (percentage) extent of these disparities. The share of total quotas represented by countries with divergence of plus or minus 30 percent between actual and calculated quota shares has fallen to 49.2 percent in the preliminary quota calculations, from 56.6 percent at the end of the Tenth Review. This suggests that a

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1/ This form of presentation is given, as opposed to stating the absolute differences between actual and calculated quotas, because a given arithmetic difference in the calculated quota of one country from its actual quota share might be considered small (especially if it pertains to a large member), while for another country the same absolute difference might be larger, especially if the country is relatively small.

2/ For positions under the Ninth and Tenth Reviews, see EB/CQuota/94/3, (12/7/94), p. 16.

Table 6. Frequency Distribution of the Percentage Difference of Calculated and Then Existing Actual Quota Shares

Interval for Percentage Difference Between Calculated and Then Existing Quota Share	Eleventh Review		Tenth Review	
	Number of members	Existing quota shares (In percent)	Number of members	Existing quota shares (In percent)
Above 500	0	(0.0)	0	(0.0)
300 to 500	1	(0.1)	1	(0.2)
100 to 300	5	(0.9)	5	(1.3)
80 to 100	1	(0.5)	3	(0.5)
60 to 80	3	(5.8)	4	(6.4)
40 to 60	7	(12.4)	4	(5.2)
30 to 40	2	(2.6)	3	(7.2)
20 to 30	5	(5.1)	6	(3.3)
10 to 20	4	(6.9)	4	(3.6)
0 to 10	10	(10.1)	6	(15.1)
-10 to 0	4	(19.0)	11	(21.0)
-20 to -10	11	(2.4)	10	(5.8)
-30 to -20	14	(5.7)	14	(7.8)
-40 to -30	17	(4.7)	13	(2.2)
-60 to -40	39	(17.2)	37	(16.6)
-80 to -60	38	(5.6)	34	(3.3)
-100 to -80	12	(0.9)	7	(0.5)
Total for membership participating in Review	175	(100.0)	162	(100.0)
<i>Memorandum item:</i>				
<i>Average percentage difference 1/</i>		52.3		49.4

1/ Without regard to sign.

larger part of the membership now have divergences greater than 30 percent (without regard to sign), and that the overall divergence between shares in actual and calculated quotas has increased with the updating of the data through 1993. This result primarily reflects changes in the calculated quota shares of the larger members; for example, three members with relatively large quotas (Japan, Spain, and Germany) show differences in their shares in actual and calculated quotas of 50 percent or more. It is significant, however, that the members that are at the extremes of the frequency distribution continue, in general, to include mostly members with relatively small quotas.

In sum, then, the overall extent of the disparities between calculated and actual quotas has increased since the calculations were made for the Tenth Review that employed data ending in 1990. However, the number of members having shares in calculated quotas that are substantially--e.g., of the order of 50 percent or more in excess of their shares in actual quotas--has remained relatively small at 16. The total aggregate quotas of members with such relatively large excesses of shares in calculated quotas over their shares in actual quotas amounts to about 15.7 percent of total present quotas, and it would take a shift of approximately 3.5 percent of total quotas, for example, to lower the ratio of calculated to actual quota share for these members to a maximum of 1.5. It can also be seen that members with shares in calculated quotas that exceed their corresponding shares in actual quotas by 30 percent or more have total aggregate quotas amounting to 23.2 percent of total quotas and it would take a shift of about 9 percent of quotas to lower the ratio of actual to calculated quota shares to a maximum of 1.3.

### 3. Key for distribution of increases in quotas

The quota calculations have been made for all members on a consistent basis as a means of indicating their relative economic positions, or rankings, in the world economy. Such calculations, when compared with members' actual quota positions in the Fund, provide an important indicator of the possible need for adjustments in the relative size of their quotas.

As noted above, in the Eighth and Ninth Reviews, increases in quotas were determined by (i) a member's share in the total of actual quotas--the differentiated or "equiproportional" element and (ii) its share in the total of calculated quotas--the "selective" element. 1/ In the Eighth Review, 40 percent of the total quota increase was distributed equiproportionally and 60 percent of the overall increase was distributed in proportion to

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1/ In the three quota reviews prior to the Eighth Review, the absolute amount of the excess of calculated quotas over actual quotas was used as an indication of a member's eligibility for a selective increase in quota; and in some reviews the size of the selective increase for the eligible member was calculated in terms of the member's share in the total absolute excess of calculated quota over actual quotas.

members' shares in the total of calculated quotas; under the Ninth Review, the proportions were 60 percent and 40 percent, respectively. <sup>1/</sup> The method of distributing increases in quotas under the Eighth and Ninth Reviews was such that for a member with a ratio of its share in calculated quotas to its share in actual quotas that was greater than one, its share in actual quotas would increase as a result of the quota review. Conversely, the actual quota shares would decline proportionally for the members whose shares in calculated quotas were smaller than their shares in actual quotas. Members whose shares in calculated quotas were close to their shares in actual quotas experienced only marginal shifts in their shares in actual quotas.

The upper part of Table 7 shows those members (40 countries) for which the ratio of shares in calculated quotas to shares in actual quotas is greater than one; these countries collectively represent 44.6 percent of total actual quotas. Of these countries, 16 countries have ratios greater than 1.5 and could be considered as having shares in actual quotas that are significantly below those indicated by their relative economic positions; these countries account for 15.7 percent of total present quotas. Another 10 members, representing 11.9 percent of total actual quotas, have ratios between 1.2 and 1.5 and could be regarded as having actual quotas that, while not significantly out of line when measured against their shares in calculated quotas, are nevertheless not reasonably reflective of their relative positions in the world economy as measured by the quota calculations. Appendix I, Table 13 presents a comparison of the ranking of members in terms of their present and calculated quota shares. In this connection, it might be noted that there remain only a few relatively large countries amongst those with significant divergences between calculated and actual quota shares.

As noted above, increases in quotas that are based in part on members' shares in calculated quotas, such as those under the Eighth and Ninth Reviews, would reduce over time the discrepancies between calculated quota shares and actual quota shares. The size and relative distribution of these divergences suggest a continuing need to reduce such disparities as have persisted over past quota reviews. However, other considerations also

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<sup>1/</sup> It may be noted that apart from the uniform method of distributing quota increases that applied to all members, a further reallocation of the quota increases for the seven largest countries was made for the Ninth Review. The quotas for Japan and Germany were equalized with each other, at a level close to that of Germany, and a similar equalization was followed for the quotas of the United Kingdom and France, at a level somewhat below the average for these two countries based on the uniform method. The adjustments for these countries were made among the Group of Seven countries in a manner that maintained unchanged the increases in quotas of all other members as determined by the uniform method of providing an equiproportional element and a selective element.

Table 7. Eleventh Review Customary Calculated Quotas of Fund Members Ranked by Excess Over Present Quotas

	Eleventh review Customary Calculated Quotas		Present Quotas		Ratio of Calculated to Actual Quota Shares col(2)/col(4) (5)	Excess as Percent of Present Quota (6)
	(mil SDRs)	(In percent)	(mil SDRs)	(In percent)		
	(1)	(2)	(3)	(4)		
<b>A. Members with Calculated Quota Shares in Excess of Existing Quota Shares</b>						
SINGAPORE	7,753.2	1.481	357.6	0.248	5.973	2068.12
LUXEMBOURG	2,146.2	0.410	135.5	0.094	4.363	1483.88
KOREA	8,317.3	1.589	799.6	0.554	2.866	940.18
BOTSWANA	340.2	0.065	36.6	0.025	2.560	829.39
BAHRAIN	647.7	0.124	82.8	0.057	2.155	682.29
UNITED ARAB EMIRATES	2,872.7	0.549	392.1	0.272	2.018	632.64
SAN-MARINO	72.9	0.014	10.0	0.007	2.008	628.92
THAILAND	4,098.8	0.783	573.9	0.398	1.967	614.19
OMAN	789.9	0.151	119.4	0.083	1.822	561.52
JAPAN	53,947.9	10.305	8,241.5	5.715	1.803	554.59
TURKMENISTAN	303.7	0.058	48.0	0.033	1.743	532.65
ANTIGUA AND BARBUDA	49.7	0.009	8.5	0.006	1.612	485.06
IRELAND	3,045.2	0.582	525.0	0.364	1.598	480.03
SPAIN	10,828.2	2.068	1,935.4	1.342	1.541	459.48
GERMANY	45,900.2	8.768	8,241.5	5.715	1.534	456.94
AUSTRIA	6,570.8	1.255	1,188.3	0.824	1.523	452.96
MALAYSIA	4,498.4	0.859	832.7	0.577	1.488	440.22
PORTUGAL	2,919.8	0.558	557.6	0.387	1.443	423.64
ITALY	23,615.2	4.511	4,590.7	3.183	1.417	414.41
TURKEY	3,138.0	0.599	642.0	0.445	1.347	388.78
BELGIUM	14,701.3	2.808	3,102.3	2.151	1.305	373.88
NORWAY	5,231.2	0.999	1,104.6	0.766	1.305	373.58
DENMARK	4,895.0	0.935	1,069.9	0.742	1.260	357.52
SLOVENIA	683.0	0.130	150.5	0.104	1.250	353.84
NETHERLANDS	15,543.7	2.969	3,444.2	2.388	1.243	351.30
SWEDEN	7,177.6	1.371	1,614.0	1.119	1.225	344.71
SEYCHELLES	25.8	0.005	6.0	0.004	1.185	330.18
SWITZERLAND	10,456.4	1.997	2,470.4	1.713	1.166	323.27
MALTA	278.9	0.053	67.5	0.047	1.138	313.25
CANADA	17,215.4	3.289	4,320.3	2.996	1.098	298.48
LESOTHO	94.5	0.018	23.9	0.017	1.089	295.44
TAJIKISTAN	236.6	0.045	60.0	0.042	1.086	294.28
MALDIVES	21.6	0.004	5.5	0.004	1.082	292.89
FRANCE	28,401.7	5.425	7,414.6	5.141	1.055	283.05

Table 7 (continued). Eleventh Review Customary Calculated Quotas of Fund Members Ranked by Excess Over Present Quotas

	Eleventh review Customary Calculated Quotas		Present Quotas		Ratio of Calculated to Actual Quota Shares col(2)/col(4) (5)	Excess as Percent of Present Quota (6)
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	(mil SDRs) (1)	(In percent) (2)	(mil SDRs) (3)	(In percent) (4)		
CONGO, PEOPLES REP.	220.1	0.042	57.9	0.040	1.047	280.08
MEXICO	6,608.6	1.262	1,753.3	1.216	1.038	276.93
MICRONESIA	13.2	0.003	3.5	0.002	1.038	276.91
UNITED KINGDOM	27,747.4	5.300	7,414.6	5.141	1.031	274.23
FINLAND	3,213.7	0.614	861.8	0.598	1.027	272.90
KIRIBATI	14.8	0.003	4.0	0.003	1.017	269.31
 B. Members with Calculated Quota Shares Below Their Existing Quota Shares -----						
GREECE	2,020.2	0.386	587.6	0.407	0.947	243.80
JORDAN	412.1	0.079	121.7	0.084	0.933	238.58
UNITED STATES	89,628.1	17.121	26,526.8	18.394	0.931	237.88
GABON	367.2	0.070	110.3	0.076	0.917	232.95
BHUTAN	14.5	0.003	4.5	0.003	0.890	223.20
ISRAEL	2,150.3	0.411	666.2	0.462	0.889	222.78
CROATIA	823.7	0.157	261.6	0.181	0.867	214.88
CYPRUS	311.9	0.060	100.0	0.069	0.859	211.92
MARSHALL ISLANDS	7.8	0.001	2.5	0.002	0.858	211.55
IRAN	3,284.7	0.627	1,078.5	0.748	0.839	204.56
SYRIAN ARAB REPUBLIC	625.6	0.120	209.9	0.146	0.821	198.05
ST. VINCENT	17.8	0.003	6.0	0.004	0.816	196.04
KUWAIT	2,917.8	0.557	995.2	0.690	0.808	193.18
ST. LUCIA	32.2	0.006	11.0	0.008	0.806	192.57
QATAR	556.3	0.106	190.5	0.132	0.805	192.04
ESTONIA	135.3	0.026	46.5	0.032	0.802	191.01
BRAZIL	6,297.7	1.203	2,170.8	1.505	0.799	190.11
MACEDONIA, FYR	142.8	0.027	49.6	0.034	0.793	187.87
AUSTRALIA	6,546.8	1.251	2,333.2	1.618	0.773	180.59
TUNISIA	576.9	0.110	206.0	0.143	0.772	180.06
INDONESIA	4,157.0	0.794	1,497.6	1.038	0.765	177.58
SWAZILAND	101.0	0.019	36.5	0.025	0.762	176.75
MONGOLIA	102.2	0.020	37.1	0.026	0.759	175.45
EGYPT	1,822.8	0.348	678.4	0.470	0.740	168.69
LITHUANIA	278.1	0.053	103.5	0.072	0.740	168.65
MAURITIUS	194.7	0.037	73.3	0.051	0.732	165.60

Table 7 (continued). Eleventh Review Customary Calculated Quotas of Fund Members Ranked by Excess Over Present Quotas

	Eleventh review Customary Calculated Quotas		Present Quotas		Ratio of Calculated to Actual Quota Shares col(2)/col(4) (5)	Excess as Percent of Present Quota (6)
	(mil SDRs)	(In percent)	(mil SDRs)	(In percent)		
	(1)	(2)	(3)	(4)		
KAZAKHSTAN	654.4	0.125	247.5	0.172	0.728	164.42
PARAGUAY	188.8	0.036	72.1	0.050	0.721	161.88
PHILIPPINES	1,644.6	0.314	633.4	0.439	0.715	159.65
POLAND	2,521.1	0.482	988.5	0.685	0.703	155.04
SOLOMON ISLANDS	19.0	0.004	7.5	0.005	0.699	153.91
CHINA	8,574.1	1.638	3,385.2	2.347	0.698	153.28
LATVIA	231.1	0.044	91.5	0.063	0.696	152.52
MYANMAR	464.7	0.089	184.9	0.128	0.692	151.34
ANGOLA	512.5	0.098	207.3	0.144	0.681	147.22
BULGARIA	1,136.5	0.217	464.9	0.322	0.673	144.46
KYRGYZSTAN	156.9	0.030	64.5	0.045	0.670	143.21
LEBANON	347.6	0.066	146.0	0.101	0.656	138.11
DJIBOUTI	27.1	0.005	11.5	0.008	0.649	135.64
COSTA RICA	277.6	0.053	119.0	0.083	0.643	133.29
ICELAND	195.7	0.037	85.3	0.059	0.632	129.43
PANAMA	338.4	0.065	149.6	0.104	0.623	126.19
CAPE VERDE	15.6	0.003	7.0	0.005	0.616	123.55
ECUADOR	487.5	0.093	219.2	0.152	0.613	122.40
CZECH REPUBLIC	1,309.3	0.250	589.6	0.409	0.612	122.06
BURKINA FASO	97.3	0.019	44.2	0.031	0.607	120.22
RUSSIA	9,417.8	1.799	4,313.1	2.991	0.602	118.35
UZBEKISTAN	433.6	0.083	199.5	0.138	0.599	117.36
ALBANIA	76.3	0.015	35.3	0.024	0.596	116.22
PAPUA NEW GUINEA	203.9	0.039	95.3	0.066	0.589	113.96
AZERBAIJAN	250.0	0.048	117.0	0.081	0.589	113.72
CHILE	1,326.3	0.253	621.7	0.431	0.588	113.34
COLOMBIA	1,196.5	0.229	561.3	0.389	0.587	113.17
ST. KITTIS AND NEVIS	13.5	0.003	6.5	0.005	0.572	107.73
CAMEROON	278.3	0.053	135.1	0.094	0.568	106.01
HUNGARY	1,539.5	0.294	754.8	0.523	0.562	103.96
ARGENTINA	3,122.0	0.596	1,537.1	1.066	0.560	103.11
BARBADOS	99.2	0.019	48.9	0.034	0.559	102.86
NEW ZEALAND	1,314.9	0.251	650.1	0.451	0.557	102.26
MOROCCO	864.6	0.165	427.7	0.297	0.557	102.15
BAHAMAS, THE	191.3	0.037	94.9	0.066	0.555	101.58
ALGERIA	1,826.6	0.349	914.4	0.634	0.550	99.76
LIBYA	1,633.2	0.312	817.6	0.567	0.550	99.76

Table 7 (continued). Eleventh Review Customary Calculated Quotas of Fund Members Ranked by Excess Over Present Quotas

	Eleventh review Customary Calculated Quotas		Present Quotas		Ratio of Calculated to Actual Quota Shares col(2)/col(4) (5)	Excess as Percent of Present Quota (6)
	(mil SDRs)	(In percent)	(mil SDRs)	(In percent)		
	(1)	(2)	(3)	(4)		
FIJI	101.9	0.019	51.1	0.035	0.550	99.49
DOMINICA	11.9	0.002	6.0	0.004	0.548	98.85
UKRAINE	1,978.4	0.378	997.3	0.692	0.546	98.37
YEMEN, REP. OF	346.8	0.066	176.5	0.122	0.541	96.49
BELIZE	26.2	0.005	13.5	0.009	0.535	94.06
TONGA	9.5	0.002	5.0	0.003	0.525	90.47
BELARUS	521.4	0.100	280.4	0.194	0.512	85.94
MOLDOVA	166.9	0.032	90.0	0.062	0.511	85.40
SLOVAK REPUBLIC	474.4	0.091	257.4	0.178	0.508	84.32
BENIN	83.0	0.016	45.3	0.031	0.505	83.25
DOMINICAN REPUBLIC	281.1	0.054	158.8	0.110	0.488	77.03
SOUTH AFRICA	2,416.2	0.462	1,365.4	0.947	0.487	76.96
COTE D'IVOIRE	419.2	0.080	238.2	0.165	0.485	76.00
NIGERIA	2,243.2	0.429	1,281.6	0.889	0.482	75.03
NEPAL	90.6	0.017	52.0	0.036	0.480	74.32
ROMANIA	1,263.7	0.241	754.1	0.523	0.462	67.58
GRENADA	13.7	0.003	8.5	0.006	0.445	61.47
GUATEMALA	242.5	0.046	153.8	0.107	0.434	57.69
ERITREA	17.8	0.003	11.5	0.008	0.426	54.59
SAUDI ARABIA	7,751.5	1.481	5,130.6	3.558	0.416	51.08
PERU	701.0	0.134	466.1	0.323	0.414	50.40
VENEZUELA	2,895.8	0.553	1,951.3	1.353	0.409	48.40
COMOROS	9.3	0.002	6.5	0.005	0.395	43.22
SURINAME	95.3	0.018	67.6	0.047	0.389	41.04
WESTERN SAMOA	11.9	0.002	8.5	0.006	0.385	39.81
PAKISTAN	1,056.4	0.202	758.2	0.526	0.384	39.33
ARMENIA	93.7	0.018	67.5	0.047	0.382	38.77
EL SALVADOR	173.5	0.033	125.6	0.087	0.381	38.12
SENEGAL	162.6	0.031	118.9	0.082	0.377	36.76
MALAWI	69.4	0.013	50.9	0.035	0.376	36.38
ETHIOPIA	133.9	0.026	98.3	0.068	0.375	36.21
HONDURAS	128.7	0.025	95.0	0.066	0.373	35.50
NAMIBIA	134.1	0.026	99.6	0.069	0.371	34.63
TRINIDAD AND TOBAGO	330.8	0.063	246.8	0.171	0.369	34.05
VANUATU	16.6	0.003	12.5	0.009	0.366	33.01
JAMAICA	263.4	0.050	200.9	0.139	0.361	31.12
GUINEA	99.8	0.019	78.7	0.055	0.349	26.85

Table 7 (concluded). Eleventh Review Customary Calculated Quotas of Fund Members Ranked by Excess Over Present Quotas

	Eleventh review Customary Calculated Quotas		Present Quotas		Ratio of Calculated to Actual Quota Shares col(2)/col(4) (5)	Excess as Percent of Present Quota (6)
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	(mil SDRs) (1)	(In percent) (2)	(mil SDRs) (3)	(In percent) (4)		
SRI LANKA	383.2	0.073	303.6	0.211	0.348	26.21
KENYA	251.2	0.048	199.4	0.138	0.347	25.97
NIGER	59.6	0.011	48.3	0.033	0.340	23.30
MAURITANIA	58.3	0.011	47.5	0.033	0.338	22.78
TOGO	66.4	0.013	54.3	0.038	0.337	22.37
URUGUAY	271.7	0.052	225.3	0.156	0.332	20.58
INDIA	3,605.2	0.689	3,055.5	2.119	0.325	17.99
VIET NAM	280.5	0.054	241.6	0.168	0.320	16.10
BANGLADESH	445.7	0.085	392.5	0.272	0.313	13.55
BOLIVIA	140.1	0.027	126.2	0.088	0.306	11.04
MALI	75.2	0.014	68.9	0.048	0.301	9.09
CHAD	41.5	0.008	41.3	0.029	0.277	0.48
MOZAMBIQUE	83.4	0.016	84.0	0.058	0.273	-0.75
TANZANIA	144.7	0.028	146.9	0.102	0.271	-1.47
ZAIRE	281.3	0.054	291.0	0.202	0.266	-3.34
GUINEA-BISSAU	10.1	0.002	10.5	0.007	0.265	-3.72
GAMBIA, THE	20.3	0.004	22.9	0.016	0.245	-11.17
NICARAGUA	81.0	0.015	96.1	0.067	0.232	-15.68
MADAGASCAR	75.9	0.015	90.4	0.063	0.231	-16.00
ZIMBABWE	213.6	0.041	261.3	0.181	0.225	-18.25
CENTRAL AFRICAN REP.	33.5	0.006	41.2	0.029	0.224	-18.65
SUDAN	135.8	0.026	169.7	0.118	0.220	-19.97
GEORGIA	86.1	0.016	111.0	0.077	0.214	-22.46
GUYANA	50.5	0.010	67.2	0.047	0.207	-24.79
ZAMBIA	185.8	0.035	270.3	0.187	0.189	-31.26
SAO TOME AND PRINCIPE	3.7	0.001	5.5	0.004	0.188	-31.85
LAO, P.D. REP.	26.1	0.005	39.1	0.027	0.184	-33.21
RWANDA	37.2	0.007	59.5	0.041	0.172	-37.40
HAITI	36.7	0.007	60.7	0.042	0.166	-39.58
GHANA	165.0	0.032	274.0	0.190	0.166	-39.77
BURUNDI	30.0	0.006	57.2	0.040	0.144	-47.62
UGANDA	68.7	0.013	133.9	0.093	0.141	-48.68
CAMBODIA	30.4	0.006	65.0	0.045	0.129	-53.24
SIERRA LEONE	26.1	0.005	77.2	0.054	0.093	-66.19
EQUATORIAL GUINEA	7.0	0.001	24.3	0.017	0.080	-71.05
	523,497.5	100.0	144,214.5	100.0		

have a bearing on the distribution of quota increases, such as 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 or its ability to contribute to the strengthening of the Fund's liquidity position over the medium term. These considerations bear significantly on the issue of the distribution of the overall increase in quotas--i.e., the need to provide for an adequate increase for all members (the equiproportional element) and for a restructuring of quotas to bring members better into line with their relative economic positions--the differentiated element.

While the issue of the method of distributing an increase in quotas will be discussed at a later date, it is noteworthy that the extent of the divergences between members' shares in actual quotas and their corresponding shares in calculated quotas has diminished sharply as a result of the restructuring of quota shares resulting from the Eighth and Ninth Reviews. 1/ Furthermore, while a relatively large equiproportional increase, of itself, would tend to maintain the existing distribution of quotas, the size of the overall increase effectively constrains the room for effecting changes in the distribution of quotas to reflect changes in members' relative economic positions as indicated by changes in their shares in calculated quotas. As indicated above, the issue of the extent to which divergences between actual and calculated quota shares can be reduced thus needs to be looked at in the light of the size of the overall increase in quotas.

#### 4. Potential anomalies and five-year averaging of GDP

It will be recalled from SM/95/152 and the discussion at EBM/95/67 that long-run cumulative changes in real exchange rates for all Fund members are likely to reflect long-run fundamental factors, and the impact of changes in real exchange rates on the quota calculations tends to be neutral, but that for a few members with either above-average or below-average growth rates, shares in calculated quotas have moved in the opposite direction, and these movements could not otherwise be explained by changes in the other variables that enter into the quota formulas. As shown in Panel I of Table 8, between 1975 and 1993 nine members (Viet Nam, Kenya, Honduras, Nepal, China, India, Chile, Sri Lanka, and Colombia) experienced average GDP growth rates at least one percentage point above the Fund average, along with significant declines in their calculated quota shares and real exchange rate

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1/ On average, such divergences were reduced by 19.3 percent (the size of the "adjustment coefficient") in the Eighth Review and 13.3 percent in the Ninth Review. See SM/95/152, Appendix I, p. 47.

Table 8. Cumulative Percentage Changes in Shares of Selected Countries in Calculated Quotas and in Related Variables

(In percent for a constant membership)

	Cumulative Change from Sixth to Eleventh Quota Reviews						Memorandum items:		
	Calculated quotas (1)	GDP (2)	Current receipts (3)	Current payments (4)	Reserves (5)	Variability of current receipts (6)	Real GDP growth (7)	Nominal GDP in SDR (8)	Implicit change in real exchange rate against the SDR <sup>1/</sup> (9)
<i>(Annual average percentage rates 1975-93)</i>									
1. Above average growth rate in real GDP with decline in calculated quota share									
Chile	-34.2	-48.6	-17.2	-25.0	1,040.8	-73.6	5.1	6.6	-3.7
Colombia	-16.1	-19.0	-11.2	-33.6	288.8	-39.4	4.0	9.3	-0.2
Honduras	-52.9	-41.8	-55.7	-51.2	-36.1	-55.5	4.1	7.3	-2.1
India	-36.6	-37.4	-10.4	-14.4	43.9	-38.6	4.7	7.7	-2.3
Kenya	-63.3	-61.8	-61.4	-61.6	-82.3	-80.7	4.4	4.8	-4.6
Nepal	-45.3	-50.4	-8.5	-19.1	-10.9	-84.5	3.9	6.4	-2.8
Sri Lanka	-28.4	-35.1	-27.9	-31.9	330.3	-30.0	4.7	8.0	-2.1
Viet Nam	-68.7	-49.6	-71.8	-56.5	-30.8	-89.8	6.1	6.4	-4.7
Memorandum item: China	-13.4	-43.4	-3.3	-4.8	99.1	-58.3	8.4	7.1	-6.2
2. Below average growth rate in real GDP with significant increase in calculated quota share									
Gabon	29.5	40.6	-9.9	-14.6	-61.1	64.3	-0.5	12.7	7.5
Kuwait	20.6	-20.7	-40.9	-37.6	-57.4	247.1	0.2	9.2	3.5
3. Average growth rate in real GDP with significant changes in calculated quota share									
Austria	41.5	25.9	39.1	33.6	-13.9	2.6	2.4	12.0	3.9
Benin	-22.4	6.8	-42.9	-47.4	67.5	-11.5	3.1	11.0	2.2
Cameroon	-22.3	20.7	-34.0	-35.8	-83.4	10.3	2.4	11.7	3.6
Canada	-19.9	-24.2	-38.0	-32.2	-64.4	57.1	2.8	8.9	0.6
Dominican Republic	-38.5	-24.5	-28.9	-41.3	58.7	-56.8	2.9	8.9	0.4
Equatorial Guinea	-88.9	-67.3	-87.9	-77.1	-94.0	-95.0	2.4	3.9	-3.6
Guatemala	-49.8	-29.2	-52.6	-47.2	-3.6	-66.1	2.7	8.5	0.3
Malawi	-48.7	-40.5	-57.6	-57.4	-83.0	-37.1	3.1	7.4	-1.1
Myanmar	30.4	268.1	-48.5	-54.2	1.4	-81.3	3.2	18.9	9.4
Norway	29.1	5.5	-15.8	-24.2	143.4	134.1	3.1	10.9	2.2
Portugal	23.4	40.1	-2.7	7.9	20.5	-25.7	3.2	12.7	3.7
Sudan	-70.5	-57.6	-83.9	-71.0	-76.3	-66.8	2.8	5.4	-2.6
Uganda	-82.6	-68.7	-88.5	-79.2	-43.6	-88.1	2.8	3.7	-4.2
United States	-22.2	-23.4	-10.3	-0.5	8.5	71.0	2.6	9.0	0.8

<sup>1/</sup> Partially estimated using data in IFS and derived as growth in nominal GDP in SDR terms relative to growth in real GDP times an estimate of the average inflation rate for the relative period in the countries whose currencies comprise the SDR.

depreciations against the SDR. <sup>1/</sup> Five of these members (Kenya, India, China, Chile, and Colombia) were also cited as anomalous cases in SM/95/152, while another three of these members (Honduras, Nepal, and Sri Lanka) were cited previously as having near-average real GDP growth rates along with significant declines in their calculated quota shares and sharp real exchange rate depreciations.

Exchange rate appreciations could also affect a member's share in calculated quotas. Based on the updated quota calculations through 1993, there were two members--Gabon and Kuwait--that experienced a decline or significantly below-average growth in real GDP accompanied by a sharp real exchange rate appreciation and a consequent increase in their share in calculated quotas (see Panel II of Table 8).

At the discussion of SM/95/152 on July 14, 1995, some Executive Directors supported the staff's suggestion to consider on a case-by-case basis the problems that arise from the combination of above-average real GDP growth of a member along with a significant fall in its share of calculated quota over a prolonged period, which could reasonably be regarded as an important indicator that the exchange rate used for converting GDP into nominal SDR terms might need to be adjusted. Eight Fund members (i.e., Kenya, India, China, Chile, Colombia, Honduras, Nepal, and Sri Lanka) have had above-average or near-average real GDP growth along with declines in their calculated quota shares and real exchange depreciations over 1975-90 as well as over 1975-93.

It is to be noted that each of the countries listed above has a share in actual quotas that is larger, in some cases by a considerable margin, than its corresponding share in calculated quotas. In the event that the increase in quotas would be predominantly equiproportional and the realignment of quota shares would be confined to those members whose quota shares were substantially out of line, then the anomalies indicated above would have only limited operational significance for the distribution of the increase of quotas. However, in the event that the method of distributing the increases in quotas under the Eighth and Ninth Reviews were followed again in the Eleventh Review, then, as indicated at EBM/95/67 (7/14/95), these anomalies would be examined on a case-by-case basis. In this context, consideration could be given to the use of a five-year average of GDP, as indicated below, or to an ad hoc use of a real effective exchange rate for these countries based on, say, 1980, or to an ad hoc adjustment to the GDP in SDR terms based on the overall economic performance of comparable

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<sup>1/</sup> Each of the nine members experienced an average real GDP growth of at least 3.9 percent, average annual real exchange rate depreciations of between 0.2 percent and 4.7 percent against the SDR, and declines in their calculated quota shares in a range of 16.7 percent to 68.9 percent. It should be noted that data on real GDP for 22 countries among the constant group of 113 members shown in Table 8 were not available in the IFS and WEO for 1975-93.

countries. However, these issues would need to be considered in the light of the outcome of a discussion on the size and distribution of an increase in quotas.

The effects of using a five-year average of GDP on the calculated quotas of those nine members that have experienced above-average growth rates of real GDP along with real exchange rate depreciations and declines in their calculated quota shares are rather small, but on balance they tend to increase the quota shares of such countries. For eight of these members--i.e., for Chile, Colombia, Honduras, India, Kenya, Nepal, Sri Lanka, and Viet Nam--calculated quota shares increase using a five-year average measure of GDP. An exception, however, is China, whose calculated quota share declines by a cumulative 13.4 percent between the Sixth and Eleventh Reviews using a single-year value of GDP, and by 20.5 percent using a five-year average of GDP. <sup>1/</sup> While the averaging of GDP generally benefits those countries identified as anomalies, the effects on calculated quotas are marginal.

For the membership as a whole, Table 9 summarizes the illustrative calculations on the basis of averaging GDP over the five-year period 1989-1993, while Table 14 of Appendix I presents the results of calculations for individual members. As can be seen from Table 9, the shifts in the distribution of shares of calculated quotas using an average of GDP over a five-year period are rather small. The share of the industrial countries in calculated quotas falls slightly using the five-year averaging procedure. This outcome reflects the real exchange rate appreciations experienced by some of the Fund's larger members (e.g., Germany and Japan) in 1992 and 1993. The averaging of the GDP variable works to mitigate the effects of these appreciations to some extent. On balance, the use of a five-year average for GDP does not materially change the distribution of calculated quotas from those based on the traditional variables and time periods.

#### V. Summary and Conclusions

1. Using the same quota formulas and procedures that have been applied in the past three quota reviews, this paper presents preliminary quota calculations using the period ended 1993, and updates by three years the calculations made under the Tenth General Review. The paper also presents quota calculations using the GDP data that were averaged over the five-year period through 1993; such averaging parallels the averaging procedures for current account transactions in the quota calculations.

2. A substantial amount of the data used in the calculations has been estimated, reflecting the unavailability of official data for almost one third of the data used in making quota calculations. As official estimates

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<sup>1/</sup> This exception arises in large part because the cumulative effect of China's growth performance is better reflected in the most recent 1993 data.

Table 9. Summary Statistics of Alternative Quota Calculations

	Distribution of Percentage Shares		
	Industrial countries	Developing countries	Major oil exporting countries
1. Customary calculated quotas	73.2	26.8	5.9
2. GDP based on five-year averaging period	72.8	27.2	6.0
Memo: Actual quotas	60.5	39.5	10.4

or revisions of the data become available, they will be incorporated in a further set of revised calculations. In addition, for a few countries (Afghanistan, Iraq, Liberia, and Somalia) the requisite data were not available and calculations have not been made for these members. As data for these countries become available, the staff will include them in the database for making quota calculations.

3. The database reflects the unification of Germany, and individual quota calculations have now been made for the successors to the former Czechoslovakia, the former Yugoslavia, as well as for the Baltic countries, Russia, and the other countries of the former Soviet Union. For Croatia, the former Yugoslav Republic of Macedonia, and Slovenia, as well as for the Czech Republic and the Slovak Republic, the requisite data needed for the quota calculations have become available for some of the years needed to make quota calculations. For those years for which the requisite data did not exist, the data for the former Yugoslavia and the former Czechoslovakia as a whole were attributed to their successor states using the relative shares in GDP and current account transactions of the successor territories, which were employed in determining the initial quotas of the successor states. For the Baltic countries, Russia, and the other countries of the former Soviet Union, the GDP data have been estimated on the assumption that real exchange rates against the SDR have remained constant since 1990. Data on reserves and current account transactions for these countries, including estimated data which were regarded formerly as interrepublican trade, have been incorporated in the database.

4. This paper has also examined the issue of whether the conversion of GDP into SDRs through the use of market or official exchange rates for the local currency may have resulted in some distortions of members' positions in terms of their calculated quotas because exchange rate adjustments have not accurately reflected differences in relative inflation rates, particularly in the short run. The results provided in the paper indicate that there appear to be only a few cases of such undervaluation of market exchange rates that might need to be dealt with on a case-by-case basis. Eight members (Kenya, India, China, Chile, Colombia, Honduras, Nepal, and Sri Lanka) have had above-average or near-average real GDP growth but also declines in shares in calculated quotas over 1975-90 and 1975-93 that could not be readily attributed to declines in the relative size of their current account transactions, reserves, and variability of current receipts.

5. Directors have suggested the possible use of an averaging of GDP over a five-year period to help avoid abrupt shifts in relative GDP positions of countries that arise from sharp appreciations or depreciations of the real effective exchange rate against the SDR or from members' economies being in different relative cyclical positions. The calculations in this paper show that such an averaging of GDP would go some way toward smoothing the volatility of the GDP data expressed in SDRs, especially the shifts that may be attributable to cyclical developments, but the effects on the distribution of calculated quotas are essentially marginal. The averaging

procedure appears to mitigate the GDP valuation problem to only a limited extent, and it does not eliminate the effects on those members experiencing the most pronounced real exchange rate swings. As compared with the traditional calculations of using GDP for the latest data of the period covered by the calculations, the impact of averaging the GDP data over a five-year period results in a shift in the distribution of calculated quotas of 0.4 percentage point in favor of the developing countries.

6. Compared with the three most recent quota reviews, the rate of growth of the economic data used for the most recent update of the quota calculations has slowed. A major factor underlying the deceleration in growth of all the quota-formula variables, particularly since the 1980s, has been the pronounced fall in global inflation in SDR terms over this period. A slowdown in GDP growth during 1991-93 reflects the cyclical downswing experienced by many industrial countries in these years and the exchange rate depreciations (against the SDR) experienced by some of the Fund's larger members. The current account variables, however, grew faster than GDP in the present calculations than in those made in connection with the Tenth Review, reflecting in part the exchange rate depreciations of some Fund members and the effects of including estimates for interrepublican trade transactions for the Baltic countries, Russia, and the other countries of the former Soviet Union. The growth rates of reserves and the variability of current receipts declined significantly for the period ended 1993, as compared with the period ended 1990. Nevertheless, reserves grew considerably faster than the GDP variable as adjustment efforts of indebted countries continued, and also in view of the large capital inflows experienced by some of the fast-growing developing countries and, for the industrial countries, the rise reflected the counterpart to large scale official intervention in the foreign exchange markets. The relatively low level of variability is attributable in part to the stability of prices of petroleum and of some other commodities, and also because the calculation now excludes the large 1979 increase in petroleum prices which had formerly heavily influenced the variable.

7. The quota calculations presented in this paper provide a measure of the overall growth of the world economy since the previous quota calculations, and the change in the aggregate of the calculations have a bearing on the issue of the overall increase in Fund quotas under the Eleventh Review that would keep the size of the Fund in some reasonable relationship with the growth of the world economy. Calculated quotas for the Fund membership as a whole rose by 20 percent in the three years ending in 1993. The increase in aggregate quotas since the Ninth Review was completed in 1990 (using data ended in 1985) and when quotas were last adjusted, amounts to close to 60 percent. The ratio of actual quotas to calculated quotas has fallen steadily since the Fifth Review, from 95 percent at the time of that review in 1968 to 33 percent at the end of the Tenth Review and would fall to about 27 percent based on the Eleventh Review calculations presented in this paper, if there were again to be no increase in quotas. A further indication of the long-run decline in the size of Fund quotas relative

to the size of the world economy is the size of the excess of total calculated over the total of then existing Fund quotas, which has risen from SDR 240 billion at the time of the Ninth Review to SDR 385 billion in the latest calculations.

8. The calculations presented in this paper would seem to suggest that a substantial increase in quotas would be warranted in the context of the Eleventh Review in order to reflect the growth of the world economy since the last occasion when quotas were adjusted. The data would suggest 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 its level at the time of the Eighth Review in 1983. However, consideration of the effects of the increasing integration of the world economy and globalization of capital markets, as well as of the continued projected expansion of the world economy in the remaining years of the Eleventh Review period, would suggest a further increase in quotas beyond the increase calculated in this paper. The issues bearing on the size of an increase in quotas will be considered in a paper to be issued in due course.

9. The quota calculations are an important indicator of individual members' relative importance, or ranking, in the world economy. The individual disparities between members' shares in actual and in calculated quotas that have arisen or persisted since the last increase in quotas that was agreed under the Ninth Review are significant as an indication of the extent to which a member's relative position in the Fund can be regarded as out of line. The quota calculations can therefore be useful as a guide for the distribution of any selective increases in quotas that might be agreed, as in past quota reviews.

10. The overall extent of the disparities between calculated and actual quotas has increased since the Tenth Review on the basis of the preliminary calculations presented in this paper. However, the number of members having shares in calculated quotas that are substantially in excess of their shares in actual quotas (e.g., by 50 percent or more) has remained relatively small at 16. The size and distribution of these disparities suggest a continuing need for part of an overall increase in quotas to be devoted to reducing the disparities that have persisted over a number of past quota reviews, bearing in mind the need to maintain a reasonable balance in the overall quota structure, including the distribution of voting power in the Fund, and also that the overall increase in quotas would not only better reflect the relative economic positions of members but also that the size of the individual quota increases be meaningful in terms of both members' potential need for Fund resources and strengthening the Fund's liquidity position over the medium term.

11. In the light of the calculations summarized above, the Executive Directors may wish to comment on the following:

a. Are Directors satisfied that the preliminary calculations presented above are a reasonable basis upon which to consider the issues bearing on an increase in quotas, despite the very large amount of staff estimation of the data?

b. Are Directors broadly satisfied that the application of the present quota formulas to the updated data presented in this paper continues to provide reasonable indicators of the relative economic position of members and that the quota formulas are, therefore, working as intended?

c. Are Directors of the view that the size and distribution of the divergences between members' shares in actual and calculated quotas provide a basis for a continuing need to provide for some differentiation in the size of individual increases in quotas under the Eleventh Review bearing in mind the importance of taking into account other--more qualitative--considerations?

d. Are Directors of the view that the increase in the total of calculated quotas, since the last adjustment of quotas in 1990, provides a reasonable indicator of the need for an overall increase in quotas under the Eleventh Review in the context of consideration of other factors bearing on the size and role of the Fund in the world economy?

Table 10. Data Used in Quota Calculations

(In millions of SDRs)

FUND MEMBERS (RANKED BY AGREED QUOTAS)	9TH REVIEW AGREED QUOTAS	GROSS	TOTAL	CURRENT	CURRENTS	VARIABILITY
		DOMESTIC	RESREVES	RECEIPTS	PAYMENTS	OF CURRENT
		PRODUCT (1993)	MONTHLY AVG (1993)	(1989-93)	(1989-93)	RECEIPTS (1981-93)
UNITED STATES	26,526.8	4,542,837.3	54,461.0	509,980.0	557,660.0	25,962.4
GERMANY	8,241.5	1,368,332.6	59,448.2	378,312.6	354,664.7	13,120.4
JAPAN	8,241.5	3,019,080.5	63,495.8	346,789.1	284,399.4	10,507.0
UNITED KINGDOM	7,414.6	678,511.8	27,569.0	209,991.9	220,297.0	9,018.9
FRANCE	7,414.6	897,386.8	24,137.5	236,255.2	233,487.3	5,408.7
SAUDI ARABIA	5,130.6	87,931.6	4,941.9	39,517.7	48,745.5	4,773.5
ITALY	4,590.7	705,461.2	22,387.1	180,356.7	180,478.9	8,002.9
CANADA	4,320.3	395,705.5	8,664.9	115,373.5	131,751.1	7,027.1
RUSSIA	4,313.1	265,599.0	4,753.2	56,317.3	54,190.3	6,359.4
NETHERLANDS	3,444.2	220,860.0	21,649.8	130,891.4	124,694.6	3,405.6
CHINA	3,385.2	428,993.7	15,471.5	51,827.6	50,178.3	2,039.9
BELGIUM	3,102.3	150,804.7	10,014.0	117,666.4	112,969.6	3,739.5
INDIA	3,055.5	179,828.6	5,583.6	19,612.2	22,759.8	768.2
SWITZERLAND	2,470.4	166,284.6	25,162.1	79,212.5	70,764.3	3,640.7
AUSTRALIA	2,333.2	202,450.9	8,000.7	42,240.4	51,147.3	2,338.7
BRAZIL	2,170.8	312,830.8	17,656.4	29,459.9	29,564.5	3,109.7
VENEZUELA	1,951.3	42,966.2	6,824.4	13,519.9	12,547.6	2,296.0
SPAIN	1,935.4	342,750.0	30,910.4	73,186.0	86,600.1	1,725.1
MEXICO	1,753.3	259,189.2	16,572.4	32,959.1	43,935.5	2,900.3
SWEDEN	1,614.0	132,688.8	14,935.0	55,997.6	59,558.6	1,622.3
ARGENTINA	1,537.1	183,047.0	8,162.9	10,994.8	13,762.2	977.2
INDONESIA	1,497.6	113,157.9	8,041.8	25,206.9	27,515.4	2,027.3
SOUTH AFRICA	1,365.4	84,061.9	680.2	20,592.3	19,320.6	514.7
NIGERIA	1,281.6	22,625.0	884.3	9,497.8	9,359.8	2,047.8
AUSTRIA	1,188.3	130,389.9	9,996.0	54,543.1	54,459.2	1,564.5
NORWAY	1,104.6	74,060.1	13,150.5	35,847.4	33,741.5	2,095.6
IRAN	1,078.5	54,873.8	207.7	15,041.9	18,146.8	2,604.8
DENMARK	1,069.9	96,444.8	7,335.0	44,171.1	40,622.6	783.9
UKRAINE	997.3	61,098.7	3.6	11,519.6	12,186.9	1,300.8
KUWAIT	995.2	16,070.0	3,055.6	11,313.4	7,962.8	2,812.0
POLAND	988.5	61,733.3	2,606.5	15,875.3	17,421.5	1,205.3
ALGERIA	914.4	36,068.0	1,512.7	9,444.2	9,113.0	1,404.1
FINLAND	861.8	60,237.6	3,789.4	22,608.7	25,788.1	1,170.7
MALAYSIA	832.7	46,144.9	13,804.7	29,786.3	31,158.5	1,622.5
LIBYA	817.6	27,657.7	3,974.8	7,598.8	7,453.0	1,254.4
KOREA	799.6	238,354.4	13,761.8	64,137.4	65,483.1	2,315.3

Table 10 (continued). Data Used in Quota Calculations

(In millions of SDRs)

FUND MEMBERS (RANKED BY AGREED QUOTAS)	9TH REVIEW AGREED QUOTAS	GROSS	TOTAL	CURRENT	CURRENTS	VARIABILITY
		DOMESTIC PRODUCT (1993)	RESREVES MONTHLY AVG (1993)	RECEIPTS (1989-93)	PAYMENTS (1989-93)	OF CURRENT RECEIPTS (1981-93)
PAKISTAN	758.2	37,032.2	448.5	6,904.7	8,825.6	296.9
HUNGARY	754.8	25,863.5	3,881.3	10,805.3	11,164.0	525.0
ROMANIA	754.1	18,593.8	708.8	5,089.3	5,741.5	1,147.4
EGYPT	678.4	29,626.4	8,526.3	10,914.6	11,767.8	661.1
ISRAEL	666.2	46,581.6	4,082.3	15,880.2	18,697.8	443.2
NEW ZEALAND	650.1	30,835.2	2,425.3	9,862.2	10,527.6	377.4
TURKEY	642.0	124,731.4	5,102.5	18,301.5	21,410.6	1,278.8
PHILIPPINES	633.4	38,951.9	3,557.7	11,465.7	13,106.3	484.7
CHILE	621.7	32,683.9	7,115.9	8,444.3	9,221.8	331.3
CZECH REPUBLIC	589.6	22,370.0	2,826.7	8,454.4	8,293.5	620.8
GREECE	587.6	64,381.0	4,266.8	12,517.8	16,649.2	476.2
THAILAND	573.9	89,677.8	16,483.1	27,836.1	32,337.8	888.1
COLOMBIA	561.3	35,229.5	5,569.0	7,674.5	7,567.1	446.5
PORTUGAL	557.6	61,025.3	12,854.4	19,822.0	21,138.5	725.2
IRELAND	525.0	33,933.9	4,370.6	24,938.6	23,936.1	482.5
PERU	466.1	29,405.9	2,333.7	3,219.5	4,268.8	289.9
BULGARIA	464.9	7,758.6	679.5	4,730.6	5,533.8	869.7
MOROCCO	427.7	19,077.0	2,457.8	6,101.7	6,624.5	240.6
ZAIRE	394.8	4,763.9	102.7	1,392.0	2,082.1	156.4
BANGLADESH	392.5	17,155.8	1,555.4	2,388.1	3,124.1	108.0
UNITED ARAB EMIRATES	392.1	25,205.0	4,371.0	16,885.0	13,135.4	1,872.8
ZAMBIA	363.5	2,471.9	137.7	899.3	1,230.4	114.0
SINGAPORE	357.6	40,931.3	31,888.4	44,892.4	41,300.8	1,872.2
SRI LANKA	303.6	7,406.7	896.2	2,371.2	2,780.7	149.1
BELARUS	280.4	18,471.7	40.8	3,203.2	2,961.8	361.7
GHANA	274.0	4,357.3	234.7	949.9	1,337.1	60.4
CROATIA	261.6	7,938.0	283.9	4,028.0	4,154.0	625.2
ZIMBABWE	261.3	3,984.7	294.4	1,496.6	1,794.1	72.5
SLOVAK REPUBLIC	257.4	7,920.0	348.0	3,367.3	3,427.9	203.9
KAZAKHSTAN	247.5	20,439.1	416.1	3,475.0	4,289.3	392.4
TRINIDAD AND TOBAGO	246.8	3,330.2	117.9	1,546.6	1,491.0	278.4
VIET NAM	241.6	9,191.6	738.0	1,895.5	1,994.4	98.7
COTE D'IVOIRE	238.2	6,680.2	6.6	2,489.9	3,338.2	204.8
SUDAN	233.1	4,049.4	33.6	461.9	972.3	87.5
URUGUAY	225.3	9,634.3	568.5	1,910.7	1,927.5	86.9
ECUADOR	219.2	10,244.1	771.7	2,492.3	2,911.2	307.0
SYRIAN ARAB REPUBLIC	209.9	25,426.0	287.6	3,677.2	3,271.4	454.5

Table 10 (continued). Data Used in Quota Calculations

(In millions of SDRs)

FUND MEMBERS (RANKED BY AGREED QUOTAS)	9TH REVIEW AGREED QUOTAS	GROSS DOMESTIC PRODUCT (1993)	TOTAL RESERVEES MONTHLY AVG (1993)	CURRENT RECEIPTS (1989-93)	CURRENTS PAYMENTS (1989-93)	VARIABILITY OF CURRENT RECEIPTS (1981-93)
ANGOLA	207.3	4,759.4	198.0	2,604.4	3,044.7	325.4
TUNISIA	206.0	10,480.1	449.2	4,404.3	4,958.4	185.7
JAMAICA	200.9	2,749.6	230.3	1,846.1	2,103.1	84.3
UZBEKISTAN	199.5	15,302.0	731.9	2,326.4	2,601.4	262.7
KENYA	199.4	3,952.2	141.3	1,746.5	2,086.7	100.9
QATAR	190.5	5,125.3	513.9	2,662.9	2,460.1	444.6
MYANMAR	184.9	39,852.4	219.4	603.4	832.6	53.4
YEMEN, REP. OF	176.5	9,035.0	149.4	1,814.7	2,178.7	224.8
DOMINICAN REPUBLIC	158.8	6,810.4	378.9	1,836.4	2,037.4	116.3
GUATEMALA	153.8	8,099.4	551.3	1,468.9	1,826.1	84.4
SLOVENIA	150.5	9,075.0	522.0	4,565.4	4,061.4	374.4
PANAMA	149.6	4,701.5	406.4	1,985.8	2,167.5	182.7
TANZANIA	146.9	1,699.6	222.6	762.3	1,359.5	41.2
LEBANON	146.0	5,396.6	1,315.8	1,116.2	2,719.4	163.2
LUXEMBOURG	135.5	7,470.0	61.1	13,012.7	11,685.2	536.9
CAMEROON	135.1	7,440.5	19.3	1,638.4	1,961.3	149.2
UGANDA	133.9	2,460.1	89.0	270.7	531.3	32.2
BOLIVIA	126.2	3,854.2	146.3	686.3	1,056.3	68.1
EL SALVADOR	125.6	4,980.0	369.7	1,077.0	1,357.7	55.5
JORDAN	121.7	4,013.1	591.9	2,484.0	3,188.5	176.5
OMAN	119.4	8,369.0	988.9	3,942.4	3,975.9	568.8
COSTA RICA	119.0	5,426.7	696.3	1,777.1	2,012.8	102.0
SENEGAL	118.9	4,012.8	8.8	1,082.3	1,441.8	60.3
AZERBAIJAN	117.0	4,590.6	.2	1,571.8	1,318.2	177.5
GEORGIA	111.0	2,076.7	1.4	424.8	642.3	48.0
GABON	110.3	3,860.8	28.1	1,843.5	1,882.7	281.3
LITHUANIA	103.5	5,246.4	242.1	1,649.1	1,516.3	186.2
CYPRUS	100.0	5,006.3	732.1	2,349.5	2,527.1	77.2
NAMIBIA	99.6	1,834.9	57.7	1,009.3	1,154.9	39.4
ETHIOPIA	98.3	3,732.2	246.0	596.5	862.3	80.4
NICARAGUA	96.1	1,409.9	34.9	265.7	834.8	38.4
PAPUA NEW GUINEA	95.3	3,672.4	101.7	1,448.8	1,624.5	81.9
HONDURAS	95.0	2,492.7	93.7	823.2	1,075.4	51.2
BAHAMAS, THE	94.9	2,321.4	158.3	1,305.2	1,373.6	88.4
LATVIA	91.5	4,590.6	242.8	1,281.2	1,389.5	144.7
MADAGASCAR	90.4	2,414.0	64.5	432.9	658.1	25.2
MOLDOVA	90.0	4,918.5	55.1	979.4	996.3	110.6

Table 10 (continued). Data Used in Quota Calculations

(In millions of SDRs)

FUND MEMBERS (RANKED BY AGREED QUOTAS)	9TH REVIEW AGREED QUOTAS	GROSS DOMESTIC PRODUCT (1993)	TOTAL RESREVES MONTHLY AVG (1993)	CURRENT RECEIPTS (1989-93)	CURRENTS PAYMENTS (1989-93)	VARIABILITY OF CURRENT RECEIPTS (1981-93)
ICELAND	85.3	4,353.5	323.1	1,524.1	1,654.6	46.6
MOZAMBIQUE	84.0	1,009.9	156.5	321.4	884.3	22.0
BAHRAIN	82.8	3,256.8	941.1	3,255.0	3,653.1	374.4
GUINEA	78.7	2,274.8	136.1	626.0	831.5	35.4
SIERRA LEONE	77.2	532.4	17.7	149.3	156.4	16.6
MAURITIUS	73.3	2,229.0	574.5	1,397.8	1,452.7	45.5
PARAGUAY	72.1	4,923.3	414.1	1,008.7	1,176.2	105.7
MALI	68.9	1,906.5	224.1	365.1	624.0	24.3
SURINAME	67.6	351.8	7.8	471.2	480.5	57.2
MALTA	67.5	1,758.5	937.5	1,726.5	1,789.3	45.1
ARMENIA	67.5	1,858.1	1.4	471.5	693.6	53.2
GUYANA	67.2	306.7	149.7	247.9	337.9	18.7
CAMBODIA	65.0	1,468.3	26.4	90.1	182.9	18.2
KYRGYZSTAN	64.5	3,060.4	44.4	831.0	1,069.4	93.8
HAITI	60.7	1,097.7	29.3	182.9	253.0	20.7
TAJIKISTAN	60.0	1,967.4	.0	1,222.3	1,769.4	138.0
RWANDA	59.5	1,061.0	45.8	120.2	309.6	18.5
CONGO, PEOPLES REP.	57.9	1,917.9	6.9	945.4	1,211.4	167.2
BURUNDI	57.2	675.0	116.7	91.1	235.4	13.6
TOGO	54.3	955.0	148.2	386.4	509.2	26.8
NEPAL	52.0	2,693.0	407.3	474.8	693.0	23.3
FIJI	51.1	1,179.9	191.0	657.7	621.9	48.5
MALAWI	50.9	1,444.7	23.3	322.4	515.6	39.8
MACEDONIA, FYR	49.6	2,063.0	76.0	953.6	1,040.8	66.7
BARBADOS	48.9	1,168.1	109.9	598.8	566.4	58.2
NIGER	48.3	1,590.1	144.7	257.8	378.6	35.0
TURKMENISTAN	48.0	3,716.2	564.3	1,764.9	1,497.4	199.3
MAURITANIA	47.5	675.8	30.2	368.9	504.3	22.0
ESTONIA	46.5	3,825.5	207.7	785.1	753.6	88.7
BENIN	45.3	1,522.3	166.8	387.9	481.0	54.8
BURKINA FASO	44.2	2,811.4	269.3	449.2	785.1	34.6
CHAD	41.3	814.3	48.1	174.1	383.4	18.0
CENTRAL AFRICAN REP.	41.2	896.7	79.4	148.8	288.1	11.8
LAO, P.D. REP.	39.1	949.7	11.0	130.7	218.2	10.0
MONGOLIA	37.1	444.4	27.5	370.7	698.6	68.8
BOTSWANA	36.6	3,883.4	2,982.8	1,756.7	1,713.6	114.1

Table 10 (concluded). Data Used in Quota Calculations

(In millions of SDRs)

FUND MEMBERS (RANKED BY AGREED QUOTAS)	9TH REVIEW AGREED QUOTAS	GROSS DOMESTIC PRODUCT (1993)	TOTAL RESREVES MONTHLY AVG (1993)	CURRENT RECEIPTS (1989-93)	CURRENTS PAYMENTS (1989-93)	VARIABILITY OF CURRENT RECEIPTS (1981-93)
SWAZILAND	36.5	743.4	200.2	626.2	683.2	36.1
ALBANIA	35.3	792.9	100.3	225.2	408.4	65.4
EQUATORIAL GUINEA	24.3	112.0	2.1	35.7	70.4	2.8
LESOTHO	23.9	542.6	152.6	504.0	607.9	41.1
GAMBIA, THE	22.9	258.0	75.1	71.6	134.0	11.6
BELIZE	13.5	375.2	32.7	187.2	215.7	9.3
VANUATU	12.5	133.2	33.5	82.4	112.5	8.7
ERITREA	11.5	635.9	62.3	123.3	139.5	0.0
DJIBOUTI	11.5	334.0	54.9	136.5	221.0	11.8
ST. LUCIA	11.0	355.0	40.0	227.4	277.2	5.3
GUINEA-BISSAU	10.5	173.0	11.4	27.9	88.9	5.4
SAN-MARINO	10.0	609.4	129.5	551.7	511.9	14.6
ANTIGUA AND BARBUDA	8.5	326.3	30.0	329.4	348.3	14.6
GRENADA	8.5	190.1	19.3	99.2	113.3	4.3
WESTERN SAMOA	8.5	86.7	39.0	61.3	82.8	4.3
SOLOMON ISLANDS	7.5	183.8	15.3	99.9	143.2	10.1
CAPE VERDE	7.0	304.6	47.3	82.8	119.5	5.9
ST. KITTIS AND NEVIS	6.5	141.5	20.3	88.7	111.3	3.6
COMOROS	6.5	179.6	21.7	42.2	71.0	4.3
DOMINICA	6.0	143.6	14.3	79.2	103.8	3.1
ST. VINCENT	6.0	168.6	22.0	98.2	126.0	9.2
SEYCHELLES	6.0	323.9	21.6	188.5	208.4	9.3
MALDIVES	5.5	162.3	25.1	141.4	160.4	5.6
SAO TOME AND PRINCIPE	5.5	28.1	12.1	8.1	30.7	2.0
TONGA	5.0	102.8	24.4	53.8	58.1	4.6
BHUTAN	4.5	171.1	61.9	66.2	96.8	6.4
KIRIBATI	4.0	26.5	209.9	24.0	33.7	2.4
MICRONESIA	3.5	141.5	96.4	39.0	117.0	2.9
MARSHALL ISLANDS	2.5	60.8	19.8	30.1	67.7	3.2
TOTAL	144,474.9	16,981,560.0	686,685.8	3,521,493.6	3,573,605.4	169,925.9

Table 11. Calculated Quotas of Fund Members

(In millions of SDRs)

FUND MEMBERS (RANKED BY AGREED QUOTAS)	AGREED QUOTAS (1)	BRETTON				
		WOODS REDUCED (2)	SCHEME III (3)	SCHEME IV (4)	SCHEME M4 (5)	SCHEME M7 (6)
UNITED STATES	26,526.8	89,628.1	79,602.5	74,327.0	84,122.3	82,856.1
GERMANY	8,241.5	45,811.4	46,500.1	45,376.3	47,203.1	46,424.1
JAPAN	8,241.5	53,947.9	44,640.1	40,230.2	48,786.7	47,275.8
UNITED KINGDOM	7,414.6	26,899.4	28,574.2	28,413.3	27,859.3	27,635.6
FRANCE	7,414.6	28,401.7	28,546.3	26,371.1	27,563.0	26,353.9
SAUDI ARABIA	5,130.6	6,560.9	7,852.9	9,111.5	7,650.1	8,172.7
ITALY	4,590.7	23,179.1	23,739.0	23,491.3	24,277.3	24,105.9
CANADA	4,320.3	15,964.5	17,331.0	17,719.8	17,140.6	17,290.2
RUSSIA	4,313.1	8,401.5	8,839.6	9,996.0	10,509.1	11,153.7
NETHERLANDS	3,444.2	15,543.7	17,482.9	17,203.2	14,466.7	14,095.3
CHINA	3,385.2	8,574.1	7,434.0	6,991.8	8,074.1	7,970.3
BELGIUM	3,102.3	14,701.3	17,325.2	17,286.9	12,975.0	12,696.0
INDIA	3,055.5	3,605.2	3,159.4	2,917.2	3,269.8	3,203.0
SWITZERLAND	2,470.4	9,830.7	10,722.7	11,469.5	10,358.5	10,554.2
AUSTRALIA	2,333.2	6,423.0	6,556.5	6,537.1	6,656.8	6,675.4
BRAZIL	2,170.8	6,297.7	5,514.1	5,878.2	6,739.5	7,099.2
VENEZUELA	1,951.3	2,301.0	2,587.5	3,343.5	3,204.1	3,569.8
SPAIN	1,935.4	10,828.2	10,582.2	10,075.7	10,319.9	10,087.8
MEXICO	1,753.3	6,608.6	6,314.2	6,573.5	7,006.5	7,261.1
SWEDEN	1,614.0	7,177.6	7,779.6	7,683.8	6,945.5	6,828.0
ARGENTINA	1,537.1	3,122.0	2,533.0	2,481.0	2,842.9	2,916.4
INDONESIA	1,497.6	3,875.9	3,998.3	4,315.8	4,417.1	4,595.6
SOUTH AFRICA	1,365.4	2,416.2	2,395.2	2,195.9	2,366.3	2,257.5
NIGERIA	1,281.6	1,678.8	2,070.4	2,753.5	2,416.1	2,718.8
AUSTRIA	1,188.3	6,570.8	7,114.9	6,961.7	6,445.3	6,299.5
NORWAY	1,104.6	4,798.5	5,309.2	5,859.8	5,153.2	5,336.3
IRAN	1,078.5	2,617.2	3,050.0	3,684.3	3,519.3	3,843.5
DENMARK	1,069.9	4,895.0	5,254.8	4,976.1	4,649.9	4,452.5
UKRAINE	997.3	1,802.4	1,883.7	2,073.1	2,186.8	2,301.6
KUWAIT	995.2	2,173.0	2,776.7	4,066.2	3,058.8	3,527.8
POLAND	988.5	2,298.0	2,446.4	2,601.7	2,595.8	2,674.9
ALGERIA	914.4	1,481.0	1,648.2	2,005.0	2,005.7	2,188.1
FINLAND	861.8	3,098.6	3,435.6	3,520.4	3,204.7	3,222.7
MALAYSIA	832.7	4,498.4	5,106.2	5,627.8	4,356.3	4,506.5
LIBYA	817.6	1,318.2	1,455.8	1,844.6	1,810.7	2,007.5
KOREA	799.6	8,285.5	8,450.9	8,289.7	8,450.8	8,344.9
PAKISTAN	758.2	1,056.4	1,061.7	1,001.4	1,027.5	1,002.4

Table 11 (continued). Calculated Quotas of Fund Members

(In millions of SDRs)

FUND MEMBERS (RANKED BY AGREED QUOTAS)	AGREED QUOTAS (1)	BRETTON				
		WOODS REDUCED (2)	SCHEME III- (3)	SCHEME IV (4)	SCHEME M4 (5)	SCHEME M7 (6)
HUNGARY	754.8	1,465.1	1,595.5	1,687.6	1,525.3	1,553.6
ROMANIA	754.1	957.7	1,128.6	1,456.9	1,398.9	1,566.8
EGYPT	678.4	1,708.2	1,796.7	2,015.5	1,848.8	1,942.5
ISRAEL	666.2	2,150.3	2,294.8	2,217.2	2,062.8	2,013.0
NEW ZEALAND	650.1	1,295.1	1,365.9	1,362.9	1,319.2	1,310.5
TURKEY	642.0	3,138.0	3,008.5	3,046.2	3,282.0	3,343.0
PHILIPPINES	633.4	1,610.3	1,690.3	1,701.0	1,644.4	1,644.8
CHILE	621.7	1,310.2	1,289.2	1,365.6	1,363.4	1,402.0
CZECH REPUBLIC	589.6	1,171.7	1,283.4	1,432.5	1,335.1	1,396.0
GREECE	587.6	2,020.2	2,017.0	1,944.9	1,960.7	1,934.9
THAILAND	573.9	4,098.8	4,212.9	4,285.9	4,072.1	4,093.5
COLOMBIA	561.3	1,183.1	1,147.2	1,245.8	1,306.7	1,361.9
PORTUGAL	557.6	2,853.1	2,915.1	3,053.0	2,924.5	2,977.4
IRELAND	525.0	3,045.2	3,479.8	3,367.8	2,611.4	2,514.3
PERU	466.1	701.0	646.6	677.2	734.0	765.2
BULGARIA	464.9	916.3	1,154.5	1,474.4	1,118.5	1,240.8
MOROCCO	427.7	842.3	879.9	897.9	862.3	866.9
ZAIRE	394.8	245.4	282.7	308.6	279.8	293.0
BANGLADESH	392.5	445.7	414.9	410.2	434.9	438.4
UNITED ARAB EMIRATES	392.1	2,411.9	2,875.4	3,617.6	2,870.0	3,122.6
ZAMBIA	363.5	157.7	185.7	212.6	186.0	198.4
SINGAPORE	357.6	7,753.2	8,685.5	9,890.7	6,204.4	6,466.1
SRI LANKA	303.6	355.7	383.7	408.3	382.6	393.5
BELARUS	280.4	488.3	494.5	548.3	599.4	632.9
GHANA	274.0	158.4	166.7	168.5	164.2	165.9
CROATIA	261.6	657.9	808.9	1,011.0	838.6	920.0
ZIMBABWE	261.3	211.0	234.0	237.5	213.5	213.8
SLOVAK REPUBLIC	257.4	435.7	492.3	520.7	470.2	478.7
KAZAKHSTAN	247.5	606.7	628.0	680.9	708.7	743.7
TRINIDAD AND TOBAGO	246.8	255.0	313.4	405.7	348.3	387.2
VIET NAM	241.6	280.5	275.8	282.3	297.0	301.6
COTE D'IVOIRE	238.2	385.0	449.0	474.1	414.1	424.3
SUDAN	233.1	122.4	130.2	141.4	141.7	150.5
URUGUAY	225.3	271.7	263.2	262.4	281.6	282.4
ECUADOR	219.2	419.2	456.0	525.7	519.0	556.2
SYRIAN ARAB REPUBLIC	209.9	604.9	590.7	660.5	740.5	787.5
ANGOLA	207.3	431.4	528.8	624.4	496.1	532.6

Table 11 (continued). Calculated Quotas of Fund Members

(In millions of SDRs)

FUND MEMBERS (RANKED BY AGREED QUOTAS)	AGREED QUOTAS (1)	BRETTON				
		WOODS REDUCED (2)	SCHEME III (3)	SCHEME IV (4)	SCHEME M4 (5)	SCHEME M7 (6)
TUNISIA	206.0	576.9	647.5	645.3	573.3	566.9
JAMAICA	200.9	263.4	312.0	319.6	240.4	239.9
UZBEKISTAN	199.5	416.1	412.7	454.5	488.2	516.5
KENYA	199.4	245.6	283.1	291.8	250.3	252.1
QATAR	190.5	438.1	534.2	693.9	578.4	642.6
MYANMAR	184.9	464.7	300.4	238.9	284.0	272.4
YEMEN, REP. OF	176.5	305.2	327.7	365.9	372.6	395.0
DOMINICAN REPUBLIC	158.8	261.4	277.0	288.6	285.3	290.8
GUATEMALA	153.8	242.5	240.3	242.6	250.8	254.0
SLOVENIA	150.5	589.3	683.8	780.1	682.2	716.0
PANAMA	149.6	294.6	339.1	383.7	337.7	355.8
TANZANIA	146.9	144.7	169.4	169.9	130.8	130.7
LEBANON	146.0	313.7	347.2	387.0	348.1	372.3
LUXEMBOURG	135.5	2,146.2	2,732.4	2,846.2	1,414.5	1,404.5
CAMEROON	135.1	252.5	270.4	286.2	288.3	297.5
UGANDA	133.9	67.4	67.8	69.6	70.3	72.6
BOLIVIA	126.2	130.2	137.5	144.2	142.8	147.7
EL SALVADOR	125.6	169.7	173.1	173.9	174.2	175.3
JORDAN	121.7	412.1	490.5	530.6	397.0	409.3
OMAN	119.4	642.4	765.1	954.7	814.6	893.1
COSTA RICA	119.0	259.6	278.2	294.6	277.1	283.9
SENEGAL	118.9	160.2	175.1	172.4	163.3	161.9
AZERBAIJAN	117.0	204.3	232.2	274.4	267.9	286.8
GEORGIA	111.0	76.9	84.6	90.1	87.5	91.0
GABON	110.3	291.8	357.8	443.9	376.6	412.0
LITHUANIA	103.5	232.3	258.6	304.1	297.5	318.8
CYPRUS	100.0	311.9	342.7	345.9	300.9	298.8
NAMIBIA	99.6	134.1	156.1	154.5	125.5	123.2
ETHIOPIA	98.3	121.6	126.6	141.2	144.0	153.5
NICARAGUA	96.1	77.8	91.0	93.2	80.0	82.1
PAPUA NEW GUINEA	95.3	194.0	219.1	225.3	203.2	204.6
HONDURAS	95.0	123.3	138.0	141.2	128.2	129.3
BAHAMAS, THE	94.9	181.2	213.0	231.4	188.6	194.0
LATVIA	91.5	197.5	218.2	250.1	243.9	259.8
MADAGASCAR	90.4	75.9	78.3	76.1	75.3	74.8
MOLDOVA	90.0	150.5	157.8	176.0	185.2	195.8

Table 11 (continued). Calculated Quotas of Fund Members

(In millions of SDRs)

FUND MEMBERS (RANKED BY AGREED QUOTAS)	BRETTON					
	AGREED QUOTAS (1)	WOODS REDUCED (2)	SCHEME III (3)	SCHEME IV (4)	SCHEME M4 (5)	SCHEME M7 (6)
ICELAND	85.3	195.7	208.7	203.4	192.4	188.4
MOZAMBIQUE	84.0	83.4	97.7	96.6	74.6	74.5
BAHRAIN	82.8	647.7	806.4	974.8	604.1	652.0
GUINEA	78.7	96.6	104.3	105.5	99.5	100.1
SIERRA LEONE	77.2	22.2	24.6	28.1	27.6	29.3
MAURITIUS	73.3	194.7	217.4	225.4	178.6	179.2
PARAGUAY	72.1	171.6	178.3	199.3	203.4	215.6
MALI	68.9	73.2	76.1	77.8	74.4	75.9
SURINAME	67.6	95.3	124.8	152.4	82.4	88.9
MALTA	67.5	278.9	315.8	331.8	216.2	217.5
ARMENIA	67.5	82.0	93.0	100.6	94.3	98.5
GUYANA	67.2	50.5	59.6	67.0	44.2	46.5
CAMBODIA	65.0	30.4	28.5	30.0	32.1	33.9
KYRGYZSTAN	64.5	135.5	152.9	169.3	160.9	169.3
HAITI	60.7	33.9	35.4	38.0	38.8	40.6
TAJIKISTAN	60.0	226.2	283.3	317.3	230.5	242.6
RWANDA	59.5	35.0	37.2	38.7	37.3	38.9
CONGO, PEOPLES REP.	57.9	176.1	220.6	271.9	219.5	240.8
BURUNDI	57.2	27.8	29.4	32.1	30.5	32.5
TOGO	54.3	62.9	71.0	76.3	65.4	67.5
NEPAL	52.0	90.6	88.8	91.0	91.1	93.1
FIJI	51.1	91.4	105.0	119.5	99.5	104.4
MALAWI	50.9	61.0	68.5	74.3	70.4	73.8
MACEDONIA, FYR	49.6	131.2	152.2	163.4	141.0	144.6
BARBADOS	48.9	84.7	99.3	116.5	99.1	105.6
NIGER	48.3	54.0	56.0	63.1	64.1	68.6
TURKMENISTAN	48.0	252.9	290.9	358.7	316.5	343.6
MAURITANIA	47.5	58.3	69.6	71.5	55.2	55.5
ESTONIA	46.5	122.1	126.2	144.5	152.4	162.7
BENIN	45.3	70.2	77.5	91.6	88.6	96.0
BURKINA FASO	44.2	95.1	97.1	99.5	97.6	100.0
CHAD	41.3	39.6	44.6	45.9	41.0	42.0
CENTRAL AFRICAN REP.	41.2	32.7	34.2	34.8	33.2	33.9
LAO, P.D. REP.	39.1	26.1	26.4	25.8	26.0	26.0
MONGOLIA	37.1	102.2	133.1	157.6	96.9	105.2
BOTSWANA	36.6	326.8	327.0	406.2	353.4	386.5
SWAZILAND	36.5	101.0	119.7	131.0	89.8	92.4

Table 11 (concluded). Calculated Quotas of Fund Members

(In millions of SDRs)

FUND MEMBERS (RANKED BY AGREED QUOTAS)	AGREED QUOTAS (1)	BRETTON				
		WOODS REDUCED (2)	SCHEME III (3)	SCHEME IV (4)	SCHEME M4 (5)	SCHEME M7 (6)
ALBANIA	35.3	58.7	71.2	90.9	81.5	91.7
EQUATORIAL GUINEA	24.3	7.0	8.3	8.3	6.9	6.9
LESOTHO	23.9	94.5	115.3	130.5	83.0	87.1
GAMBIA, THE	22.9	17.6	19.8	23.4	20.8	22.7
BELIZE	13.5	26.2	30.1	31.0	25.8	26.0
VANUATU	12.5	15.8	19.0	21.9	16.1	17.2
ERITREA	11.5	17.8	16.4	14.7	15.6	14.8
DJIBOUTI	11.5	26.0	30.2	32.6	26.6	27.6
ST. LUCIA	11.0	32.2	37.3	35.8	27.0	26.0
GUINEA-BISSAU	10.5	8.9	10.3	11.1	9.9	10.5
SAN-MARINO	10.0	72.9	84.5	85.7	60.7	59.7
ANTIGUA AND BARBUDA	8.5	49.7	60.8	62.9	40.3	40.2
GRENADA	8.5	13.7	15.7	16.0	13.2	13.1
WESTERN SAMOA	8.5	11.9	13.8	15.4	10.8	11.3
SOLOMON ISLANDS	7.5	18.0	21.9	24.3	18.6	19.5
CAPE VERDE	7.0	14.7	15.7	16.8	15.6	16.1
ST. KITTIS AND NEVIS	6.5	13.5	15.8	15.9	12.0	11.9
COMOROS	6.5	8.5	9.3	10.1	9.3	9.8
DOMINICA	6.0	11.9	13.9	13.8	10.7	10.6
ST. VINCENT	6.0	16.8	20.2	22.7	17.3	18.2
SEYCHELLES	6.0	25.8	30.2	31.2	24.9	25.0
MALDIVES	5.5	21.6	25.9	26.4	17.8	17.7
SAO TOME AND PRINCIPE	5.5	3.3	3.9	4.5	3.6	3.9
TONGA	5.0	8.5	9.8	11.3	9.3	9.9
BHUTAN	4.5	13.3	14.7	16.9	14.4	15.4
KIRIBATI	4.0	14.8	13.0	19.6	12.2	14.4
MICRONESIA	3.5	13.2	14.2	15.5	12.7	13.4
MARSHALL ISLANDS	2.5	7.8	9.3	10.1	7.3	7.6
TOTAL	144,474.9	510,110.4	510,110.4	510,110.4	510,110.4	510,110.4

Table 12. Average Contribution of Variables to Calculated Quotas for Selected Country Groups

(In percent) 1/

	Variability		GDP		Current Payments		Current Receipts		Reserves	
	Tenth Review	Eleventh Review	Tenth Review	Eleventh Review	Tenth Review	Eleventh Review	Tenth Review	Eleventh Review	Tenth Review	Eleventh Review
Industrial countries	9.1	14.0	43.8	33.9	41.2	42.0	1.7	6.2	4.2	3.9
Developing countries	30.5	25.5	26.1	22.9	34.3	40.1	4.8	5.1	4.3	6.4
Major oil exporting countries	53.1	44.4	16.2	8.5	22.1	35.9	6.0	7.7	2.6	3.6
Non-oil developing countries	20.6	20.1	30.4	26.9	39.6	41.3	4.3	4.4	5.1	7.2
All members	15.3	17.0	38.6	31.0	39.2	41.5	2.6	5.9	4.3	4.6

Note: Changes in the averages shown in this table reflect (i) changes in the relative size of the data since the Ninth Review calculations, and (ii) changes resulting from shifts in the formulas that apply to individual members that result from the present multiformula method.

1/ The contribution of an economic variable to a calculated quota is calculated as the product of the variable and its coefficient(s) in the applicable formula(s) expressed as a percentage of the calculated quota; the contribution of the multiplicative factor in the case of nonlinear formulas was proportionately distributed among the variables entering into these formulas. The averages shown for various groups of members are summations of the individual contributions to members' calculated quotas expressed as a percentage of total calculated quotas for the subgroups of countries indicated.

Table 13. Agreed and Calculated Shares of Fund Members  
Ranked in Descending Order of Agreed Quota Shares

(In percent)

FUND MEMBERS (RANKED BY AGREED QUOTAS)	AGREED QUOTA SHARES (1)	CALCULATED QUOTA SHARES -----	
		ELEVENTH (2)	TENTH (3)
UNITED STATES	18.217	17.121	17.991
GERMANY	5.660	8.768	7.917
JAPAN	5.660	10.305	9.246
FRANCE	5.092	5.425	5.387
UNITED KINGDOM	5.092	5.300	5.407
SAUDI ARABIA	3.523	1.481	2.527
ITALY	3.153	4.511	4.673
CANADA	2.967	3.289	3.523
RUSSIA	2.962	1.799	1.742
NETHERLANDS	2.365	2.969	2.609
CHINA	2.325	1.638	1.413
BELGIUM	2.130	2.808	2.218
INDIA	2.098	0.689	0.888
SWITZERLAND	1.697	1.997	1.527
AUSTRALIA	1.602	1.251	1.342
BRAZIL	1.491	1.203	1.406
VENEZUELA	1.340	0.553	0.626
SPAIN	1.329	2.068	2.020
MEXICO	1.204	1.262	1.081
SWEDEN	1.108	1.371	1.350
ARGENTINA	1.056	0.596	0.453
INDONESIA	1.028	0.794	0.776
SOUTH AFRICA	0.938	0.462	0.677
NIGERIA	0.880	0.429	0.633
AUSTRIA	0.816	1.255	1.137
NORWAY	0.759	0.999	1.024
IRAN	0.741	0.627	1.286
DENMARK	0.735	0.935	0.906
UKRAINE	0.685	0.378	0.376
KUWAIT	0.683	0.557	0.606
POLAND	0.679	0.482	0.394
ALGERIA	0.628	0.349	0.421
IRAQ	0.594	0.000	0.825
FINLAND	0.592	0.614	0.680
MALAYSIA	0.572	0.859	0.720

Table 13 (continued). Agreed and Calculated Shares of  
Fund Members Ranked in Descending Order of  
Agreed Quota Shares

(In percent)

FUND MEMBERS (RANKED BY AGREED QUOTAS)	AGREED QUOTA SHARES (1)	CALCULATED QUOTA SHARES	
		ELEVENTH (2)	TENTH (3)
LIBYA	0.561	0.312	0.425
KOREA	0.549	1.589	1.460
PAKISTAN	0.521	0.202	0.203
HUNGARY	0.518	0.294	0.253
ROMANIA	0.518	0.241	0.296
EGYPT	0.466	0.348	0.334
ISRAEL	0.458	0.411	0.413
NEW ZEALAND	0.446	0.251	0.273
TURKEY	0.441	0.599	0.560
PHILIPPINES	0.435	0.314	0.266
CHILE	0.427	0.253	0.231
CZECH REPUBLIC	0.405	0.250	0.238
GREECE	0.404	0.386	0.384
THAILAND	0.394	0.783	0.586
COLOMBIA	0.385	0.229	0.228
PORTUGAL	0.383	0.558	0.488
IRELAND	0.361	0.582	0.522
PERU	0.320	0.134	0.139
BULGARIA	0.319	0.217	0.330
MOROCCO	0.294	0.165	0.146
ZAIRE	0.271	0.054	0.068
BANGLADESH	0.270	0.085	0.088
UNITED ARAB EMIRAT	0.269	0.549	0.496
ZAMBIA	0.250	0.035	0.039
SINGAPORE	0.246	1.481	1.183
SRI LANKA	0.208	0.073	0.067
BELARUS	0.193	0.100	0.096
GHANA	0.188	0.032	0.035
CROATIA	0.180	0.157	0.175
ZIMBABWE	0.179	0.041	0.047
SLOVAK REPUBLIC	0.177	0.091	0.104
KAZAKHSTAN	0.170	0.125	0.078
TRINIDAD AND TOBAG	0.169	0.063	0.078
VIET NAM	0.166	0.054	0.047
COTE D'IVOIRE	0.164	0.080	0.099

Table 13 (continued). Agreed and Calculated Shares of  
Fund Members Ranked in Descending Order of  
Agreed Quota Shares

(In percent)

FUND MEMBERS (RANKED BY AGREED QUOTAS)	AGREED QUOTA SHARES (1)	CALCULATED QUOTA SHARES	
		ELEVENTH (2)	TENTH (3)
SUDAN	0.160	0.026	0.048
URUGUAY	0.155	0.052	0.052
ECUADOR	0.151	0.093	0.103
SYRIAN ARAB REPUBL	0.144	0.120	0.112
ANGOLA	0.142	0.098	0.095
TUNISIA	0.141	0.110	0.118
JAMAICA	0.138	0.050	0.049
UZBEKISTAN	0.137	0.083	0.062
KENYA	0.137	0.048	0.059
QATAR	0.131	0.106	0.128
MYANMAR	0.127	0.089	0.050
YEMEN, REP. OF	0.121	0.066	0.067
DOMINICAN REPUBLIC	0.109	0.054	0.057
GUATEMALA	0.106	0.046	0.045
SLOVENIA	0.103	0.130	0.100
PANAMA	0.103	0.065	0.113
TANZANIA	0.101	0.028	0.030
LEBANON	0.100	0.066	0.108
LUXEMBOURG	0.093	0.410	0.310
CAMEROON	0.093	0.053	0.068
UGANDA	0.092	0.013	0.016
BOLIVIA	0.087	0.027	0.029
EL SALVADOR	0.086	0.033	0.035
JORDAN	0.084	0.079	0.103
AFGHANISTAN	0.083	0.000	0.025
OMAN	0.082	0.151	0.159
COSTA RICA	0.082	0.053	0.049
SENEGAL	0.082	0.031	0.035
AZERBAIJAN	0.080	0.048	0.034
GEORGIA	0.076	0.016	0.034
GABON	0.076	0.070	0.073
LITHUANIA	0.071	0.053	0.031
CYPRUS	0.069	0.060	0.052
NAMIBIA	0.068	0.026	0.037
ETHIOPIA	0.068	0.026	0.032

Table 13 (continued). Agreed and Calculated Shares of  
Fund Members Ranked in Descending Order of  
Agreed Quota Shares

(In percent)

FUND MEMBERS (RANKED BY AGREED QUOTAS)	AGREED QUOTA SHARES (1)	CALCULATED QUOTA SHARES	
		ELEVENTH (2)	TENTH (3)
LIBERIA	0.066	0.000	0.015
NICARAGUA	0.066	0.015	0.020
PAPUA NEW GUINEA	0.065	0.039	0.040
HONDURAS	0.065	0.025	0.028
BAHAMAS, THE	0.065	0.037	0.043
LATVIA	0.063	0.044	0.024
MADAGASCAR	0.062	0.015	0.017
MOLDOVA	0.062	0.032	0.024
ICELAND	0.059	0.037	0.043
MOZAMBIQUE	0.058	0.016	0.016
BAHRAIN	0.057	0.124	0.134
GUINEA	0.054	0.019	0.018
SIERRA LEONE	0.053	0.005	0.006
MAURITIUS	0.050	0.037	0.034
PARAGUAY	0.050	0.036	0.035
MALI	0.047	0.014	0.015
SURINAME	0.046	0.018	0.016
ARMENIA	0.046	0.018	0.017
MALTA	0.046	0.053	0.046
GUYANA	0.046	0.010	0.011
CAMBODIA	0.045	0.006	0.007
KYRGYZSTAN	0.044	0.030	0.016
SOMALIA	0.042	0.000	0.008
HAITI	0.042	0.007	0.011
TAJIKISTAN	0.041	0.045	0.015
RWANDA	0.041	0.007	0.010
CONGO, PEOPLES REP	0.040	0.042	0.047
BURUNDI	0.039	0.006	0.007
TOGO	0.037	0.013	0.019
NEPAL	0.036	0.017	0.017
FIJI	0.035	0.019	0.019
MALAWI	0.035	0.013	0.013
MACEDONIA, FYR	0.034	0.027	0.033
BARBADOS	0.034	0.019	0.027
NIGER	0.033	0.011	0.016

Table 13 (continued). Agreed and Calculated Shares of  
Fund Members Ranked in Descending Order of  
Agreed Quota Shares

(In percent)

FUND MEMBERS (RANKED BY AGREED QUOTAS)	AGREED QUOTA SHARES (1)	CALCULATED QUOTA SHARES	
		ELEVENTH (2)	TENTH (3)
TURKMENISTAN	0.033	0.058	0.013
MAURITANIA	0.033	0.011	0.014
ESTONIA	0.032	0.026	0.013
BENIN	0.031	0.016	0.021
BURKINA FASO	0.030	0.019	0.017
CHAD	0.028	0.008	0.010
CENTRAL AFRICAN RE	0.028	0.006	0.008
LAO,P.D. REP.	0.027	0.005	0.005
MONGOLIA	0.025	0.020	0.016
BOTSWANA	0.025	0.065	0.073
SWAZILAND	0.025	0.019	0.018
ALBANIA	0.024	0.015	0.011
EQUATORIAL GUINEA	0.017	0.001	0.001
LESOTHO	0.016	0.018	0.015
GAMBIA,THE	0.016	0.004	0.004
BELIZE	0.009	0.005	0.005
VANUATU	0.009	0.003	0.003
DJIBOUTI	0.008	0.005	0.005
ERITREA	0.008	0.003	0.002
ST. LUCIA	0.008	0.006	0.006
GUINEA-BISSAU	0.007	0.002	0.002
SAN-MARINO	0.007	0.014	0.012
ANTIGUA AND BARBUD	0.006	0.009	0.010
GRENADA	0.006	0.003	0.003
WESTERN SAMOA	0.006	0.002	0.002
SOLOMON ISLANDS	0.005	0.004	0.004
CAPE VERDE	0.005	0.003	0.003
COMOROS	0.004	0.002	0.002
ST. KITTIS AND NEV	0.004	0.003	0.002
DOMINICA	0.004	0.002	0.002
SEYCHELLES	0.004	0.005	0.005
ST. VINCENT	0.004	0.003	0.003
MALDIVES	0.004	0.004	0.004
SAO TOME AND PRINC	0.004	0.001	0.001
TONGA	0.003	0.002	0.002

Table 13 (concluded). Agreed and Calculated Shares of  
Fund Members Ranked in Descending Order of  
Agreed Quota Shares

(In percent)

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FUND MEMBERS (RANKED BY AGREED QUOTAS)	AGREED	CALCULATED QUOTA SHARES	
	QUOTA	-----	
	SHARES	ELEVENTH	TENTH
	(1)	(2)	(3)
BHUTAN	0.003	0.003	0.003
KIRIBATI	0.003	0.003	0.002
MICRONESIA	0.002	0.003	0.002
MARSHALL ISLANDS	0.002	0.001	0.002
TOTAL	100.00	100.00	100.00

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Table 14. Illustrative Quota Calculations  
Using Five-Year Average for GDP

(In percent)

FUND MEMBERS (RANKED BY AGREED QUOTAS)	CUSTOMARY CALCULATED		ALTERNATIVE QUOTA CALCULATION WITH FIVE-YEAR SAMPLE FOR GDP (3)	MEMO: AGREED QUOTA SHARES (4)
	QUOTA SHARES			
	TENTH REVIEW (1)	ELEVENTH REVIEW (2)		
UNITED STATES	17.991	17.121	16.838	18.217
GERMANY	7.917	8.768	8.815	5.660
JAPAN	9.246	10.305	9.530	5.660
FRANCE	5.387	5.425	5.476	5.092
UNITED KINGDOM	5.407	5.300	5.386	5.092
SAUDI ARABIA	2.527	1.481	1.506	3.523
ITALY	4.673	4.511	4.586	3.153
CANADA	3.523	3.289	3.326	2.967
RUSSIA	1.742	1.799	1.818	2.962
NETHERLANDS	2.609	2.969	3.041	2.365
CHINA	1.413	1.638	1.663	2.325
BELGIUM	2.218	2.808	2.894	2.130
INDIA	0.888	0.689	0.729	2.098
SWITZERLAND	1.527	1.997	2.018	1.697
AUSTRALIA	1.342	1.251	1.259	1.602
BRAZIL	1.406	1.203	1.207	1.491
VENEZUELA	0.626	0.553	0.560	1.340
SPAIN	2.020	2.068	2.122	1.329
MEXICO	1.081	1.262	1.218	1.204
SWEDEN	1.350	1.371	1.393	1.108
ARGENTINA	0.453	0.596	0.507	1.056
INDONESIA	0.776	0.794	0.803	1.028
SOUTH AFRICA	0.677	0.462	0.464	0.938
NIGERIA	0.633	0.429	0.431	0.880
AUSTRIA	1.137	1.255	1.278	0.816
NORWAY	1.024	0.999	1.006	0.759
IRAN	1.286	0.627	0.633	0.741
DENMARK	0.906	0.935	0.950	0.735
UKRAINE	0.376	0.378	0.385	0.685
KUWAIT	0.606	0.557	0.576	0.683
POLAND	0.394	0.482	0.484	0.679
ALGERIA	0.421	0.349	0.348	0.628
IRAQ	0.825	0.000	0.000	0.594
FINLAND	0.680	0.614	0.639	0.592
MALAYSIA	0.720	0.859	0.928	0.572

Table 14 (continued). Illustrative Quota Calculations  
Using Five-Year Average for GDP

(In percent)

FUND MEMBERS (RANKED BY AGREED QUOTAS)	CUSTOMARY CALCULATED QUOTA SHARES		ALTERNATIVE QUOTA CALCULATION WITH FIVE-YEAR SAMPLE FOR GDP (3)	MEMO: AGREED QUOTA SHARES (4)
	TENTH REVIEW (1)	ELEVENTH REVIEW (2)		
	-----			
LIBYA	0.425	0.312	0.315	0.561
KOREA	1.460	1.589	1.597	0.549
PAKISTAN	0.203	0.202	0.200	0.521
HUNGARY	0.253	0.294	0.296	0.518
ROMANIA	0.296	0.241	0.241	0.518
EGYPT	0.334	0.348	0.353	0.466
ISRAEL	0.413	0.411	0.416	0.458
NEW ZEALAND	0.273	0.251	0.254	0.446
TURKEY	0.560	0.599	0.574	0.441
PHILIPPINES	0.266	0.314	0.315	0.435
CHILE	0.231	0.253	0.255	0.427
CZECH REPUBLIC	0.238	0.250	0.253	0.405
GREECE	0.384	0.386	0.386	0.404
THAILAND	0.586	0.783	0.794	0.394
COLOMBIA	0.228	0.229	0.230	0.385
PORTUGAL	0.488	0.558	0.564	0.383
IRELAND	0.522	0.582	0.595	0.361
PERU	0.139	0.134	0.136	0.320
BULGARIA	0.330	0.217	0.216	0.319
MOROCCO	0.146	0.165	0.167	0.294
ZAIRE	0.068	0.054	0.054	0.271
BANGLADESH	0.088	0.085	0.086	0.270
UNITED ARAB EMIRAT	0.496	0.549	0.557	0.269
ZAMBIA	0.039	0.035	0.036	0.250
SINGAPORE	1.183	1.481	1.707	0.246
SRI LANKA	0.067	0.073	0.074	0.208
BELARUS	0.096	0.100	0.102	0.193
GHANA	0.035	0.032	0.032	0.188
CROATIA	0.175	0.157	0.154	0.180
ZIMBABWE	0.047	0.041	0.042	0.179
SLOVAK REPUBLIC	0.104	0.091	0.092	0.177
KAZAKHSTAN	0.078	0.125	0.127	0.170
TRINIDAD AND TOBAG	0.078	0.063	0.063	0.169
VIET NAM	0.047	0.054	0.054	0.166
COTE D'IVOIRE	0.099	0.080	0.081	0.164

Table 14 (continued). Illustrative Quota Calculations  
Using Five-Year Average for GDP

(In percent)

FUND MEMBERS (RANKED BY AGREED QUOTAS)	CUSTOMARY CALCULATED QUOTA SHARES		ALTERNATIVE QUOTA CALCULATION WITH FIVE-YEAR SAMPLE FOR GDP (3)	MEMO: AGREED QUOTA SHARES (4)
	TENTH REVIEW (1)	ELEVENTH REVIEW (2)		
	-----			
SUDAN	0.048	0.026	0.027	0.160
URUGUAY	0.052	0.052	0.050	0.155
ECUADOR	0.103	0.093	0.094	0.151
SYRIAN ARAB REPUB	0.112	0.120	0.118	0.144
ANGOLA	0.095	0.098	0.096	0.142
TUNISIA	0.118	0.110	0.112	0.141
JAMAICA	0.049	0.050	0.051	0.138
UZBEKISTAN	0.062	0.083	0.085	0.137
KENYA	0.059	0.048	0.050	0.137
QATAR	0.128	0.106	0.107	0.131
MYANMAR	0.050	0.089	0.061	0.127
YEMEN, REP. OF	0.067	0.066	0.067	0.121
DOMINICAN REPUBLIC	0.057	0.054	0.054	0.109
GUATEMALA	0.045	0.046	0.046	0.106
SLOVENIA	0.100	0.130	0.130	0.103
PANAMA	0.113	0.065	0.066	0.103
TANZANIA	0.030	0.028	0.028	0.101
LEBANON	0.108	0.066	0.068	0.100
LUXEMBOURG	0.310	0.410	0.438	0.093
CAMEROON	0.068	0.053	0.053	0.093
UGANDA	0.016	0.013	0.013	0.092
BOLIVIA	0.029	0.027	0.027	0.087
EL SALVADOR	0.035	0.033	0.033	0.086
JORDAN	0.103	0.079	0.084	0.084
AFGHANISTAN	0.025	0.000	0.000	0.083
OMAN	0.159	0.151	0.154	0.082
COSTA RICA	0.049	0.053	0.053	0.082
SENEGAL	0.035	0.031	0.031	0.082
AZERBAIJAN	0.034	0.048	0.047	0.080
GEORGIA	0.034	0.016	0.020	0.076
GABON	0.073	0.070	0.071	0.076
LITHUANIA	0.031	0.053	0.053	0.071
CYPRUS	0.052	0.060	0.061	0.069
NAMIBIA	0.037	0.026	0.026	0.068
ETHIOPIA	0.032	0.026	0.027	0.068

Table 14 (continued). Illustrative Quota Calculations  
Using Five-Year Average for GDP

(In percent)

FUND MEMBERS (RANKED BY AGREED QUOTAS)	CUSTOMARY CALCULATED QUOTA SHARES		ALTERNATIVE QUOTA CALCULATION WITH FIVE-YEAR SAMPLE FOR GDP (3)	MEMO: AGREED QUOTA SHARES (4)
	TENTH REVIEW (1)	ELEVENTH REVIEW (2)		
LIBERIA	0.015	0.000	0.000	0.066
NICARAGUA	0.020	0.015	0.015	0.066
PAPUA NEW GUINEA	0.040	0.039	0.039	0.065
HONDURAS	0.028	0.025	0.025	0.065
BAHAMAS, THE	0.043	0.037	0.037	0.065
LATVIA	0.024	0.044	0.044	0.063
MADAGASCAR	0.017	0.015	0.014	0.062
MOLDOVA	0.024	0.032	0.032	0.062
ICELAND	0.043	0.037	0.038	0.059
MOZAMBIQUE	0.016	0.016	0.016	0.058
BAHRAIN	0.134	0.124	0.129	0.057
GUINEA	0.018	0.019	0.019	0.054
SIERRA LEONE	0.006	0.005	0.005	0.053
MAURITIUS	0.034	0.037	0.039	0.050
PARAGUAY	0.035	0.036	0.036	0.050
MALI	0.015	0.014	0.014	0.047
SURINAME	0.016	0.018	0.017	0.046
ARMENIA	0.017	0.018	0.019	0.046
MALTA	0.046	0.053	0.054	0.046
GUYANA	0.011	0.010	0.010	0.046
CAMBODIA	0.007	0.006	0.007	0.045
KYRGYZSTAN	0.016	0.030	0.030	0.044
SOMALIA	0.008	0.000	0.000	0.042
HAITI	0.011	0.007	0.007	0.042
TAJIKISTAN	0.015	0.045	0.047	0.041
RWANDA	0.010	0.007	0.007	0.041
CONGO, PEOPLES REP	0.047	0.042	0.042	0.040
BURUNDI	0.007	0.006	0.006	0.039
TOGO	0.019	0.013	0.013	0.037
NEPAL	0.017	0.017	0.018	0.036
FIJI	0.019	0.019	0.020	0.035
MALAWI	0.013	0.013	0.013	0.035
MACEDONIA, FYR	0.033	0.027	0.028	0.034
BARBADOS	0.027	0.019	0.019	0.034
NIGER	0.016	0.011	0.011	0.033

Table 14 (continued). Illustrative Quota Calculations  
Using Five-Year Average for GDP

(In percent)

FUND MEMBERS (RANKED BY AGREED QUOTAS)	CUSTOMARY CALCULATED QUOTA SHARES		ALTERNATIVE QUOTA CALCULATION WITH FIVE-YEAR SAMPLE FOR GDP	MEMO: AGREED QUOTA SHARES
	TENTH REVIEW (1)	ELEVENTH REVIEW (2)		
TURKMENISTAN	0.013	0.058	0.058	0.033
MAURITANIA	0.014	0.011	0.011	0.033
ESTONIA	0.013	0.026	0.026	0.032
BENIN	0.021	0.016	0.016	0.031
BURKINA FASO	0.017	0.019	0.019	0.030
CHAD	0.010	0.008	0.008	0.028
CENTRAL AFRICAN RE	0.008	0.006	0.007	0.028
LAO,P.D. REP.	0.005	0.005	0.005	0.027
MONGOLIA	0.016	0.020	0.020	0.025
BOTSWANA	0.073	0.065	0.066	0.025
SWAZILAND	0.018	0.019	0.020	0.025
ALBANIA	0.011	0.015	0.015	0.024
EQUATORIAL GUINEA	0.001	0.001	0.001	0.017
LESOTHO	0.015	0.018	0.019	0.016
GAMBIA,THE	0.004	0.004	0.004	0.016
BELIZE	0.005	0.005	0.005	0.009
VANUATU	0.003	0.003	0.003	0.009
ERITREA	0.002	0.003	0.003	0.008
DJIBOUTI	0.005	0.005	0.005	0.008
ST. LUCIA	0.006	0.006	0.006	0.008
GUINEA-BISSAU	0.002	0.002	0.002	0.007
SAN-MARINO	0.012	0.014	0.016	0.007
WESTERN SAMOA	0.002	0.002	0.002	0.006
GRENADA	0.003	0.003	0.003	0.006
ANTIGUA AND BARBUD	0.010	0.009	0.010	0.006
SOLOMON ISLANDS	0.004	0.004	0.004	0.005
CAPE VERDE	0.003	0.003	0.003	0.005
ST. KITTIS AND NEV	0.002	0.003	0.003	0.004
COMOROS	0.002	0.002	0.002	0.004
DOMINICA	0.002	0.002	0.002	0.004
ST. VINCENT	0.003	0.003	0.003	0.004
SEYCHELLES	0.005	0.005	0.005	0.004
SAO TOME AND PRINC	0.001	0.001	0.001	0.004
MALDIVES	0.004	0.004	0.005	0.004
TONGA	0.002	0.002	0.002	0.003

Table 14 (concluded). Illustrative Quota Calculations  
Using Five-Year Average for GDP

(In percent)

FUND MEMBERS (RANKED BY AGREED QUOTAS)	CUSTOMARY CALCULATED QUOTA SHARES		ALTERNATIVE QUOTA CALCULATION WITH FIVE-YEAR SAMPLE FOR GDP	MEMO: AGREED QUOTA SHARES
	TENTH REVIEW (1)	ELEVENTH REVIEW (2)		
BHUTAN	0.003	0.003	0.003	0.003
KIRIBATI	0.002	0.003	0.003	0.003
MICRONESIA	0.002	0.003	0.003	0.002
MARSHALL ISLANDS	0.002	0.001	0.002	0.002
TOTAL	100.00	100.00	100.00	100.00

Data Sources and Notes

These notes describe the data used in the preliminary quota calculations. Data for the years 1991-93 have been included for the first time, while some of the data relating to earlier years have been revised. Unless otherwise stated, the source of the data is the IFS/WEO. Data provided by area departments include staff estimates.

Afghanistan

No data for 1991-93 period.

Albania

Current receipts and payments 1985-93, and reserves 1990-93: area department. The current receipts and payments data for 1985-93 are based on the valuation of CMEA trade at official cross-commercial exchange rates and are consistent with WEO data. Reserves data through 1992 are end-of-year data; for 1993, reserves data are average end-of-month data.

Algeria

GDP 1991-93, current receipts and payments 1992-93: area department.

Angola

GDP, current receipts and payments 1991-93, and reserves 1990: area department.

Antigua and Barbuda

GDP, current receipts and payments 1989-93, and reserves 1993: area department.

Argentina

Current receipts and payments 1989-93: area department.

Austria

All data: area department.

Bahamas

Current receipts and payments 1989-93: area department.

Bahrain

All data: area department. Data have been adjusted to exclude re-exports. Offshore bank interest (which is treated as having been received and paid by nonresidents) is included as a net item only.

Baltic States, Russia, and the other states of the former Soviet Union

All data: area department.

Bangladesh

GDP 1993, current receipts and payments 1991-93: area department.

Barbados

GDP 1991-93, current receipts and payments 1989-93: area department.

Belgium

All data: area department. The customary adjustment for international banking flows has not yet been made.

Belize

Current receipts and payments 1989-93: area department.

Benin

GDP 1991-93, current receipts 1989, 1991-93, and current payments 1991-93: area department.

Bhutan

All data 1991-1993: area department.

Bolivia

GDP 1990-93, current receipts and payments 1989-93: area department.

Botswana

GDP and current receipts 1990-93, current payments 1991-93, and reserves 1993: area department.

Brazil

GDP 1990-93, current receipts and payments 1989-93: area department.

Bulgaria

GDP 1990-93: area department. Current receipts and payments and reserves 1991-93: from the Bulgarian National Bank (supplied by the area department).

Burkina Faso

All data with the exception of reserves: area department.

Burundi

GDP 1989-93, current receipts 1985-93, current payments 1989-93, and reserves 1993: area department.

Cambodia

All data: area department.

Cameroon

GDP 1991-92: area department.

Canada

Current receipts and payments 1989-93 have been adjusted to take account of interest flows relating to international banking activity; data on international banking flows provided on a confidential basis by the Bank of Canada.

Cape Verde

GDP, current receipts and payments 1991-93, and reserves 1993: area department.

Central African Republic

GDP 1989-93, current receipts 1987-93, and current payments 1989-93: area department.

Chad

GDP 1990-93, current receipts 1993, and current payments 1989-93: area department.

Chile

GDP data 1991-93, current receipts and payments 1990-93: area department.

China

GDP 1989-93: Office of the Executive Director for China. Reserves 1993: area department. The underlying data series for current receipts and payments are consistent with the IFS, but were adjusted to exclude re-exports as well as certain transactions that relate to reprocessing of goods of which ownership remains in foreign hands at all times.

Colombia

GDP 1992-93, current receipts 1989-93: area department.

Comoros

GDP 1992-93, current receipts and payments 1991-93: area department.

Congo

GDP, current receipts and payments 1990-93: area department.

Costa Rica

GDP 1993, current receipts and payments 1991-93: area department.

Côte d'Ivoire

GDP 1991, current receipts 1991-93, and current payments 1989-93: area department.

Croatia

GDP 1990-93, current receipts and payments 1991-93, reserves 1992-93: area department. Other data are from REDs.

Cyprus

GDP 1991-92, current receipts 1981-82, current payments 1989-92, and reserves 1991-93: area department.

Czech Republic

GDP 1985-93, current receipts and payments 1981-93, reserves 1990-93: area department.

Denmark

GDP 1991-93, current receipts and payments 1983-93: area department.

Djibouti

GDP, current receipts and payments 1991-93: area department.  
Re-exports have been excluded from current receipts and payments.

Dominica

GDP 1990-1993, current receipts and payments 1988-93, and reserves 1993: area department.

Dominican Republic

GDP 1989-90: area department.

Ecuador

Current receipts and payments 1991-93: area department.

Egypt

GDP, current receipts and payments 1990-93: area department.

Equatorial Guinea

GDP 1991-93, current receipts 1986-93, and current payments 1989-93: area department.

Eritrea

All data: area department.

Fiji

GDP, current receipts and payments: area department.

Finland

Reserves 1990-93, current receipts and payments 1986-93: area department.

Former Yugoslav Republic of Macedonia

GDP, current receipts and payments, and reserves, all for 1992 and 1993: area department. Other data are from REDs.

France

Current receipts and payments have been adjusted to exclude international banking interest, data on which have been provided by the Bank of France.

Gabon

GDP, current receipts and payments 1990-93: area department.

Gambia, The

All data: area department.

Germany

Current receipts and payments 1981-93: area department. GDP data are from the German Federal Statistical Office (supplied by the area department). All data pertain to unified Germany.

Ghana

Current receipts and payments 1993: area department.

Greece

GDP 1991-93, current receipts 1981-93, and current payments 1988-93: area department. National authorities have recently provided revised national income accounts data. Current receipts data for 1981-84 have also been revised (supplied by area department).

Grenada

GDP 1989-93, current receipts and payments 1989-93, and reserves 1993: area department.

Guatemala

Current receipts and payments 1989-93, and reserves 1993: area department.

Guinea

GDP and current payments 1993: area department.

Guinea-Bissau

GDP, current receipts and payments 1991-93: area department.

Guyana

GDP 1989-93, current receipts and payments 1989-93, and reserves 1993: area department.

Haiti

GDP 1991-93, current receipts and payments 1991-93, and reserves 1993: area department.

Honduras

GDP 1993, current receipts and payments 1991-93: area department.

Hungary

Current receipts and payments 1989-93, and reserves 1989-93 are from the National Bank of Hungary (supplied by area department).

Iceland

GDP 1990-93, current receipts 1981-93, and current payments 1989-93: area department.

India

All data 1990-93: area department.

Indonesia

GDP, current receipts and payments 1989-93: area department.

Iran

GDP 1990-93, current receipts and payments 1993: area department.

Ireland

GDP 1991-93, current receipts and payments 1991-93: area department.

Israel

Current receipts and payments 1991-93: area department. Data on current receipts and payments include re-exports of diamonds as figures net of diamond trade are not available.

Italy

GDP 1991-93, current receipts and payments 1991-93, and reserves 1991-93: area department. Current receipts and payments have been adjusted to exclude offshore bank interest transactions.

Japan

All of the data were taken from the IFS; the data on current receipts and payments were adjusted downward to take account of interest receipts/payments from international banking activities. The methodology employed for this adjustment was to apply the average share of international banking flows in total receipts and payments, respectively, over the period 1981-85 to the average current receipts and payments data for the period 1991-93. This methodology was employed because estimates of international banking flows for the 1985-93 period were not available.

Jordan

Current receipts 1992-93 and current payments 1991-93: area department.

Kenya

GDP 1990, 1992-93, current receipts 1990, and current payments 1990-93: area department.

Kiribati

All data: area department.

Kuwait

GDP 1993: area department.

Lebanon

GDP 1991, current receipts 1989-93, and current payments 1991-93: area department.

Lesotho

GDP, current receipts and payments 1989-93, and reserves 1993: area department.

Libya

GDP, current receipts and payments 1991-93: area department.

Luxembourg

GDP, current receipts and payments 1980-93, and reserves 1984-93: area department. Current account transactions have been adjusted to exclude international banking interest.

Madagascar

Current receipts 1984, 1986-93, and current payments 1989-93: area department.

Malawi

GDP 1990 and 1992, current receipts and payments 1991-93: area department.

Malaysia

Current receipts and payments 1989-93: area department.

Maldives

GDP and current payments: area department.

Mali

GDP 1990-91, and current receipts and payments 1990-93: area department.

Malta

All data provided by the area department. Exports and imports are based on payments made through the banking system and were provided by the area department.

Marshall Islands

All data: area department.

Mauritania

GDP, current receipts and payments 1991-93: area department.

Mauritius

GDP 1991, current receipts and payments 1993: area department.

Mexico

Reserves 1993: area department.

Micronesia

All data: area department.

Mongolia

All data with the exception of GDP: area department.

Morocco

GDP 1990-93, current receipts 1988-93, and current payments 1989-93: area department.

Mozambique

GDP, current receipts and payments 1989-93, and reserves 1993: area department.

Myanmar

GDP, current receipts and payments: area department.

Namibia

All data: area department.

Nepal

GDP, current receipts and payments: area department.

Netherlands

GDP 1990-93, current receipts 1981-93, and current payments 1989-93: area department. Current receipts and payments data 1989-93 have not yet been adjusted for international banking interest.

New Zealand

GDP: area department.

Nicaragua

GDP 1989-93, current receipts 1991-93, and reserves 1993: area department. Owing to the substantial extent of distortions arising as a result of exchange rate misalignment during the period 1980-85 (giving rise to an inconsistent GDP series in SDRs), the GDP figures were re-estimated by the staff using (i) the GDP deflator of Nicaragua's trading partners in U.S. dollars applied to the 1991 GDP converted to dollars, and (ii) the real GDP growth rates (in córdobas) as estimated by national sources. The dollar figures were then converted to SDRs.

Niger

GDP 1990-91: area department.

Nigeria

GDP 1992-93, current receipts and payments 1991-93: area department.

Norway

GDP, current receipts and payments 1989-93: area department.

Pakistan

GDP, current receipts and payments 1990-93, and reserves 1993: area department.

Panama

Current receipts and payments have been adjusted to exclude receipts and payments relating to the Cólòn Free Zone.

Paraguay

Current receipts and payments 1989-93 (adjusted for re-exports): area department.

Peru

Current receipts and payments 1991-93: area department.

Poland

Current receipts and payments: area department.

Portugal

GDP, current receipts and payments: area department. National authorities have revised national income accounts data; the revised series is available from 1988.

Qatar

GDP 1992-93, current receipts 1988-93, and current payments 1991-93: area department.

Romania

GDP, current receipts and payments 1992-93: area department.

Rwanda

Current receipts, current payments, and reserves 1993: area department.

St. Kitts and Nevis

GDP 1992-93, current receipts and payments 1989-93: area department.

St. Lucia

GDP, current receipts and payments 1989-93: area department.

St. Vincent and the Grenadines

GDP 1991-93, current receipts and payments 1989-93: area department.

San Marino

GDP 1988-92, current receipts and payments 1988-92, and reserves 1990-92: area department. Current receipts and payments data have been adjusted for re-exports. Data are not available for 1993, and estimates for that year are based on extrapolation using recent growth rates.

São Tomé and Príncipe

GDP 1992-93, current receipts and payments 1991-93, reserves 1993: area department.

Saudi Arabia

Current receipts 1982-93 and current payments 1989-93: area department.

Senegal

GDP and current receipts 1991-93 and current payments 1990-93: area department.

Seychelles

GDP 1992, current receipts 1983-93, and current payments 1989-93: area department.

Sierra Leone

GDP 1989-93, and current receipts and payments 1991-93: area department.

Singapore

Current receipts and payments 1991-93: area department.

Slovak Republic

GDP 1985-93, current receipts 1981-93, current payments 1985-93, and reserves 1990-93: area department.

Slovenia

GDP 1990-93, current receipts and reserves 1992-93: area department. Other data are from REDs.

Solomon Islands

All data: area department.

South Africa

GDP, current receipts and payments 1991-93: area department.

Spain

GDP 1985-93, current receipts and payments 1985-93, and reserves 1990-93: area department.

Sri Lanka

All data: area department.

Sudan

Current receipts and payments 1993: area department.

Suriname

GDP, current receipts and payments 1989-93: area department. Data converted to SDRs at market exchange rate rather than official exchange rate. GDP estimates are based on a World Bank estimate of GNP in U.S. dollars for 1993.

Swaziland

GDP 1990-93, current receipts and payments 1989-93: area department.

Sweden

GDP 1991-93, current receipts and payments 1982-93: area department. GDP for 1985 was revised by area department.

Switzerland

GDP 1985-93 and reserves 1990-93: area department.

Syria

Current payments and reserves 1993: area department.

Tanzania

GDP, current receipts and payments 1989-93: area department.

Thailand

GDP, current receipts and payments: area department.

Togo

GDP 1993: area department.

Tonga

GDP: area department.

Trinidad and Tobago

GDP 1989-93, current receipts and payments 1989-93, and reserves 1993: area department.

Tunisia

GDP 1989-90, current receipts and payments 1991-93: area department.

Turkey

GDP 1991-93: area department.

Uganda

GDP 1989-93: area department.

United Arab Emirates

GDP, current receipts and payments 1990-93, and reserves 1993: area department.

United Kingdom

GDP, current receipts and payments, and reserves, 1988-93: area department. Current receipts and payments exclude international banking interest as estimated by the staff.

United States

Current receipts and payments data 1989-93 taken from IFS but adjusted to take account of interest flows relating to international banking activity; data on international banking flows provided by U.S. authorities.

Uruguay

GDP 1991-93, current receipts and payments 1989-93: area department.

Vanuatu

All data: area department. Current receipts and payments were revised to exclude net official transfers.

Venezuela

Current receipts 1990-93: area department.

Viet Nam

Current receipts and payments, reserves: area department.

Western Samoa

GDP, current receipts and payments: area department.

Yemen, Republic of

Current receipts and payments 1991-93: area department.

Zaire

GDP and current payments 1989-93, and current receipts 1982-93: area department.

Zambia

GDP, current receipts and payments 1991-93, and reserves 1990: area department.

Quota Formulas Used in the Eleventh General Review

The quota formulas together with their adjustment factors for the preliminary calculations for the Eleventh Review are: 1/

Bretton Woods:  $(0.01Y + 0.025R + 0.05P + 0.2276VC) \times (1 + C/Y)$

Scheme III:

$(0.0065Y + 0.0205125R + 0.078P + 0.4052VC) \times (1 + C/Y)$   
Adjustment factor: 0.845333

Scheme IV:

$(0.0045Y + 0.03896768R + 0.07P + 0.76976VC) \times (1 + C/Y)$   
Adjustment factor: 0.8190771

Scheme M4:

$0.005Y + 0.042280464R + 0.044 (P + C) + 0.8352VC$   
Adjustment factor: 0.898006312

Scheme M7:

$0.0045Y + 0.05281008R + 0.039 (P + C) + 1.0432VC$   
Adjustment factor: 0.900211

Where: Y = GDP at current market prices for 1993  
R = Twelve-month average of gold and foreign exchange reserves for 1993  
P = Annual average of current payments for the period 1989-1993  
C = Annual average of current receipts for the period 1989-1993  
VC = Variability of current receipts for the period 1981-1993

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1/ For the various quota formulas used during past quota reviews see Appendix I, EB/CQuota/94/2 (2/28/94).