INTERNATIONAL MONETARY FUND

Quotas and Voice—Further Considerations

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In consultation with other departments

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I. INTRODUCTION

1. **In its 2005 Spring Meeting, the International Monetary and Financial Committee (IMFC) encouraged the Board to consider further issues of quotas and voice, while noting that progress will require broad consensus among the shareholders.** The Committee also noted that the IMF's effectiveness and credibility as a cooperative institution must be safeguarded and further enhanced. In this regard, adequate voice by all members should be assured and the distribution of quotas should reflect developments in the world economy. The Committee emphasized that the period of the Thirteenth General Review of Quotas provides an opportunity for the membership to make progress toward a consensus on these issues.[1]

2. **During their discussion of the Fund's medium-term strategy on March 28, 2005, Directors reconfirmed the importance of adequate voice by all members, and a distribution of quotas that reflects developments in the world economy, to enhance the IMF's perceived legitimacy and effectiveness.** Directors agreed that voice issues should remain a key element of the strategy going forward. Given the different positions and perceptions of members in this area, Directors agreed with the view that the Fund's membership must consider closely and in a cooperative manner how best to take these issues forward. Many Directors suggested that this also include exploring prospects for pursuing various suggestions that would facilitate progress even in the absence of a general increase in Fund quotas.

3. **This paper represents a follow up to these requests.** It takes stock of the progress made in quota discussions to date, and examines options for adjustments in quotas or voting power outside of a general quota increase. The paper is organized as follows: Section II reviews the status of recent quota discussions, while Section III presents the results of updating the data through 2003. Section IV discusses the options for addressing the distribution of quotas and voting power outside of a general increase in quotas. These options include ad hoc increases for a selected group of individual members without offsetting adjustments in quotas elsewhere; upward adjustments for some members offset by voluntary declines in quotas for other members; and an increase in basic votes. Section V concludes and poses some issues for discussion.

[1] See *Communiqué of the International Monetary and Financial Committee of the Board of Governors of the International Monetary Fund, Washington D.C., 4/16/05.*

II. General Quota Reviews and the Status of Quota Discussions

4. **The Twelfth General Review of Quotas was concluded on January 30, 2003 by a resolution of the Board of Governors without an increase in quotas.**[2] The Board of Governors also noted the Executive Board's intention during the period of the Thirteenth General Review "to monitor closely and assess the adequacy of Fund resources, to consider measures to achieve a distribution of quotas that reflects developments in the world economy, and to consider measures to strengthen the governance of the Fund." In accordance with the Fund's Articles, the Thirteenth Review will need to be concluded by January 2008.[3]

5. **In the most recent review of the Fund's liquidity position in April of this year, staff concluded that the Fund's current and prospective position is satisfactory.**[4] At that time, the Fund's one-year forward commitment capacity (FCC) amounted to SDR 94 billion as compared to SDR 55 billion at end-2002 when the Executive Board concluded its discussions on the Twelfth General Review of Quotas without recommending an increase in quotas. The staff paper concluded that the Fund would likely be able to meet the projected near-term needs of its members, particularly in the context of the global economic recovery, but that continued monitoring would be important given the challenges to a sustained recovery and the need for the Fund to have adequate resources to fulfill its responsibilities. The adequacy of Fund resources will continue to be monitored and assessed in the context of the semi-annual liquidity reviews.

6. **During the period of the Thirteenth General Review of Quotas, there has been heightened emphasis on voice and governance issues.** Specifically, the Executive Board has been pursuing avenues to enhance the voice of developing and transition countries in the Fund's governing bodies on two different, but complementary, tracks: issues related to the distribution of quotas and voting power, which are being considered as part of the work program on quotas; and measures to enhance the administrative capacity of the offices of Executive Directors elected by developing and transition member countries (Box 1). Status

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[2] See *Completion of the Twelfth General Review of Quotas—Voting Results* (SM/02/355, Supplement 2, 1/30/03, Corrected: 2/3/03). The Board of Governors' *Resolution No. 58-1* was adopted on the basis of recommendations contained in *Twelfth General Review of Quotas—Report of the Executive Board to the Board of Governors*, Decision No. 12926-(03/1), adopted 1/3/03.

[3] The Resolution also took note of the Executive Board's intention to establish, as the discussion may warrant, a Committee of the Whole (COW) to make specific recommendations. The period of the Thirteenth General Review began after the conclusion of the Twelfth Review. However, appointment of a COW would constitute the formal start of the Thirteenth General Review of Quotas that is to be completed by January 30, 2008. A one-year minimum period is stipulated in Rule D-3 for a COW to be constituted prior to the scheduled completion of a review.

[4] The IMF reviews its liquidity position semi-annually.

reports on quotas and voice have been issued to the IMFC and Development Committee in 2003, 2004, and 2005.[5]

Box 1. Evolution of the Size and Structure of the Executive Board and Measures to Enhance Administrative Capacity of Executive Director's Offices

The size and structure of the Executive Board have evolved since the Board's inception in 1946 (Appendix I). The changes to the Board reflected changes in the international financial system and in Fund membership. In the period through the 1970s, the large increase in Fund membership due to the membership of newly independent countries in Africa and Asia, coupled with the growth of new sources of economic dynamism, resulted in an increase in the number of chairs from 12 to 20. Of those 20, two were created to accommodate the new African members (one each added in 1963 and 1964). In 1972, African representation was strengthened by an understanding reached in the Executive Board that there should be two Executive Directors elected by the African members for the efficient conduct of the Board's business. The Board of Governors took note of—and implicitly concurred with—this understanding, which was confirmed in 1978 at the time of the Second Amendment of the Articles. It has been endorsed, in the context of the Board of Governors' approval of the rules for the regular elections of Executive Directors, for every regular election since then. Further increases in the size of the Executive Board to the current 24 chairs reflected the addition of chairs for China and Saudi Arabia, as well as the increase in membership by the CIS and Eastern European countries, and Switzerland.

While voting power is the most readily identified dimension of voice, it remains crucial to ensure that the offices of Executive Directors from developing and transition countries, in particular those with large constituencies, have the administrative and technical capacity to participate fully and effectively in the Fund's decision-making process. This is essential for effective and collaborative consensus-building in which policies and their implementation reflect the views of the membership as a whole. In March 2003, the staffs of the Fund and the World Bank jointly prepared a technical note on voice for the Development Committee, which identified a number of possible avenues for enhancing the administrative and technical capacity of the large multi-country constituencies.1/ These included: extra technological support to facilitate communications with capitals; the facilitation of intra-constituency interaction; providing developing country chairs with technical and research support; adding advisors to Executive Directors' offices; and adding a second Alternate Executive Director.2/

The Fund's Executive Board subsequently took action in several areas. As a first step, it was agreed in April 2003 that Executive Directors with twenty or more member countries—including the Executive Directors from sub-Saharan Africa—may add three persons to the staff in their offices. Other recent initiatives include the use of new technology to facilitate close and effective communication between Executive Directors' offices and their authorities in capitals, and additional training for new members of Executive Directors' staff to be provided on a regular basis. While no new measures are presently being planned by the Executive Board, it will be important to sustain the efforts in this area going forward. This will include ensuring that incoming Board members and their staff are provided with timely and comprehensive information on Board procedures and Fund policies, and periodically reviewing the effectiveness of the capacity-enhancing measures that have already been taken.

1/ See *Voice and Participation of Developing and Transition Countries in Decision-Making at the World Bank and IMF—A Technical Note by Bank/Fund Staff for the Development Committee*, EB/CW/DC/03/1 Revision 1, March 26, 2003.

2/ The last-mentioned step would require an amendment of the Articles of Agreement.

[5] See *Report of the Executive Board to the IMFC on Quotas, Voice, and Representatio*n (IMFC/Doc/8/03/2, 9/12/03). See *Report of the Executive Board to the IMFC on Quotas, Voice, and Representatio*n (IMFC/Doc/10/04/4, 9/28/04). See *Voice and Participation of Developing and Transition Countries, Background Note by IMF Staff* (DC 2005-0007, 4/13/05).

7. **Progress has been made towards agreement on a new metric to measure members' relative economic positions.** The Board had previously endorsed the objective of a simpler and more transparent approach in specifying the variables in a new quota formula that would replace the existing quota formulas (See Appendices II and III for background on the determination of quotas and on the quota formulas, respectively), and agreed that the variables included in the quota formulas should be indicators of members' relative positions in the world economy.[6] These understandings were reaffirmed in July 2003.[7] It was also agreed to limit consideration to three or four variables used in the existing quota formulas, but updated and modernized. These variables include GDP and measures of openness, variability, and possibly official international reserves (Box 2). No consensus emerged on the weights to be used in aggregating the variables in a new quota formula, but many Directors considered that GDP, as the most important indicator of economic size, should have the highest weight.

8. **The July 2003 discussion also revealed considerable consensus among Executive Directors on a number of other issues relating to quota formulas and the distribution of quota shares.** Most Directors saw correlation among the variables in a quota formula as unavoidable, though a few Directors saw merit in further work to try to reduce this correlation. It was acknowledged that the correlation among variables meant that the coefficients attached to each variable cannot be taken to represent each variable's relative importance in a new quota formula. Accordingly, the precise choice of weights will ultimately require the Executive Board to exercise judgment regarding an outcome that could command wide support.

9. **A range of views was expressed on the implications for the distribution of quotas of any modernized and simple quota formula based on economic variables broadly endorsed.** Many Directors observed that, for a number of countries, actual quota shares are considerably lower than calculated quota shares, almost regardless of specific formulas, whereas the opposite appears to be true for many other countries. A number of Directors considered that these outcomes underscore the need for a political decision by the membership to secure quota shares that would strengthen the representation of developing countries in the Fund. A number of other Directors cautioned that changes in quota

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[6] Based on understandings reached during the Eleventh General Review of Quotas, which was completed in early 1998, the Executive Board has been conducting a comprehensive review of the formulas used to derive calculated quotas. As a first step in the process, the recommendations of a group of external experts—see *External Review of Quota Formulas* (EBAP/00/52, 5/1/00, Supplements 1 and 2, 5/1/00 and Supplement 3, 5/2/00) and *Staff Commentary on the External Review of the Quota Formulas* (EBAP/00/66, 6/7/00)—were discussed at an Executive Board seminar in August 2000. Further discussions based on follow-up work by the staff have taken place at an Executive Board seminar in October 2001 and at a meeting in June 2002. See *IMF Executive Board Informally Discusses Quota Formulas*, PIN No. 01/118, November 7, 2001, and *IMF Executive Board Discusses Further Considerations in the Twelfth General Review of Quotas*, PIN No. 02/105, September 20, 2002.

[7] See *IMF Executive Board Discusses Quota Distribution Issues*, PIN No. 03/106, August 29, 2003.

distribution should not target an *a priori* distribution between groups of countries. A few Directors expressed interest in the suggestion that a subgroup of members could voluntarily accept a reduction in their quota shares to allow for the increase of other members. A few other Directors called for a better representation of transition countries in the Fund.

Box 2. Quota Formulas Discussed by the Executive Board: Specification of Variables

GDP: Directors have generally agreed that the three-year average of GDP at market exchange rates is the most important variable to be included in any new formula as an indicator of countries' economic size and of their potential to either provide resources to the Fund or use Fund resources. The possibility of using purchasing power parity rather than market exchange rates to derive GDP was discussed in October 2001 when a “majority of the Board considered that market exchange rates should be used to convert GDP to a common currency, so as to obtain the best measure of the total amount of resources generated by a country.” See *IMF Executive Board Informally Discusses Quota Formulas*, PIN No. 01/118, November 7, 2001.

[1] See *IMF Executive Board Discusses Quota Distribution Issues*, PIN No. 03/106, August 29, 2003.

Openness: Most Directors have supported the inclusion of an openness variable, specified as the absolute sum of current receipts and current payments, averaged over a five-year period, to reflect countries' integration in the world economy. Directors have taken note of the data difficulties involved at the current stage in broadening the openness measure by including a variable for financial openness. Some Directors have been concerned about the correlation of openness with other variables and also about the treatment of trade within currency unions.

Variability: To capture countries’ vulnerability to balance of payments shocks in the quota formula (and the attendant potential demand for Fund resources), many Directors have supported the inclusion of a measure of variability of current receipts and net capital flows. Directors have also generally agreed that variability be specified as deviations from a three-year average, which would serve to smooth trends while adequately capturing the fluctuations in capital flows.

Reserves: Many Directors saw reserves as a useful indicator of members’ financial strength, which should be retained as a variable consistent with recent emphasis on reserve adequacy. A number of other Directors considered that, for many members with access to capital markets, reserves are of declining importance and should be excluded.

On the choice of weights for the variables in quota formulas, many Directors supported the view that the weights should be selected mainly on the basis of judgments about the relative importance of individual variables on economic grounds. It was recognized that this would ultimately require the Executive Board to exercise judgment regarding an outcome that can command wide support.

10. **In discussing how best to move forward, most Directors saw considerable merit in a package of measures.**[8] Such a package would involve:

- a general quota increase with the selective element allocated by means of a new quota formula;
- ad hoc quota increases aimed at increasing the quotas for those individual members with actual quota shares considerably smaller than calculated quota shares; and
- an increase in basic votes aimed at correcting the erosion of the voting power of the smallest members.

However, it was recognized that the required majority for all elements of such a package does not exist at present. Specifically, most Directors recognized that there was no need for a quota increase in view of the Fund's satisfactory liquidity position. Moreover, an increase in basic votes would require an amendment of the Articles of Agreement.

11. **Staff circulated a paper in August 2004 updating the data set used for illustrative quota calculations.**[9] The paper concluded that quota formulas using GDP and the other economic and financial variables and weights that have been considered broadly appropriate by the Board are not likely to yield results that significantly impact the overall distribution of calculated quota shares. In addition, the results underpinned the conclusions from earlier Board discussions. Specifically, for the industrial countries as a group, calculated quotas based on economic and financial variables deliver calculated quota shares that exceed actual quota shares while the converse is observed for developing and transition economies as a group.

III. Updated Quota Calculations

12. **Staff has updated the data set used for illustrative quota calculations for 184 members through 2003.** The updated data set for individual members is presented in Table A2 (Statistical Appendix) both for the traditional variables used in the existing five formulas and for the variables that have been discussed by the Executive Board.[10]

- The data are drawn mainly from *International Financial Statistics* (*IFS)* and the *World Economic Outlook* (*WEO)*. Missing data series are computed based on the

[8] See *IMF Executive Board Discusses Quota Distribution Issues*, PIN No. 03/106, August 29, 2003.

[9] See *Quotas—Updated Calculations* (SM/04/305, 8/30/04). Data through 2002 were used in the calculations. The previous calculations used data through 1999.

[10] See Appendix III for details on the five existing formulas. The data obtained cover current receipts and net capital flows (1991–2003), current payments (1999–2003), GDP (2001–03), and reserves (monthly data for 2003), all in SDRs.

Country Desk Data database, staff reports, and in a few instances, data from the Eleventh Quota Review.[11]

- As in the earlier papers, some data adjustments such as exclusion of goods for processing, international banking interest, and official transfers from current account data have not been made.[12]

13. **The existing five formulas were used with the updated data set to estimate calculated quotas and quota shares for all members**. The results for country groups and for individual members are shown in Table 1 and Table A3, respectively.

14. **In general, the calculated quota shares for the main country groups are broadly similar to those presented previously using data through 2002.**[13] The share of the advanced economies declines by about one percentage point, but remains well above their actual quota share (Table 1). The calculated quota share of developing countries as a group increases, reflecting a further increase for the Asian economies, whose aggregate share in calculated quotas exceeds their share in actual quotas by a wide margin. The converse is true for the other three main regional sub-groups, as well as for the transition economies.

15. **The data set through 2003 was also used to update information on the group of countries that had actual quota shares significantly out of line with calculated quota shares.** The criterion used for determining this group was based on the ratio of each member's calculated to actual quota share using the existing five formulas.[14] Preliminary calculations using the updated data set indicate that there are 16 countries whose calculated quota shares exceed actual quota shares by more than 50 percent.[15] This criterion has been considered relevant in the past in identifying members whose actual quota shares were regarded as being most seriously out of line.[16]

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[11] For details of compilation and composition of the data, see Appendix IV.

[12] These adjustments have been made only in the context of Quota Reviews. For details on past adjustments, see Annex I in *Alternative Quota Formulas—Considerations* (SM/01/293, 9/27/01).

[13] See *Quotas—Updated Calculations* (SM/04/305, 8/30/04).

[14] See *Eleventh General Review of Quotas—Preliminary Quota Calculations* (EB/CQuota/95/1, 8/10/95), pp. 20–23. See also *Alternative Quota Formulas—Further Considerations* (SM/02/132, 5/6/02), pp. 26–27.

[15] The 16 members are Bahrain, Botswana, China, Equatorial Guinea, Estonia, Ireland, Korea, Luxembourg, Malaysia, Mexico, Oman, San Marino, Singapore, Thailand, Timor-Leste, and United Arab Emirates.

[16] In comparison, out-of-lineness was measured using the 16 different formula variants in the 2002 Board paper on quota issues. Actual quota shares were consistently among the lowest relative to calculated quota shares for a small group of members. These eight members were Bahrain, Botswana, Ireland, Korea, Luxembourg, Singapore, Thailand, and Turkey. See *Alternative Quota Formulas—Further Considerations* (SM/02/132, 5/6/02), pp. 26–27

16. **In sum, the results of updating the data set do not alter the broad conclusions reached in earlier papers.** Quota adjustments based on a metric that uses the economic and financial variables and weights that have been considered broadly appropriate by the Board in the past would imply a larger quota share for the economies in Asia, which has been widely recognized as an issue. However, this would tend to come at the expense of the other regional sub-groups of developing economies, and the quota share of developing and transition economies as a whole would tend to decline while that of the advanced economies would increase. This suggests that an alternative mechanism would need to be found if the Board considered that an increase in the share of developing and transition economies was desirable. Given this, and the Fund's current and prospective near-term liquidity situation, the next section considers the options for adjusting quotas and voting power outside of a general increase.

IV. Options for Adjustments in Quotas and Voice

17. **The Fund's Articles of Agreement specify several principles that govern any adjustment of quotas.** First, "[t]he Board of Governors shall at intervals of not more than five years conduct a general review, and if it deems it appropriate propose an adjustment, of the quotas of the members." Second, the Board of Governors "may also, if it thinks fit, consider at any other time the adjustment of any particular quota at the request of the member concerned." (Article III, Section 2 (a)). Third, any change in quotas requires an 85 percent majority of the total voting power (Article III, Section 2 (c)). Fourth, the quota of a member may not be changed without that member's consent (Article III, Section 2 (d)).

18. **The Articles of Agreement do not explicitly reference how quotas should be adjusted or the role of quota formulas in the adjustment process.** In addition, the Executive Board has not formally adopted any specific formula in adjusting quotas. In principle, an agreement on a quota formula is not needed to adjust quotas. However, in practice, the Executive Board has found it useful to have an agreed measure of members' relative economic positions as a basis for allocating selective quota increases in the context of general reviews and for deciding on the eligibility for and amongst members for ad hoc quota increases.

19. **As is evident, the Fund's Articles provide for substantial flexibility in the adjustment of quotas.** Adjustments can take place at any time, in the context of and outside of general reviews. Such adjustments can be in either direction and the Board has flexibility in determining the basis for such adjustments. The constraining factors are the very high majority involved for any change in quotas, and the fact that a member's quota cannot be changed without the member's consent.

Table 1. Distribution of Quotas and of Updated Quota Formula Variables 1/

(In percent)

	Actual Quotas 2/	Existing Five Formulas (updated) 3/	Existing Five Formulas (previous) 4/	GDP 2001-03	Openness 5/ 1999-2003	Variability 6/ 1991-2003	Reserves 7/ 2003
Advanced economies	61.6	67.6	68.3	77.1	70.6	61.6	43.8
Major advanced economies	46.0	47.9	48.8	66.0	50.0	43.9	32.9
Of which: United States	17.4	17.2	17.8	31.8	16.2	20.1	3.3
Other advanced economies	15.6	19.6	19.5	11.1	20.6	17.8	10.9
Developing countries	30.9	27.7	27.0	19.9	24.8	31.6	48.6
Africa	5.5	2.3	2.3	1.5	1.9	3.7	3.2
Asia 8/	10.3	15.8	14.9	10.0	14.2	14.1	32.0
Middle East, Malta and Turkey	7.6	4.5	4.6	3.0	3.7	6.1	6.3
Western Hemisphere	7.5	5.1	5.2	5.4	5.1	7.7	7.1
Transition economies	7.5	4.7	4.7	3.1	4.5	6.8	7.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Finance and Statistics Departments.

1/ Individual country shares are provided in the Statistical Appendix. The variables shown here have been discussed recently by the Executive Board (see *Alternative Quota Formulas--Considerations* (SM/01/293, 9/27/01)).
2/ For the three countries that have not yet consented to, and paid for, their quota increases, Eleventh Review proposed quotas are used.
3/ Based on 1991-2003 data and computed as traditionally specified, except that current receipts and payments have not been adjusted for official transfers, reexports, and international banking interest.
4/ See *Quotas--Updated Calculations* (SM/04/305, 8/30/04), p.7.
5/ Average sum of current receipts and payments, not adjusted for official transfers, reexports, and international banking interest.
6/ Variability of current receipts and net capital inflows, measured as a standard deviation from centered three-year trend.
7/ Average international reserves in 2003 based on end-month data.
8/ Including Korea and Singapore.

20. **In practice, general quota increases have been the main vehicle for adjustments in members' quotas and quota shares.** General quota increases allow an adjustment of quota shares to take place in a situation where all members potentially benefit from an increase in their actual quotas, thereby helping facilitate achievement of the necessary voting majority. Moreover, adjustments in quota shares in the context of general reviews have been gradual (Table 2)**.** This reflects the fact that general quota increases have typically had a large equiproportional element, i.e., increases distributed in proportion to existing actual quota shares. As a result, general quota increases have shifted actual quota shares only slowly in the direction of calculated quota shares. Reflecting this, the "adjustment coefficient," which measures the extent to which deviations between actual and calculated quota shares are reduced by quota adjustments, has consistently been relatively low though it has varied significantly from review to review (from 1.7 percent to 28.0 percent since the Fifth Review).[17]

21. **The above discussion suggests that quota adjustments are possible outside of a general quota increase provided that the necessary high degree of consensus can be obtained.** In principle, significant adjustments in quota shares may be more readily facilitated in the context of a general quota increase, but in practice, adjustments in quota shares in general reviews have in any event been relatively gradual. Thus, the absence of a general increase need not constrain the ability of the Executive Board to agree on an adjustment in quota and voting shares designed to strengthen the Fund's governance structure. As discussed below, three broad avenues are available.[18]

A. Ad Hoc Quota Increases

22. **Ad hoc quota increases address the relative position of individual members.** These have been used relatively sparingly in the past, typically to address the most serious disparities in the quota distribution or to account for special circumstances. Ad hoc increases can take place within general quota increases or on a stand-alone basis. Ad hoc increases do not reduce other members' actual quotas but do reduce their actual quota shares. The magnitude of the impact on actual quota shares will depend on the size of the ad hoc adjustment(s).

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[17]A zero value of this measure implies no reduction in the deviation between actual and calculated quota shares while 100 percent would indicate a complete elimination of differences between actual and calculated quota shares. For more discussion on convergence over time of actual quotas toward calculated quotas, see *External Review of the Quota Formulas—Annex* (EBAP/00/52, Supplement 1, 5/1/00). See also *Quota Distributions—Selected Issues*, (SM/03/255, 7/17/03).

[18] Suggestions have also been made that issues of changes in the size and/or composition of the Executive Board should be part of the debate.

Table 2. Evolution of Quota Shares by Major Country Groups 1/

(In percent)

	Proposed Quota Shares					Actual Quota Shares
	1976	1978	1983	1990	1998	
	Sixth Review	Seventh Review	Eighth Review	Ninth Review	Eleventh Review	
Advanced economies	65.4	65.4	64.2	61.9	62.1	61.6
Major advanced economies	50.4	50.3	49.3	46.3	46.4	46.0
Of which: US	21.5	21.5	20.0	18.4	17.5	17.4
Other advanced economies	15.1	15.0	14.9	15.6	15.7	15.6
Developing countries	33.2	33.3	34.7	31.3	30.3	30.9
Africa	6.7	6.7	6.4	5.9	5.5	5.5
Asia 2/	10.2	9.6	10.5	9.3	9.6	10.3
Middle East, Malta & Turkey	6.7	7.3	8.9	8.1	7.7	7.6
Western Hemisphere	9.6	9.7	8.9	7.9	7.5	7.5
Transition economies	1.3	1.3	1.2	6.8	7.6	7.5
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: IFS and Finance Department.

1/ Includes countries that were members at the time of the Executive Board decision.
2/ Including Korea and Singapore.

23. **Since the early 1970s, ad hoc quota increases have been limited** (Box 3)**.** The Executive Board became less inclined to support ad hoc increases in quotas and generally concluded that such increases should normally be considered in the context of a general review of quotas. This position has reflected a general desire to effect changes in the ranking of quotas relatively slowly and to avoid unduly large and possibly temporary changes in the overall quota structure. Four ad hoc increases were agreed outside of general quota reviews to reflect special circumstances, while Japan received an ad hoc increase in the Ninth General Review. In the Eleventh General Review, however, the ad hoc component was 10 percent of the overall increase, of which 9 percent was distributed to 38 members with ratios of calculated to actual quota shares greater than one. Five members—Korea, Luxembourg, Singapore, Malaysia, and Thailand—whose quotas were farthest out of line and who were expected to be able to contribute to the Fund's liquidity over the medium term (all five were also participants in the NAB) received the remaining 1 percent of the overall increase.

24. **This experience suggests that ad hoc increases can play a role but may not of themselves be sufficient to address broader concerns about voice.** Recent ad hoc quota increases outside of a general review have only been agreed in situations involving a major change in a country's relationship with the Fund that has a bearing on its quota. Ad hoc increases also have been agreed in the context of general quota reviews for countries whose quotas are considered most out of line with their relative economic positions and to enhance the Fund's liquidity. These increases have generally been limited in number and scale, though a somewhat broader approach was agreed in the Eleventh Review. Such increases imply a reduction in quota share of all other members not receiving an ad hoc increase. Ad hoc increases could contribute to addressing concerns about voice as part of the Thirteenth General Review if the necessary broad consensus exists. This would also likely require agreement on a new quota formula to provide a common basis against which to assess the eligibility for and extent of ad hoc increases.

Box 3. Ad Hoc Increases in Fund Quotas

A. Outside a General Quota Review 1/

Member	**Year Resolution Adopted**	**Justification for Increase**
France	1946	Low initial level
Paraguay	1946	Low initial level
Egypt	1948	Low initial level
Iran	1948	Low initial level
Honduras	1952	Its quota was reduced at its request in 1948, but restored to the original amount in 1952.
Philippines	1958	Low initial level
Australia	1960	"Catch-up" to 1959 review
Chile	1960	"Catch-up" to 1959 review
Colombia	1960	"Catch-up" to 1959 review
Yugoslavia	1960	"Catch-up" to 1959 review
Egypt	1962	Export variability
Israel	1964	"Borderline" case associated with increases in the quotas for other members linked to the Compensatory Financing Decision of 1963
Malaysia	1964	"Borderline" case associated with increases in the quotas for other members linked to the Compensatory Financing Decision of 1963
Italy	1964	Improve Fund liquidity and comparability with quotas of other members
Lao People's Dem. Rep.	1969	"Catch up" to Fourth Review
China	1980	Change in representation
Saudi Arabia	1981	Improve Fund liquidity and comparability, taking account also of large past and prospective Fund borrowing with Saudi Arabia.
Cambodia	1994	Resumption of Fund relations
China	2001	Resumption of sovereignty over Hong Kong SAR

B. In the Context of General Reviews 2/

Member	**Year Resolution Adopted**	**Justification for Increase**
1959 Review 3/		
Canada	1959	Reflect economic position and ability to provide liquidity
Germany	1959	Reflect economic position and ability to provide liquidity
Japan	1959	Reflect economic position and ability to provide liquidity
Fourth Review 4/		
Austria	1965	Enhance the Fund's liquidity
Canada	1965	Enhance the Fund's liquidity
Germany	1965	Enhance the Fund's liquidity
Japan	1965	Enhance the Fund's liquidity
Sweden	1965	Enhance the Fund's liquidity
Ninth Review 5/		
Japan	1990	Reflect economic position (by redistributing G-7 quota shares so that other members shares were unaffected)
Eleventh Review	1998	10 percent of the overall increase, of which: (i) 9 percent distributed to 38 members with ratios of calculated to actual quota shares greater than one; and (ii) one percent distributed to five members (Korea, Luxembourg, Singapore, Malaysia, and Thailand) whose quotas were significantly out of line with their relative economic positions

1/ The first section of this box reproduces Table A.2. in *Quota Distribution—Selected Issues* (SM/03/255, 7/17/03). The quota increases shown here exclude the quota increases authorized under the small quota policy of 1955 and in connection with the 1963 Decision on Compensatory Financing of Export Fluctuations.
2/ Prior to the Eighth Review, when selective increases were allocated only to a subset of members, the distinction between selective and ad hoc elements was not clear cut.
3/ A group of 14 countries also received special quota increases in connection with the 1959 Review.
4/ Selective increases were authorized for 16 countries whose quotas were low relative to their economic positions, including the five industrial countries listed above.
5/ In addition, very small quotas were rounded up in multiples of SDR 0.5 million.

B. Voluntary Adjustments

25. **In some previous quota reviews, members have voluntarily accepted a reduction in their quota shares as part of the broader agreement on an overall quota increase.** In particular, such arrangements have helped to facilitate agreement on ad hoc increases for one or a group of members by limiting the impact of such increases on the broader membership. This has typically involved: (i) an overall increase in total quotas; and (ii) an agreement by a member or group of members to accept a lower increase than would otherwise have applied, including a smaller than equiproportional adjustment, in order to offset the effect of larger increases for some other members. Examples have included the reduction in quota share of the United Kingdom in the Fifth General Review, the agreement among the industrial countries in the Sixth General Review to accept a lower quota share in the context of larger increases for the major oil-exporting countries, and the agreement on a realignment of quota shares among the G-7 countries during the Ninth General Review (see Box 4).

26. **Agreement on a voluntary quota reduction by a member or a group of members could facilitate a broader adjustment in quota shares even in the absence of a general quota increase.** A key difference with the past would be that this would require some members to agree that their actual quotas would be reduced, thus giving these members an effective veto over a desired redistribution of quota shares.[19] Given that the economic and financial variables that have been considered reasonable for inclusion in a new quota formula tend to imply a higher calculated quota share for the advanced economies, as noted above, a broad political consensus on some redistribution of actual quotas relative to that implied by the traditional variables, may be needed. For example, a voluntary reduction in quotas among the advanced economies could facilitate an increase in aggregate quotas for developing and transition economies and/or mitigate the effects on their quota shares of quota adjustments for a sub-group of countries considered most seriously out of line. An important additional consideration in this context would be the impact on the Fund's liquidity, given that a redistribution of quotas in the absence of a general quota increase could imply a reduction in the Fund's usable currencies.

[19] All members have an effective veto over changes in their own quotas. But, on occasions in the past when individual members have not consented to an increase in their quotas, this has implied a larger quota share for the rest of the membership.

Box 4. Experience with Voluntary Adjustments

Voluntary reductions in quota shares by some members have helped facilitate agreement on requests for ad hoc increases for other members by limiting the impact of such increases on the broader membership. While voluntary reductions in quota shares, in practice, have taken place in the context of general quota increases, voluntary reductions in actual quotas could take place without a general quota increase if members agreed to such reductions.

An agreement by a member or group of members to voluntarily accept a lower quota share in the context of a general quota increase represents a willingness on the part of a member or group of members to give up a part of their potential quota increase. Examples of such voluntary reductions took place during the Fifth, Sixth, and Ninth General Reviews of quotas, and although facilitated by a general increase in quotas, these cases could shed light on the dynamics of such processes.

An agreement among a group of industrial countries during the Fifth General Review of Quotas resulted in a voluntary reduction in a member's quota share—the United Kingdom—in order to accommodate an increase in the quota shares of other members. The Group of Ten (G-10) industrial countries had agreed to a distribution of quota shares within the G-10, and as a result of that agreement, there were increases in quota shares of 78 members under the general review. Specifically, the quota shares of 78 members increased by amounts larger than the equiproportional increase, offset by an increase in the quota of the United Kingdom that was less than the equiproportional increase.

In the context of the Sixth General Review of Quotas, a similar agreement, as that for the G-10 during the Fifth Review, was reached among a larger group of industrial countries. In this case, the increase in the quota share of the major oil-exporting countries as a group was matched by a decline in the share of the industrial countries in total quotas.

Japan's request for an ad hoc increase within the Ninth Review was facilitated by agreement among the Group of Seven (G-7) countries to accept voluntary reductions in quota shares. There was a redistribution of quota increases among the G-7 to accommodate an ad hoc increase in the quota of Japan in such a manner that the quota increases for the rest of the membership were unaffected.

C. Basic Votes

27. **As noted above, the Board has previously discussed an increase in basic votes as one possible element of a package in the context of a general quota increase under the Thirteenth Review.** The Articles of Agreement (Article XII, Section 5) provide that each member shall have 250 "basic" votes plus one vote for each SDR 100,000 of quota. The absolute level of basic votes has not been changed since the Bretton Woods Agreement, with the result that the share of basic votes in total voting power has declined from 11 percent to just over 2 percent at present (Table 3). The declining role of basic votes is perceived by some as a weakening of the voice of small developing countries in the decision-making process within the Fund and the World Bank.[20]

[20] See *The IMF and the World Bank At Sixty*, Edited by Ariel Buira for the G24 Research Program, Anthem Press, 2005, pp. 15–16 and *Challenges to the World Bank and the IMF*, *Developing Country Perspectives*, Edited by Ariel Buira for the G24 Research Program, Anthem Press, pp. 14–17.

Table 3. Relative Importance of Basic Votes, 1945-Present

	Number of Members	Total Votes	Basic Votes	
			Number	Percent of Total
Schedule A 1/	45	99,390	11,250	11.3
1958	68	108,930	17,000	15.6
1965	101	179,928	25,250	14.0
1970	115	236,835	28,750	12.1
1976	132	319,714	33,000	10.3
1978	140	432,415	35,000	8.1
1983	145	646,415	36,250	5.6
1990	152	1,387,910	38,000	2.7
1998 2/	183	2,166,040	45,750	2.1
Present 2/ 3/	184	2,176,037	46,000	2.1

Source: Finance Department.

1/ Schedule A refers to Schedule A in the Articles of Agreement, as agreed at the Bretton Woods Conference in July 1944, which entered into force on December 27, 1945. Includes the votes of Denmark, whose initial quota was not specified in Schedule A and the former Soviet Union, which did not become a member of the Fund.
2/ Including countries whose voting power was/is suspended.
3/ Based on actual quotas as of end-April 2005.

28. **An increase in basic votes could be considered as one option to address concerns about voice in the Fund.** Various options have been examined in the past, including:

- Increasing the number of basic votes by the same fixed amount for all members. Under this approach, the smaller a member's quota relative to the Fund-wide average, the larger would be the proportionate increase in that member's voting power.

- Establishing the total number of basic votes as a fixed percentage of total quotas.

- Increasing the number of basic votes by a fixed amount, but only for members that belong to a particular category; e.g., small or developing countries.

29. **Any such change would require an amendment of the Articles, and the necessary broad support for such a change has not so far existed.** Proposals for changes in basic votes have traditionally been considered in the context of general quota reviews because increases in either quotas or basic votes affect total voting power and both require the same broad majority as is needed for an amendment of the Articles of Agreement. Most recently, an increase in basic votes as a means of enhancing the voice of developing countries

in the Fund's decision-making was discussed in the context of the Twelfth Review and again in July 2003.[21]

30. **An increase in basic votes could play a role in addressing issues of voice in the Fund in the absence of a general quota increase.** However, because the effect would be concentrated on the smaller members, it may not of itself be sufficient to address broader concerns about the relative voting power of groups of members. By way of illustration, the impact of restoring the level of basic votes to 5 or 10 percent of the total voting power on the shares of major country groups, without a change in quotas, is shown in Table A4.

V. CONCLUSIONS AND ISSUES FOR DISCUSSION

31. **This paper has sought to respond to the requests for further consideration of the issues of quotas and voice in the context of the Thirteenth General Review of Quotas.** Its main conclusions are summarized below.

32. **The results of updating the quota data base through 2003 do not significantly change the broad conclusions presented in earlier papers;** namely, that quota formulas using the economic and financial variables and weights that have been considered broadly appropriate by the Board in the past—including a substantial weight for GDP as the most important indicator of economic size—are likely to yield results that would tend to imply a larger quota share for the advanced economies and a smaller share for the developing and transition economies as a group, though it could involve a significant redistribution within that group.

33. **Agreement on a new quota formula remains an important objective.** Considerable progress was made in previous Board discussions towards agreement on a new formula that is simpler and more transparent than the traditional formulas, but views differed on the details of the variables to be included. Quota formulas measure members' relative economic positions and therefore represent a key metric for assessing issues relating to the distribution of quotas. Thus, agreement on a new formula will be an important element in future quota discussions. However, agreement on a new formula alone is unlikely to address broader questions regarding voice in the Fund, given the gradual nature of past quota adjustments and the results of updating the database for the key quota variables.

34. **In this context, Directors have previously seen considerable merit in a package approach that would include elements of benefit to the membership as a whole.** These discussions were couched within the framework of a general quota increase that would include a relatively large selective element, though most Directors have also considered that

[21] In *Alternative Quota Formulas—Further Considerations* (SM/02/132, 6/6/02), pp. 27–30 address the proposals by some Executive Directors to base voting power on a weighted average of quotas, populations, and basic votes; and alternatively to add a constant in the quota formulas. There was not broad support for these proposals and it was recognized that quota formulas should not be overloaded with too many objectives.

there was no need for a quota increase in view of the Fund's satisfactory liquidity position. Recent developments in the Fund's current and prospective liquidity position suggest that this picture remains broadly unchanged, as reported in a separate paper. This raises the question of the scope for addressing issues of the distribution of quotas and voting power without a general quota increase.

35. **The Fund's Articles provide for substantial flexibility in the adjustment of quotas.** Adjustments can take place at any time, in the context of or outside of a general review. The Board also has considerable flexibility in determining the basis for such adjustments. Thus, scope exists for addressing issues relating to the distribution of quotas and voting power without a general quota increase. This said, general quota increases have been the main vehicle for adjusting quotas in the past, and have the advantage of allowing adjustments in circumstances where all members receive some increase. Even in this situation, adjustments have been gradual and it has often been difficult to obtain the needed consensus. These difficulties could be compounded in the absence of a general quota increase, considering the need for some members to accept a reduction in their actual quotas. Thus, a strong political consensus on the needed adjustment would be essential, given that any quota adjustments require a near unanimity, and that no adjustments in individual member's quotas can take place without their consent.

36. **Three broad options exist for adjustments in quotas and voting power in the absence of a general increase.** Such options could be explored either individually or in combination as part of a package. The Board could consider ad hoc increases for selected countries whose quotas are most out of line. Such increases have been agreed in the past and could be accommodated without necessarily requiring a reduction in other members' actual quotas, although quota shares would decline for all other members. Voluntary adjustments among country groups or individual members are also an option. Such adjustments have been implemented in the past, though always in the context of general quota increases and not in situations where reductions in some members' actual quotas would be needed. The implications for the Fund's liquidity would also need to be considered. A third option is an increase in basic votes. This would affect the distribution of voting power—particularly for the Fund's smallest members—without an adjustment in quotas, but requires an amendment of the Articles, and may not of itself be sufficient to address broader concerns about relative voting power across the membership as a whole.

37. **To some extent, these options address two distinct but related issues;** namely, the need to ensure that the distribution of quotas adequately reflects developments in the world economy and the desire to strengthen the voice of developing and transition economies. Ad hoc quota increases for countries most out of line can and have played a role in addressing the former. However, strengthening the voice of developing and transition economies as a whole may require some additional elements, which could include voluntary adjustments in quotas and/or raising basic votes.

38. **In their discussion, Directors may wish to comment on the following issues:**

- How do Directors assess the overall scope for progress on the issues relating to the distribution of quotas and voting power in the Fund in the absence of a general quota increase?

- What options for addressing voice issues do Directors consider most promising, including the three options identified in this paper for adjustments in the absence of a general quota increase? Would Directors favor further staff work to explore proposals involving some combination of these options?

- Do Directors share the view that agreement on a new quota formula should be part of any adjustment in actual quotas, and how do they assess prospects for narrowing the remaining differences on this issue? Would they agree that further staff work on options for a new, simpler, and more transparent quota formula should be undertaken in parallel with exploration of the broader options for addressing issues of quotas and voice considered in this paper?

Evolution of the Size and Structure of the Executive Board

In line with the expectations of the drafters of the original Articles of Agreement in 1946 about the likely size of the membership of the Fund, Article XII, Section 3(b) called for an Executive Board of not fewer than 12 Executive Directors, of whom 5 were to be appointed by the members with the largest quotas, and 7 to be elected by the members not entitled to appoint Executive Directors.[22] Article XII, Section 3 (b), in its initial version, further specified as follows: "When governments of other countries become members, the Board of Governors may, by a four-fifths majority of the total voting power, increase the number of directors to be elected."

The large increase in Fund membership and related pressure to expand the size and/or alter the structure of the Board grew from some key historical currents: the process of decolonization and independence for countries in Africa and Asia in the 1950s and 1960s; the growth of new sources of economic dynamism, especially in Asia, in the 1970s and 1980s; and the move to embrace market systems by the CIS, Eastern European and Baltic countries in the 1990s. It also reflected the need to take into account the changes in the relative economic weight between countries that these currents often precipitated. The size of the Board, in terms of the total number of chairs, has doubled since 1946 (Table A1).

The Board grew gradually throughout the 1950s and 1960s, reflecting these forces, to stand at 20 chairs at the time of the Second Amendment of the Articles of Agreement in 1978. To reflect this evolution, Article XII, Section 3 (b) was changed in the Second Amendment, to specify an Executive Board of 20, with five Directors appointed by the five members having the largest quotas, and 15 to be elected by the other members.[23] Article XII, Section 3 (b), as amended in the Second Amendment, further provides that the Board of Governors may, by an 85 percent majority of the total voting power, increase or decrease the number of elected Executive Directors for any regular election, which is held every two years.

In 1972, in response to concerns expressed by the African members, an understanding was reached that there should be two African constituencies and Executive Directors. This understanding was reflected in the Report of the Executive Board to the Board of Governors on the Size and Structure of the Executive Board of July 25, 1972.[24] The Board of Governors

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[22] Furthermore, if the members entitled to appoint Executive Directors did not include the two members that made available the largest absolute amount of resources utilized by the Fund, on the average over the two preceding years, then these two members were required to appoint Executive Directors, see Article XII, Section 3 (b) (ii) and (c), initial version.

[23] Article XII, Section 3 (b) (ii) and (c), requiring two additional appointed Executive Directors, was amended to allow the respective members the option of not appointing an Executive Director and of participating instead in the election of Executive Directors.

[24] See paragraph 2, *Report of the Executive Board to the Board of Governors on the Size and Structure of the Executive Board,* in SM/72/154, Sup. 1, 7/25/72: " There was widespread support for the view that, if the large

(continued)

took note of the report—and thereby implicitly of this understanding—in the context of its decision on the Size and Composition of the Executive Board (Resolution No. 27-12, effective August 31, 1972). This understanding was confirmed at the time of the Second Amendment of the Articles, and has continued to apply for the regular elections of Executive Directors since then.[25]

The principles regarding the size and composition of the Board elaborated during the discussion on the Second Amendment have continued to guide the Board of Governors in particular cases where the size of the Board is an issue.[26] For instance, in 1978, Saudi Arabia became entitled to appoint an Executive Director, as it had become one of the two largest Fund creditors (under the provisions of Article XII, Section 3 (c)),[27] and in 1980, when China participated in the regular election for the first time in a number of years, following the clarification of the representation of China on the Boards of the Fund and the Bank, it had sufficient votes to elect its own individual Director. To accommodate this without upsetting

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number of countries in this area [Africa] were to elect only one Executive Director, the burden on him would be excessive, and he would be unable to give adequate attention to the interests of all members that elected him. Concern was expressed that this result would hinder the efficient conduct of the business of the Executive Directors, particularly when the interests of these members were involved. There was widespread support for the view that it was desirable that this large number of countries should have the opportunity to elect two Executive Directors under the present Articles."

[25] See Board of Governors Resolution No. 36-3, effective April 27, 1981: "[The Board of Governors] [r]esolved: (1) The Board of Governors reaffirms that the Fund, when determining the number of Executive Directors to be elected in each regular election of Executive Directors, shall continue to be governed by the objectives and considerations, including the desirability of broadly maintaining the existing geographical balance in the composition of the Executive Board, set forth in Section 2(a) of Chapter O, "Organizational Matters (Article XII and Schedules D and E)," in Part II, "Commentary", in *Proposed Second Amendment to the Articles of Agreement of the International Monetary Fund: A Report by the Executive Directors to the Board of Governors*."

[26] In the *Commentary* on the Second Amendment, it is stated: "...the Fund has been guided by the objectives of ensuring that the size of the Executive Board will contribute to the effective dispatch of its business, that a desirable balance will be maintained in the composition of the Executive Board, and that the size of constituencies will not place undue burdens on Executive Directors and hinder the efficient conduct of the business of the Board, that members will be as free as possible within the provisions of the Articles and the regulations for the elections to form the constituencies of their choice, and that a relative equilibrium will be achieved in the voting power of the constituencies electing Executive Directors." (Section 2(a) of Chapter O, "Organizational Matters (Article XII and Schedules D and E)," in Part II, "Commentary", in *Proposed Second Amendment to the Articles of Agreement of the International Monetary Fund: A Report by the Executive Directors to the Board of Governors (March 1976),* p. 64.)

[27] Saudi Arabia appointed an Executive Director until the 1992 regular election, when it ceased to be one of the Fund's two largest creditors, but it has elected its own individual Executive Director since then, see *International Monetary Fund: 1992 Regular Election of Executive Director—Issues for Consideration*, EB/CREED/92/1, 6/16/92, p. 4.

the previous outline of constituencies, the Board of Governors decided to increase the number of elected Executive Directors to 16, bringing the total number of chairs to 22.[28]

In 1992, to reflect the increase in membership in particular by the CIS and Eastern European countries, as well as by Switzerland, the Board of Governors agreed to increase the number of elected Executive Directors to 19.[29] That number has been maintained for the subsequent regular elections. With the five members with the largest quotas appointing Executive Directors, the total number of Executive Directors in the Board now stands at 24.

[28] Board of Governors Resolution No. 35-8, effective September 8, 1980.

[29] Board of Governors Resolution No. 47-19, effective September 22, 1992, based on a proposal by the Committee for the 1992 Regular Election of Executive Directors and a Report of the Executive Board to the Board of Governors on the 1992 Regular Election of Executive Directors, see EBD/92/200, 04/09/92, Annex I.

Table A1. Changes in the Number of Executive Directors in the Fund

Regular Election	Appointed	Elected	Total
1946	5	7	12
1947 (interim election)	5	8	13
1948 (interim election)	5	9	14
1952	5	11	16
1956	5	12	17
1958	6 1/	12	18
1960	5	13	18
1963 (interim election)	5	14	19
1964	5	15	20
1968	6 2/	14	20
1970	6 3/	14	20
1978	6 4/	15	21
1980	6 5/	16	22
1992	5	19	24

1/ Canada appointed an Executive Director under Article XII, Section 3 (c).
2/ Italy appointed an Executive Director under Article XII, Section 3 (c).
3/ Japan appointed an Executive Director upon becoming one of the five largest quota-holders with the effectiveness of its quota under the Fifth General Review.
4/ Saudi Arabia appointed an Executive Director under Article XII, Section 3 (c).
5/ Saudi Arabia appointed an Executive Director under Article XII, Section 3 (c).

Basic Information about Quotas

A Fund member's quota is broadly determined by its economic position relative to the economic positions of other members. Various economic factors are considered in determining changes in quotas, including GDP, current account transactions, and official reserves. When a country joins the Fund, it is assigned an initial quota in the same range as the quotas of existing members considered by the Fund to be broadly comparable in economic size and characteristics. Any changes in quotas require broad support, as they must be approved by an 85 percent majority.

Member's quotas are reviewed periodically. The five-yearly regular reviews of quotas established under the Fund's Articles are designed to meet several key objectives.[30] These include to ensure that the Fund continues to have sufficient resources to fulfill its responsibilities and that the distribution of quotas adequately reflects developments in the world economy. In this regard, the reviews conducted by the Executive Board have focused on key topics as follows:

- The role and size of the Fund;
- The adequacy of Fund resources and the need for a possible quota increase;
- The distribution of quotas including possible changes to quota formulas; and
- Governance and representation.

Quota Reviews

There are two main issues addressed in a general quota review: the size of an overall increase and the distribution of the increase among the members:

First, a general quota review allows the Fund to assess the adequacy of quotas both in terms of members' balance of payments financing needs and in terms of its own ability to help meet those needs. Of the twelve general reviews that have been conducted so far, five have concluded that no increase in quotas was needed.

Second, a general review allows for increases in members' quotas to reflect changes in their relative positions in the world economy. Ad-hoc quota increases outside general reviews have been rare in recent decades, although China was granted a higher quota in 2001 following its resumption of sovereignty over Hong Kong SAR.

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[30] The Articles of Agreement provide for General Reviews of Quotas by the Board of Governors at intervals of not more than five years (Article III, Section 2).

The last quota increase under a general review—the Eleventh—took effect in January 1999. The 45 percent overall increase reflected changes in the size of the world economy, the increased risk of financial crisis, and the rapid liberalization of trade and capital flows.

During the Twelfth General Review, the Executive Board discussed the role and size of the Fund and the adequacy of its resource base. It also considered the distribution of Fund quotas that would best reflect changes in the world economy, as well as measures to strengthen the governance structure of the institution. The Review was concluded on January 30, 2003 with no proposal by the Board of Governors to increase quotas.

The period of the Thirteenth General Review began after the conclusion of the Twelfth Review and is to be completed by January 30, 2008. The resolution concluding the Twelfth General Review indicated that the Executive Board intended, during the period of the Thirteenth General Review to monitor and assess the adequacy of Fund resources, to consider measures to achieve a distribution of quotas that reflects developments in the world economy, and to consider measures to strengthen the governance of the Fund.

Actual Quotas and Calculated Quotas

As noted actual quotas are assigned to members when they join the Fund based on their relative economic position in the world economy. The Board has usually relied on quota formulas as an independent measure of members' relative economic size. Typically, the quota resulting from the formulas—the calculated quotas—is different from the actual quota of a member and, in the most recent quota review, actual quotas were on average less than half of calculated quotas. However, quota formulas, though one element in determining actual quotas, in practice have had a limited role in this area and also in determining actual quota adjustments.

The shifts in actual quotas and quota shares during General Reviews have broadly reflected the differences in economic developments among members between the Reviews. Increases in members' quotas during general reviews typically consist of an equiproportional element and a selective element. The equiproportional element is distributed to all members according to their existing quota shares. The selective element is distributed to either all members or a subset of members. The selective element is used to attain a change in quota shares among members. For any overall increase in quotas, the larger the selective increase, the greater the redistribution of quota shares. In practice, the selective component has tended to be relatively small.

The distribution of selective quota increases has generally been based on calculated quotas. Calculated quotas have played a key role both in determining which countries are eligible for selective quota increases and in the distribution of selective quota increases. Since the Eighth Review (1983), the selective quota increases have been allocated to all members in proportion to their calculated quotas. However, large discrepancies between actual and calculated quota shares remain for certain members.

The extent to which distributions of calculated and actual quotas have converged over time for the membership as a whole can be approximated by the "convergence index," defined as 100 percent minus the aggregate of positive (or aggregate of negative) deviations of actual from calculated quota shares. According to this measure, until recently, quota adjustments have on average restored the convergence index to a level that prevailed just after previous general reviews.[31] (Table A4).

Most recently, under the Eleventh Review in 1998, 25 percent of the quota increase was selective. The quota formulas helped determine each member's share of the selective increase as follows: (1) 15 percent of the total increase (three-fifths of the selective element) was distributed to all members; (2) 10 percent of the total increase was distributed to those countries whose ratio of calculated to actual quotas was considered to be most "out of line" where out of line was defined as those countries with ratios of calculated to actual quotas above one. There were 38 members that met this criterion.

[31] For more discussion on convergence over time of actual quotas toward calculated quotas, or lack thereof, see *External Review of the Quota Formulas—Annex* (EBAP/00/52, Supplement 1, 5/1/00).

The Original Bretton Woods Formulas and Impetus for Change

The original Bretton Woods formula was a single equation intended to provide a comprehensive measure of the relative size of a country's economy that took into account important differences in the economic structures of countries. The formula contained the following variables: (i) national income as a measure of a country's economic size and ability to contribute to Fund resources; (ii) reserves, also as a measure of a member's capacity to finance Fund operations, but with a smaller weight; (iii) merchandise imports as an indicator of possible need to use IMF resources; (iv) variability of exports with a high weight to reflect vulnerability to external trade shocks that could lead to a need for financing; and (v) a multiplicative factor that increased the role of exports relative to national income in the determination of calculated quotas.

The Bretton Woods formula was revised and a number of alternative formulas were added in 1962/63. In order to increase the quotas of smaller primary commodity producing countries and to bring calculated quotas closer to actual quotas for most other countries, three main changes were made to the Bretton Woods formula: (i) the original coefficients were reduced by half to bring calculated quotas more in line with the sum of actual quotas; (ii) the measure of variability was modified to remove the rising trend in exports; and (iii) imports and exports were replaced with current payments and current receipts. The original variables were retained as Set I data, while the new variables were referred to as Set II data.

The revised Bretton Woods formula did not adequately capture the economic structure of smaller primary commodity producing countries. Therefore, four derivative formulas were developed that provided greater emphasis on trade and variability and reduced the role of national income and reserves. A member's calculated quota was determined as the larger of the Bretton Woods formula or the average of the two lowest calculated quotas from the derived formulas. In effect, a dual structure of ten formulas was utilized (i.e., five formulas based on two sets of data) with the larger countries relying primarily on the Bretton Woods formula and smaller, more open economies with highly unstable external sectors using the supplementary formulas.

The quota formulas were simplified and updated in 1981/82. These changes consisted of: (i) eliminating five of ten formulas by focusing on Set II data; (ii) replacing nominal income with GDP, which is viewed as a more comprehensive and readily available measure of national output; (iii) broadening the measure of reserves to include holdings of SDRs, ECUs, and IMF reserve positions and calculation of the holdings as a 12-month average rather than an end-of period total; and (iv) reducing the coefficient of variability in the four derivative formulas by 20 percent to moderate the impact of the very sharp increases in the prices of certain commodities, especially the increases in oil prices in 1973/74 and 1979. There have been no changes in the formulas since 1983, although the Executive Board considered proposals for changes, mostly in the variables to be included, on several occasions (Box A1).

Box A1. Existing Quota Formulas

Quota formulas have evolved over time. A formula that was used in 1944 as a basis for determining the broad configuration of the initial quota distribution became known as the Bretton Woods formula. This formula contained five variables: national income, official reserves, imports, export variability, and the ratio of exports to national income. A multi-formula approach was introduced in the early 1960s, when the Bretton Woods formula was supplemented with four other formulas containing the same basic variables but with larger weights for external trade and external variability. The quota formulas were last modified in the context of the Eighth General Review (1982/83) but their basic structure was retained (for a more comprehensive overview of quota formulas, see *Alternative Quota Formulas—Considerations*, Annex II, (SM/01/293, 9/27/01)).

The current five formulas, used from the Eighth to the Eleventh Reviews, are:

Bretton Woods: $Q_1 = (0.01Y + 0.025R + 0.05P + 0.2276VC)\ (1 + C/Y)$;

Scheme III: $Q_2 = (0.0065Y + 0.0205125R + 0.078P + 0.4052VC)\ (1 + C/Y)$;

Scheme IV: $Q_3 = (0.0045Y + 0.03896768R + 0.07P + 0.76976VC)\ (1 + C/Y)$;

Scheme M4: $Q_4 = 0.005Y + 0.042280464R + 0.044\ (P + C) + 0.8352VC$;

Scheme M7: $Q_5 = 0.0045Y + 0.05281008R + 0.039\ (P + C) + 1.0432VC$;

where:

Q_1, Q_2, Q_3, Q_4 and Q_5 = Calculated quotas for each formula;

Y = GDP at current market prices for a recent year;

R = twelve-month average of gold, foreign exchange reserves, SDR holdings and reserve positions in the IMF, for a recent year;

P = annual average of current payments (goods, services, income, and private transfers) for a recent five-year period;

C = annual average of current receipts (goods, services, income, and private transfers) for a recent five-year period; and

VC = variability of current receipts, defined as one standard deviation from the centered five-year moving average, for a recent 13-year period.

For each of the four non-Bretton Woods formulas, quota calculations are multiplied by an adjustment factor so that the sum of the calculations across members equals that derived from the Bretton Woods formula. **The calculated quota of a member is the higher of the Bretton Woods calculation and the average of the lowest two of the remaining four calculations** (after adjustment).

During the Eleventh General Review of Quotas, concern was expressed that the current quota formulas did not reflect changes in the world economy, such as the growing role of emerging markets and the increased importance of international capital flows. As a result, the **Quota Formula Review Group (QFRG)** was convened in 1999 to provide the Executive Board with an independent review of quota formulas.[32] The QFRG reviewed the history of quota formulas and provided an analysis of possible variables that could be included in a revised formula.[33] The QFRG also suggested criteria for assessing proposals for changes in the formulas, notably a sound economic basis for variables, reflecting changes in the world economy, consistency with the multiple functions of quotas, and simplicity and transparency. Finally, the QFRG recommended a single formula with two variables: GDP as a measure of the ability to contribute resources to the Fund, and variability of current receipts and net long-term capital flows, as a measure of external vulnerability, with the GDP variable having the larger weight.

The staff commentary supported the objectives of the QFRG. The staff agreed in particular with the goal of simplicity and the use of variables that reflect the functions of quotas. Staff also supported the use of GDP, converted to a common base at market exchange rates, and a broader definition of variability to indicate potential vulnerability. However, staff expressed concern that the QFRG variability measure would not reflect vulnerability from short-term capital shocks. In addition, a partial quantification of the QFRG-recommended formula indicated a distribution of calculated quotas that most members would consider unacceptable. A subsequent, more comprehensive and updated quantification confirmed this preliminary calculation.

A wide divergence of views on the issues raised in the QFRG report and the staff commentary were expressed at the Executive Board seminar. Directors generally recognized the need to simplify the current formulas and to update them to take account of the growing role of capital flows. Concern was expressed, however, that the specific formula recommended by the panel pointed toward a greater concentration of quotas among the largest industrial countries.

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[32] The eight-member panel, chaired by Professor Richard Cooper (Harvard University), was asked to review the quota formulas with respect to "their adequacy to help determine members quotas ... in a manner that reasonably reflects' members relative positions in the world economy as well as their relative need for and contributions to the IMF's financial resources, taking into account change in the functioning of the world economy and the international financial system in light of increasing globalization of markets.

[33] See *External Review of Quota Formulas* (EBAP/00/52, 5/1/00, Supplements 1 and 2, 5/1/00 and Supplement 3, 5/2/00) and *Staff Commentary on the External Review of Quota Formulas* (EBAP/00/66, 6/7/00). Further discussions based on follow up work by the staff have taken place at an Executive Board seminar in October 2001, and at a meeting in June 2002.See *IMF Executive Board Informally Discusses Quota Formulas*, PIN No. 01/118, November 7, 2001; and *IMF Executive Board Discusses Further Considerations in the Twelfth General Review of Quotas*, PIN No. 02/105, September 20, 2002.

During the October 2001 seminar, Directors considered that quota formulas should be simple and transparent, reflect the financial functions of quotas, and produce results that are broadly acceptable to the membership.[34] They supported the inclusion of GDP in quota formulas, as an indicator of countries economic size and their potential to either provide resources to the Fund or use Fund resources. Many Directors supported the use of an openness variable in the quota formulas to reflect countries' integration in the world economy, although a few Directors noted that current receipts and payments on the one hand, and GDP on the other hand, are highly correlated. Many Directors supported inclusion of a measure of variability in the quota formula to capture countries' potential need for Fund resources, and saw variability of external receipts as an appropriate measure, while some Directors considered that measures of openness could also be indicative of vulnerability.

In June 2002, Executive Directors reached understandings on broad principles for arriving at an alternative quota formula.[35] Specifically, there was general endorsement of a simpler and more transparent approach in specifying the variables in quota formulas. It was also agreed that variables included in the quota formulas should be indicators of members' economic position in the world. In this regard, the Board has also agreed to limit consideration to three or four variables used in existing quota formulas, but updated and modernized. These variables include GDP, a measure of openness, variability, and possibly international reserves. As noted, the Executive Board reaffirmed these broad conclusions in the July 2003 discussion on quota-related topics.

[34] See *IMF Executive Board Informally Discusses Quota Formulas*, PIN No. 01/118, November 7, 2001.

[35] See *IMF Executive Board Discusses Further Considerations in the Twelfth General Review of Quotas*, PIN No. 02/105, September 20, 2002.

Selection of the Database, Derivation of Quota Variables, and Other Issues[36]

This appendix discusses the required data, the selection of the database, and the derivation of the data series that were used for the quota calculations.

Required Data

The quantification of existing and alternative quota variables used in this paper requires the following data for 184 member countries (converted into SDRs as the common denominator):

- **GDP** (Gross Domestic Product), for three years (2001–03).
- **Current receipts** (goods, services, income, and current transfers)[37] for 13 years (1991–2003). Current receipts are defined as the credit component of all economic transactions between resident and nonresident entities other than those relating to financial transactions and reserves.
- **Current payments** (goods, services, income, and current transfers)[38] for five years (1999–2003). Current payments are defined as the debit component of all economic transactions between resident and nonresident entities other than those relating to financial transactions and reserves.
- **Net capital flows** for 13 years (1991–2003). Capital flows relate to cross-border transactions in all foreign financial assets and liabilities except reserve assets, Fund credit and loans, and exceptional financing.
- **Official reserves** (average over the 12 months of 2003), defined as the sum of foreign exchange, SDR holdings, reserve position in the Fund, and monetary gold valued at SDR 35 per fine troy ounce.

Errors and omissions have not been included in the measure of variability of current receipts and net capital inflows. In many analytical presentations of the balance of payments, errors and omissions are considered financing flows and included with short-term capital. However, errors and omissions are, by definition, a residual item, which reflects recording errors that

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[36] Balance of payments and GDP data for the updated quota calculations were compiled by STA in coordination with FIN. The STA team comprised Qi He, Paul Austin, Lisbeth Rivas, Olga Laveda, and Dwayne Raiford.

[37] Current transfers include both private and official transfers, unlike past quota calculations that excluded official transfers. The capital account (as defined in the fifth edition of the Fund's *Balance of Payments Manual*) is included here with the current account to improve data comparability across countries as many countries have difficulty in distinguishing current and capital transfers in their balance of payments systems.

[38] Ibid.

cannot be ascribed to any particular balance of payments category and staff does not believe that recording errors should be a factor in determining quotas. This is fully in line with the definition of capital flows in the balance of payments manual.

At the same time, Fund credit and loans, and exceptional financing have been excluded from the variability measure for the same reason that reserve changes have been excluded. Such transactions, including Fund borrowing, payment arrears, and debt forgiveness or rescheduling, represent exceptional measures undertaken to finance balance of payments needs. Exceptional financing flows are normally shown "below the line" because they are not autonomous transactions affecting the balance of payments position of a country. For these reasons, the staff believes that these transactions should not be included in the variability measure.

Along these same lines, changes in both reserve assets and liabilities should, in principle, be excluded from net capital flows so that only autonomous, and not financing, flows are captured. Data on transactions in reserve assets are available for most members in *IFS* and have been excluded from net capital flows. However, because of the continuing lack of data on reserve liabilities for many members (reserve liabilities are not a standard component in *BPM5*), changes in reserve liabilities have not been excluded from the measure of net capital flows in this paper.

Data Sources

The database containing the variables used in the quota calculations would ideally have the following attributes: it should be comprehensive; i.e., contains all required data—compiled in line with internationally accepted concepts and definitions—for all members; the data would be from official sources (central banks and national statistical agencies); and the data would be comparable (consistent and coherent) across time and countries. This would ensure similar treatment for all countries' data and facilitate the comparability of results in a transparent manner. It would also be helpful if the database could be updated without major additional use of staff resources.

As in past quota updates**,** the main source of data used in the quota calculations was the Fund's central macroeconomic database of country, regional, and global statistics. This database is managed by the Statistics Department (STA) for international statistical cooperation and publication purposes, and to support the Fund's surveillance and use of Fund resources functions. This database, which encompasses a number of component databases and is collectively known as the Economic Data Facility (EDF), embodies the application of general methodological guidelines for the compilation of economic and financial data. These guidelines promote international comparability and methodological continuity in the database over time. The database is used to compile the Fund publication—*International Financial Statistics (IFS)*.[39]

The *IFS* data are reported to STA by central banks and national statistical agencies, and are based on internationally consistent definitions, such as the fifth edition of the *Balance of Payments Manual (BPM5)* and the *1993 System of National Accounts (SNA)*. STA makes an effort to compile these data into long time series that are consistent across time and countries. However, gaps exist in some of the data. For instance, there are some missing data for GDP and for current account transactions for more recent years and, as in the past, current receipts and payments data for early years in the case of transition countries are not available. Also, for many members there are data gaps in the capital account of the balance of payments.

Missing observations were largely supplemented using the *World Economic Outlook* (*WEO*) database. The *WEO* data are provided primarily by the Area Departments through their consultations with member countries. In the Eleventh Review of Quotas, *IFS* data were supplemented by other official data and staff estimates obtained from area departments and Finance Department (FIN) staff estimates.

Although *WEO* data should reflect a presentation of the balance of payments that is consistent with the *BPM5*, the definition of balance of payments variables does not necessarily need to exactly conform to *BPM5* until such time as (a) national compilers have revised the respective country's balance of payments accounts or (b) the staff report for the country reflects the new definitions.

At the outset of the development of the database for the quota calculations, STA was aware that for some member countries there exist large differences between the *IFS* and the *WEO* data sets. As noted above, some of these differences are related to the use of different classification systems, i.e., use of a national presentation in *WEO* while the standardized *BPM5* presentation was reported to STA. In other cases, the *WEO* may have contained updated information that had not yet been transmitted to STA. In the same vein, it is possible that some of the historical data may have been updated in only one of the two sets of data. There were instances where *WEO* data were used to fill gaps in an *IFS* data set where there were large differences in the periods where data were reported for both datasets.

These data discrepancies between the two data sources may also have been influenced by the varying institutional, legal, and accounting contexts of data compilation across member countries (see Box A2). At this point in the work on alternative quota formulas, data differences between the *IFS* and *WEO* have not been addressed. In addition, the database for the quota calculations has not been reviewed by the Fund's Area Departments or by national authorities. The primary focus of the staff's work on quota formulas at this stage is the

[39]In this paper, the data drawn from the EDF are referred to as the *IFS* database, following the practice in past quota review papers.

exploration of the broad performance of the formulas, and not the derivation of accurate shares for each member country. While data discrepancies exist, they are not believed to be of magnitudes that would undermine the general assessment of the performance of the formulas at aggregate levels.

Data Availability and Adjustments

The bulk of Fund members that report balance of payments statistics to STA (157 of the 178) do so on the basis of the *BPM5*. Data were prepared for current receipts and payments and net capital inflows (as defined above). Where members reported comprehensive balance of payments statistics to STA, the data stored in the *IFS* database were used without any adjustment. When data were not available for some members for the timeframe required for the quota calculations, estimates were made largely on the basis of the *WEO*. The estimation technique, or gap filling, extrapolates from nearby non-zero data based on growth rates in comparable (but not necessarily identical) *WEO* series.[40] For members where neither *IFS* nor *WEO* data were available, FIN staff obtained data from Article IV staff reports, country desk data, and the Eleventh Review database.

The following sections describe for each of the data categories the general procedures employed by STA to construct the required database for the quota calculations.

Current Receipts and Payments

Goods and services transactions

Data reported by members and maintained in *IFS* were used for each country. Where there were data gaps after the latest year of reporting to STA, estimates were made by applying the growth rates derived from the *WEO* for the missing year(s) to the latest reported annual data (debits and credits). When the data gaps were in respect of years prior to the latest reported data to STA, the *WEO* data were inserted for those years to complete the series.

For credit transactions, the *IFS* database is the source of data for 178 members, with *WEO* growth rates applied to 83 of these where there were data gaps. *WEO* data were substituted completely in the case of 13 members, and no *IFS* or *WEO* data were available for 6 members. With respect to debit transactions, the *IFS* database is the source of data for 178 members, with *WEO* growth rates applied to 83 of these. *WEO* data were substituted completely for 7 members and no *IFS* or *WEO* data were available for 6 members.

[40] This method has been used to fill gaps for the purpose of publishing world and regional summary tables in the *Balance of Payments Statistics Yearbook (BOPSY),* Part 2, and was used in *External Review of Quota Formulas—Quantification* (EBAP/01/29, 4/13/2001).

Box A2. Methodological Issues

With regard to GDP data, the *System of National Accounts (1993 SNA)* extended the scope of GDP slightly, adding in some instances, production of goods for own final use as well as including capital formation on mineral exploration, computer software, and artistic originals. Typically, this has resulted in an increase in reported GDP levels of up to 5 percent. By the beginning of 2001, about 50 members had adopted the *1993 SNA* for reporting GDP data to the *IFS*. Some of them have revised historical data. The size of data inconsistencies across countries due to the revisions related to the *1993 SNA* is likely to be smaller than other differences related to known measurement problems with GDP (e.g., under coverage of surveys).

With regard to the current receipts and payments (goods, services, income, current transfers, and *BPM5's* capital account), the *BPM5* introduced changes in the conceptual presentation of balance of payments accounts. Broadly, the *BPM5* strives to make a clear distinction between transactions and other changes in the accounts—valuation, reclassification, and other adjustments. The latter are included among adjustment items affecting the international investment position (IIP). Also, the *BPM5* introduced a distinction between current and capital transfers to increase harmonization with the *SNA*. These methodologies have been only partially adopted by the membership, and it is not feasible to adjust the data so that they are defined consistently across countries. Data are taken as reported by member countries and the changes in methodology may have contributed to slight breaks in some series.

With regard to financial account transactions, the accuracy of financial account data in many countries, including those in the *IFS* database, is uneven and the data are generally less comprehensive than the other data used for the quota formulas. This reflects classification and practical difficulties encountered by countries in compiling the data. Financial account data, particularly on the private nonbank sector, are generally difficult and resource intensive to compile. The switch from data collection systems based predominantly on government and balance sheet records to systems (particularly surveys) incorporating large nonbank private sector transactions has been slow. Many countries are still in the midst of adapting their collection and recording systems to take account of changes in the composition and magnitude of financial transactions, including new instruments such as financial derivatives. Institutional and accounting requirements for data compilation differ markedly across countries (for example, a recent summary of country reporting practices with respect to direct investment documents the number of gaps in recording and differences in treatment),[1] and data availability on the private nonbank sector varies. In the *IFS*, in many instances, only aggregates and not component series are reported.

With regard to official reserves, the *Data Template on International Reserves and Foreign Currency Liquidity* has been approved as the benchmark for the reporting of data to the Fund on official reserves. The Operational Guidelines for the *Data Template*, issued in 2001, clarify existing concepts on international reserves and provide guidelines for reporting the data on a consistent basis across countries.

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[1] See *Foreign Direct Investment Statistics: How Countries Measure FDI, 2001*, (IMF/OECD, March 2003). In addition, individual country metadata for 54 of the countries that participated in the 2003 Survey of Implementation of Methodological Standards for Direct Investment has recently been posted on the Fund's website.

Income and current transfers

Data reported by members and maintained in *IFS* were used for each country. Where there were data gaps estimates were derived using *WEO* data series. As the *WEO* data for these series are available only on a net basis, the adjustment procedure involved adding the change in the balance on transactions from the *WEO* data to the STA data of the previous year—credits if *WEO* showed a net credit balance or debits if a net debit balance was shown. Where there were gaps in the data prior to the latest reported data to STA, the net credit or the net debit figures from *WEO* were substituted directly to estimate income and current transfers credits and debits, respectively.

For income and current transfers credit transactions, the *IFS* database is the source of data for 177 members, with the change from the *WEO* series applied to 77 of these. Net credit figures from *WEO* were substituted directly for 6 members, and no IFS or *WEO* data were available for 7 members. With respect to income and current transfers debit transactions, the source of data for 177 members was the *IFS*, and the net change from the *WEO* series was applied directly for 81 members. Net debit figures from *WEO* were substituted directly for 6 members, and no *IFS* or *WEO* data were available in the case of 7 members.

"Capital account" transactions [41]

The primary source for data on "capital account" transactions was the *IFS* data series. When *IFS* values were unavailable, the change in the *WEO* balance for that year was used to derive an estimate. The paucity of *IFS* "capital account" data may reflect the inclusion of capital transfers in current transfers by some members. In some cases, the use of the *WEO* data may have produced some duplication; i.e., use of *WEO* data for capital transfers, which may have been classified under current transfers in the *IFS* series.

For the "capital account" credit transactions, the *IFS* is the source of data for 171 members, with the data from the change in *WEO* applied to 10 of these. With regard to "capital account" debit transactions, the *IFS* was the source of data for 171 countries, with the data from the change in *WEO* applied to 72 of these.

Net capital flows

The primary source for data on net capital flows was the *IFS* financial account data provided by member countries to STA. When *IFS* values were unavailable, a *WEO* value was used to fill the gaps. The *IFS* database is the source of data for 171 members, with *WEO* data substituted for 72 of these members with some years of missing data. No *IFS* or *WEO* data were available for 13 members.

[41] "Capital account" (in quotation marks) refers to the capital account as defined in BPM5.

Official reserves

The data on official reserves—comprising monetary gold, SDR holdings, reserve position in the Fund, and foreign exchange holdings—were obtained from *IFS* with monetary gold valued at SDR 35 per fine troy ounce. In deriving annual average holdings of official reserves for 2003, the data for the 12 months of 2003 were summed and then divided by 12 (or by the number of months for which data were available).

Gross domestic product

The *IFS* and *WEO* databases provided GDP data for 181 members. The *IFS* database is the source of data for 132 members, *WEO* data were used for 17 members, and *WEO* growth rates were applied to the latest *IFS* data to estimate missing data for 32 members. GDP data for 11 members that are compiled and reported on a fiscal year basis were first adjusted to calendar year basis by recalculating the annual GDP as an average of the quarters of the fiscal year.

Valuation

The balance of payments and the GDP data series in U.S. dollars were converted to SDRs using period-average exchange rates.

Missing data series

In the case of Somalia, data for the various series were assumed unchanged from the Eleventh Review. For Bosnia-Herzegovina, current receipts data were estimated based on the Eleventh Review and the Country Desk Data database. For Eritrea, the Eleventh Review and the *WEO* database were used. For Liberia, data were estimated based on the country desk data database. For Iraq, the Marshall Islands, Micronesia, and Palau, the recent Article IV staff reports and the country desk data database were used. The data series for San Marino were estimated on the basis of the *IFS* database and recent Article IV staff reports. For Serbia-Montenegro, data from the *WEO* and country desk data databases and recent Article IV staff reports were used. For Turkmenistan and Uzbekistan, data were taken from the *WEO* database and the recent Article IV staff reports. The data series for Afghanistan and reserves data for Democratic Republic of Congo and Kiribati were computed using the recent Article IV staff reports. Lastly, Timor-Leste data were estimated based on the data in the recent Article IV staff report.

Balance of payments data prior to 2002 for Belgium were estimated as the difference between data for the Belgium–Luxembourg Economic Union and Luxembourg. For China, balance of payments data were adjusted for trade between the mainland and Hong Kong SAR based on *Direction of Trade* database.

Table A2. Data Used for Quantification of Quota Formulas

(In SDR millions)

	Actual	GDP		Reserves	Current Payments	Current Receipts	Current Receipts plus Current Payments	Variability of Current Receipts	Variability of Current Receipts plus Net Capital Flows
			Average	12-month Average	Average				
	Quota 1/	2003 2/	2001-2003	2003 2/	1999-2003 2/	1999-2003 2/	1999-2003	1991-2003 2/	1991-2003
United States	37,149	7,866,610	7,973,794	59,456	1,309,522	992,062	2,301,584	44,833	65,530
Japan	13,313	3,069,725	3,136,117	390,893	363,150	443,357	806,507	23,513	17,535
Germany	13,008	1,717,913	1,569,822	40,524	606,570	617,171	1,223,740	16,440	23,392
France	10,739	1,258,420	1,135,536	24,008	353,809	369,768	723,577	11,757	11,070
United Kingdom	10,739	1,283,808	1,205,585	28,004	494,636	471,171	965,807	17,314	11,271
Italy	7,056	1,049,632	940,762	26,217	288,195	285,420	573,615	9,337	6,891
Saudi Arabia	6,986	152,173	147,312	15,922	51,814	61,291	113,105	7,114	3,444
Canada	6,369	619,747	583,273	25,744	243,673	256,680	500,353	11,127	7,255
China	6,369	1,161,496	1,118,474	256,612	374,342	382,998	757,340	9,031	13,441
Russia	5,945	307,481	271,612	41,885	73,649	97,264	170,913	8,180	6,357
Netherlands	5,162	366,526	330,626	8,455	230,712	237,863	468,575	7,437	6,095
Belgium	4,605	217,550	195,340	8,091	168,525	177,033	345,557	6,832	4,329
India	4,158	412,181	388,856	58,445	64,877	65,848	130,725	2,439	2,460
Switzerland	3,459	230,057	213,434	33,010	123,909	145,751	269,660	3,559	3,997
Australia	3,236	363,828	317,779	18,557	84,712	71,329	156,041	4,150	3,465
Spain	3,049	599,515	521,584	20,220	179,357	171,068	350,425	5,069	6,105
Brazil	3,036	361,539	372,276	32,912	67,269	55,874	123,143	2,474	5,793
Venezuela	2,659	59,709	75,998	9,213	17,895	23,124	41,018	3,178	2,004
Mexico	2,586	456,628	482,017	38,983	149,641	139,040	288,681	6,419	6,453
Sweden	2,396	215,575	191,588	13,364	92,906	100,885	193,791	4,877	3,885
Argentina	2,117	92,646	127,542	8,621	28,638	27,553	56,191	1,694	3,467
Indonesia	2,079	148,917	131,153	23,346	46,087	51,474	97,561	3,687	3,292
Austria	1,872	180,836	162,968	6,747	95,901	93,264	189,165	2,572	2,458
South Africa	1,869	118,266	98,896	4,617	30,659	30,278	60,937	1,110	1,780
Nigeria	1,753	39,782	36,673	5,210	14,730	17,261	31,991	2,911	2,513
Norway	1,672	157,705	145,996	24,155	48,494	65,619	114,113	4,051	3,590
Denmark	1,643	151,745	136,653	23,519	67,627	70,750	138,377	4,916	3,666
Korea	1,634	434,753	411,896	95,411	148,617	157,286	305,903	8,510	7,644
Iran	1,497	92,678	159,931	15,380	18,318	23,252	41,570	2,354	912
Malaysia	1,487	74,160	72,260	27,171	75,760	83,060	158,820	4,892	3,401

Table A2. Data Used for Quantification of Quota Formulas (continued)

(In SDR millions)

	Actual Quota 1/	GDP		Reserves	Current Payments	Current Receipts	Current Receipts plus Current Payments	Variability of Current Receipts	Variability of Current Receipts plus Net Capital Flows
			Average	12-month Average	Average				
		2003 2/	2001-2003	2003 2/	1999-2003 2/	1999-2003 2/	1999-2003	1991-2003 2/	1991-2003
Kuwait	1,381	29,845	27,923	5,938	12,015	19,646	31,661	2,525	1,696
Ukraine	1,372	35,312	32,400	4,085	16,182	17,771	33,953	1,158	1,841
Poland	1,369	149,756	147,850	22,244	49,975	44,376	94,350	2,390	2,984
Finland	1,264	115,718	104,185	6,976	40,042	46,509	86,551	2,008	1,901
Algeria	1,255	47,329	44,553	20,557	10,355	15,146	25,501	2,043	1,470
Iraq	1,188	8,449	11,730	811	10,081	10,834	20,914	1,763	836
Libya	1,124	18,047	18,382	12,327	6,846	9,408	16,255	1,446	1,079
Thailand	1,082	102,195	96,952	27,377	57,796	64,220	122,016	3,098	3,252
Hungary	1,038	59,179	50,009	9,207	34,891	31,593	66,484	1,075	1,590
Pakistan	1,034	63,622	59,190	7,153	11,326	12,749	24,075	612	786
Romania	1,030	40,984	35,979	5,070	13,664	12,282	25,946	523	511
Turkey	964	171,358	142,377	21,564	47,823	45,304	93,127	2,897	5,185
Egypt	944	51,012	64,091	9,569	16,521	16,705	33,226	857	1,001
Israel	928	78,799	82,839	17,367	39,437	38,832	78,269	2,153	2,004
New Zealand	895	55,959	47,310	2,960	17,864	16,156	34,020	731	916
Philippines	880	56,711	57,304	9,771	31,576	34,947	66,523	2,330	1,841
Portugal	867	105,250	95,237	5,871	43,357	37,451	80,808	1,297	1,157
Singapore	863	65,299	67,008	62,333	125,164	138,763	263,927	9,217	7,527
Chile	856	52,451	52,754	11,269	19,557	19,028	38,584	952	1,151
Ireland	838	108,750	94,306	2,767	104,385	104,209	208,594	8,680	9,478
Greece	823	123,849	106,378	3,566	35,578	29,751	65,330	1,308	2,907
Czech Republic	819	64,642	56,473	17,914	36,972	34,363	71,335	1,012	1,601
Colombia	774	57,160	61,548	7,528	14,101	13,790	27,891	606	873
Bulgaria	640	14,253	12,320	3,722	7,192	6,471	13,663	265	421
Peru	638	43,312	43,041	6,954	8,953	7,938	16,891	394	815
United Arab Emirates	612	56,806	52,193	10,428	35,770	40,299	76,070	3,128	2,079
Morocco	588	31,260	28,588	8,361	10,883	11,505	22,388	341	427
Bangladesh	533	36,953	37,433	1,537	7,565	7,753	15,318	240	214
Congo, Dem. Republic of	533	6,522	6,266	69	1,329	1,532	2,861	222	282
Zambia	489	3,147	2,851	317	1,268	1,173	2,442	160	196

Table A2. Data Used for Quantification of Quota Formulas (continued)

(In SDR millions)

	Actual Quota 1/	GDP 2003 2/	GDP Average 2001-2003	Reserves 12-month Average 2003 2/	Current Payments Average 1999-2003 2/	Current Receipts Average 1999-2003 2/	Current Receipts plus Current Payments Average 1999-2003	Variability of Current Receipts 1991-2003 2/	Variability of Current Receipts plus Net Capital Flows 1991-2003
Serbia / Montenegro	468	14,743	11,978	2,544	4,642	1,387	6,029	308	162
Sri Lanka	413	13,038	12,728	1,390	5,967	5,671	11,638	226	197
Belarus	386	12,743	11,240	428	7,017	6,813	13,829	643	324
Ghana	369	5,539	4,621	581	2,882	2,761	5,642	167	192
Kazakhstan	366	21,454	19,017	2,737	9,081	8,566	17,647	803	1,189
Croatia	365	20,589	17,932	4,878	10,025	9,150	19,175	380	438
Slovak Republic	358	23,352	19,492	7,252	14,127	13,302	27,429	934	923
Zimbabwe	353	5,435	11,353	0	2,033	1,630	3,663	143	82
Trinidad and Tobago	336	7,687	7,324	1,544	3,307	3,664	6,971	280	205
Vietnam	329	30,542	27,771	4,137	15,186	15,241	30,427	592	340
Cote d'Ivoire	325	10,040	9,168	1,489	4,081	4,193	8,273	290	152
Sudan	315	12,393	10,863	426	2,623	2,046	4,669	124	121
Uruguay	307	8,000	10,687	926	3,128	2,948	6,076	201	539
Ecuador	302	17,401	15,466	632	5,879	5,765	11,644	279	1,081
Syrian Arab Republic	294	70,818	68,782	29	5,243	5,981	11,224	388	258
Tunisia	287	17,871	16,611	1,871	8,537	8,034	16,571	237	314
Angola	286	9,854	8,188	466	6,408	5,999	12,406	2,029	1,402
Luxembourg	279	18,786	16,840	155	60,261	61,739	122,000	3,094	1,383
Uzbekistan	276	6,638	7,610	1,186	2,716	2,803	5,518	555	995
Jamaica	274	5,824	6,239	896	4,091	3,602	7,693	107	200
Kenya	271	10,277	9,501	913	3,007	2,958	5,966	109	150
Qatar	264	14,602	14,586	1,727	6,435	9,017	15,452	655	548
Myanmar	258	6,772	6,506	379	2,193	2,101	4,293	152	128
Yemen, Republic of	244	8,112	7,856	3,410	3,425	3,961	7,387	1,141	925
Slovenia	232	19,837	17,443	5,485	10,040	9,843	19,883	338	254
Dominican Republic	219	11,825	15,157	271	8,635	9,119	17,754	544	394
Brunei Darussalam	215	3,255	3,237	64	2,266	4,137	6,403	399	514
Guatemala	210	17,708	17,395	1,850	4,995	4,224	9,219	125	228
Panama	207	9,195	9,316	878	7,250	6,875	14,125	472	396
Lebanon	203	12,898	13,113	8,368	7,567	1,678	9,246	143	507

Table A2. Data Used for Quantification of Quota Formulas (continued)

(In SDR millions)

	Actual Quota 1/	GDP 2003 2/	GDP Average 2001-2003	Reserves 12-month Average 2003 2/	Current Payments Average 1999-2003 2/	Current Receipts Average 1999-2003 2/	Current Receipts plus Current Payments Average 1999-2003	Variability of Current Receipts 1991-2003 2/	Variability of Current Receipts plus Net Capital Flows 1991-2003
Tanzania	199	7,361	7,420	1,236	1,826	2,005	3,831	177	55
Oman	194	15,511	15,621	2,367	7,211	8,436	15,646	976	450
Cameroon	186	10,685	8,921	451	2,327	2,148	4,475	128	172
Uganda	181	4,601	4,596	662	1,492	1,085	2,577	151	122
Bolivia	172	5,783	6,099	464	1,806	1,575	3,381	69	66
El Salvador	171	10,681	10,861	1,267	4,674	4,486	9,160	246	200
Jordan	171	7,115	7,145	3,395	5,073	5,385	10,458	146	253
Bosnia-Herzegovina	169	5,020	4,430	986	3,575	3,342	6,917	388	313
Costa Rica	164	12,500	12,797	1,176	6,695	6,107	12,802	342	267
Afghanistan, Islamic Republic	162	3,154	2,544	584	2,659	2,449	5,108	328	328
Senegal	162	4,582	4,002	507	1,706	1,544	3,251	73	71
Azerbaijan	161	4,792	4,593	496	2,437	1,900	4,337	142	191
Gabon	154	4,611	3,987	122	1,980	2,523	4,503	380	143
Georgia	150	2,854	2,663	134	1,126	938	2,064	72	81
Lithuania	144	13,121	11,156	1,978	5,851	5,208	11,058	416	280
Cyprus	140	9,402	8,304	1,987	4,883	4,603	9,486	158	270
Namibia	137	3,232	2,645	214	1,439	1,615	3,054	68	74
Bahrain	135	6,867	6,540	1,307	7,758	7,886	15,644	895	709
Ethiopia	134	5,229	4,962	654	1,614	1,621	3,235	981	884
Papua New Guinea	132	3,324	2,900	266	1,577	1,725	3,302	166	124
Bahamas, The	130	3,743	3,831	352	2,361	1,970	4,331	161	137
Nicaragua	130	3,127	3,064	339	1,831	1,433	3,265	49	94
Honduras	130	4,965	5,025	1,013	2,776	2,546	5,322	119	76
Liberia	129	311	390	1	200	142	342	14	12
Latvia	127	7,909	7,161	915	3,740	3,293	7,033	150	217
Moldova	123	1,536	1,334	194	987	914	1,901	127	98
Madagascar	122	3,913	3,622	287	1,133	1,000	2,133	98	123
Iceland	118	7,432	6,620	386	2,943	2,618	5,561	62	175
Mozambique	114	3,538	3,195	597	1,549	1,187	2,736	67	76
Guinea	107	2,597	2,486	1	800	736	1,536	53	51

Table A2. Data Used for Quantification of Quota Formulas (continued)

(In SDR millions)

		GDP		Reserves	Current Payments	Current Receipts	Current Receipts plus Current Payments	Variability of Current Receipts	Variability of Current Receipts plus Net Capital Flows
	Actual Quota 1/	2003 2/	Average 2001-2003	12-month Average 2003 2/	Average 1999-2003 2/	Average 1999-2003 2/	Average 1999-2003	1991-2003 2/	1991-2003
Sierra Leone	104	767	753	52	235	184	419	24	35
Malta	102	3,404	3,154	1,310	3,563	3,419	6,982	178	150
Mauritius	102	4,040	3,758	995	2,254	2,329	4,582	99	87
Paraguay	100	4,318	4,673	547	2,382	2,312	4,694	230	217
Mali	93	3,068	2,667	538	1,004	899	1,902	47	28
Suriname	92	706	626	76	424	372	796	59	65
Armenia	92	2,005	1,835	314	865	730	1,595	59	35
Guyana	91	537	520	190	677	618	1,295	113	90
Kyrgyz Republic	89	1,366	1,269	231	617	517	1,134	227	342
Cambodia	88	2,960	2,994	548	2,043	1,929	3,973	105	55
Tajikistan	87	1,111	959	72	761	738	1,499	143	206
Congo, Republic of	85	2,546	2,357	24	1,564	1,626	3,190	204	186
Haiti	82	2,018	2,417	53	988	942	1,930	73	82
Somalia	82	343	343	14	207	43	250	6	6
Rwanda	80	1,119	1,272	161	367	320	687	69	50
Burundi	77	430	479	51	125	124	249	35	23
Turkmenistan	75	8,416	6,852	1,912	2,128	2,287	4,415	344	188
Togo	73	1,285	1,141	140	604	495	1,099	53	45
Nepal	71	4,459	4,391	813	1,382	1,331	2,713	75	90
Fiji	70	1,817	1,521	254	850	846	1,697	66	32
Malawi	69	1,253	1,281	88	578	497	1,074	30	28
Macedonia, FYR	69	3,607	3,078	550	1,819	1,670	3,489	156	213
Barbados	68	2,090	2,038	496	1,266	1,155	2,421	32	55
Niger	66	1,724	1,558	59	429	379	808	33	42
Estonia	65	6,492	5,538	803	4,566	4,155	8,721	171	184
Mauritania	64	816	729	290	439	468	906	34	40
Botswana	63	2,979	3,747	3,845	2,469	2,853	5,322	201	205
Benin	62	2,543	2,225	379	668	582	1,250	17	29
Burkina Faso	60	3,026	2,582	241	598	444	1,042	66	51
Chad	56	1,904	1,595	146	797	477	1,274	42	59

Table A2. Data Used for Quantification of Quota Formulas (continued)

(In SDR millions)

	Actual Quota 1/	GDP	GDP	Reserves	Current Payments	Current Receipts	Current Receipts plus Current Payments	Variability of Current Receipts	Variability of Current Receipts plus Net Capital Flows
			Average	12-month Average		Average			
		2003 2/	2001-2003	2003 2/	1999-2003 2/	1999-2003 2/	1999-2003	1991-2003 2/	1991-2003
Central African Republic	56	933	837	91	299	204	504	15	26
Lao, People's Dem. Republic	53	1,374	1,388	144	488	420	908	25	44
Mongolia	51	849	833	228	674	561	1,235	32	35
Swaziland	51	1,395	1,153	186	1,240	1,184	2,424	34	50
Albania	49	4,418	3,704	658	1,444	1,317	2,761	151	88
Lesotho	35	794	644	305	665	573	1,238	49	34
Equatorial Guinea	33	1,855	1,650	110	1,961	1,844	3,804	112	86
Gambia, The	31	262	292	63	208	195	403	14	12
Belize	19	705	702	67	498	379	877	13	21
San Marino	17	790	735	57	1,183	1,147	2,330	62	78
Vanuatu	17	197	188	28	183	148	331	17	17
Djibouti	16	447	452	58	294	277	571	19	15
Eritrea	16	416	490	23	407	347	754	57	55
St. Lucia	15	506	514	76	368	310	678	11	11
Guinea-Bissau	14	171	161	97	77	117	193	47	39
Antigua and Barbuda	14	562	542	68	430	385	815	36	8
Grenada	12	332	313	65	252	216	468	11	11
Samoa	12	206	186	47	111	101	212	8	6
Solomon Islands	10	211	228	19	156	157	313	15	12
Cape Verde	10	608	521	60	325	285	609	8	20
Comoros	9	228	197	64	61	70	131	6	5
St. Kitts and Nevis	9	261	267	45	221	155	377	9	3
Seychelles	9	543	523	48	471	408	879	12	26
St. Vincent and the Grenadine:	8	269	273	44	189	161	350	6	9
Dominica	8	187	198	31	153	131	284	5	9
Maldives	8	494	493	109	423	384	807	10	8
Timor-Leste	8	240	268	44	210	225	435	49	33
Sao Tome and Principe	7	42	40	15	33	25	58	3	2
Tonga	7	119	112	20	88	83	170	6	8
Bhutan	6	488	442	260	233	228	460	13	13

Table A2. Data Used for Quantification of Quota Formulas (concluded)

(In SDR millions)

		GDP		Reserves	Current Payments	Current Receipts	Current Receipts plus Current Payments	Variability of Current Receipts	Variability of Current Receipts plus Net Capital Flows
	Actual		Average	12-month Average		Average			
	Quota 1/	2003 2/	2001-2003	2003 2/	1999-2003 2/	1999-2003 2/	1999-2003	1991-2003 2/	1991-2003
Kiribati	6	52	43	283	57	61	118	5	2
Micronesia, Fed. States of	5	166	175	71	123	116	239	12	11
Marshall Islands	4	75	78	26	58	72	131	5	3
Palau, Republic of	3	89	92	0	98	78	176	13	10

Source: Finance and Statistics Departments.

1/ For the three countries that have not yet consented to, and paid for, their quota increases, Eleventh Review proposed quotas are used.
2/ Traditional variables used in the existing five formulas.

Table A3. Quotas and Updated Variables by Member

(In percent unless otherwise noted)

	Actual Quotas 1/ (In millions of SDRs)	Actual Quota Shares	Existing Five Formulas 2/	GDP 2001-2003	Openness 3/ 1999-2003	Variability 4/ 1991-2003	Reserves 5/ 2003
United States	37,149.3	17.382	17.240	31.794	16.229	20.108	3.284
Japan	13,312.8	6.229	7.193	12.505	5.687	5.381	21.593
Germany	13,008.2	6.087	6.979	6.259	8.629	7.178	2.239
France	10,738.5	5.025	4.265	4.528	5.102	3.397	1.326
United Kingdom	10,738.5	5.025	5.669	4.807	6.810	3.458	1.547
Italy	7,055.5	3.301	3.460	3.751	4.045	2.114	1.448
Saudi Arabia	6,985.5	3.269	1.005	0.587	0.798	1.057	0.880
Canada	6,369.2	2.980	3.132	2.326	3.528	2.226	1.422
China	6,369.2	2.980	5.069	4.460	5.340	4.124	14.175
Russia	5,945.4	2.782	1.335	1.083	1.205	1.951	2.314
Netherlands	5,162.4	2.416	2.771	1.318	3.304	1.870	0.467
Belgium	4,605.2	2.155	2.202	0.779	2.437	1.328	0.447
India	4,158.2	1.946	1.069	1.551	0.922	0.755	3.229
Switzerland	3,458.5	1.618	1.626	0.851	1.901	1.226	1.823
Australia	3,236.4	1.514	1.091	1.267	1.100	1.063	1.025
Spain	3,048.9	1.427	2.099	2.080	2.471	1.873	1.117
Brazil	3,036.1	1.421	0.949	1.484	0.868	1.777	1.818
Venezuela	2,659.1	1.244	0.404	0.303	0.289	0.615	0.509
Mexico	2,585.8	1.210	1.861	1.922	2.036	1.980	2.153
Sweden	2,395.5	1.121	1.271	0.764	1.366	1.192	0.738
Argentina	2,117.1	0.991	0.388	0.509	0.396	1.064	0.476
Indonesia	2,079.3	0.973	0.734	0.523	0.688	1.010	1.290
Austria	1,872.3	0.876	1.096	0.650	1.334	0.754	0.373
South Africa	1,868.5	0.874	0.380	0.394	0.430	0.546	0.255
Nigeria	1,753.2	0.820	0.344	0.146	0.226	0.771	0.288
Norway	1,671.7	0.782	0.823	0.582	0.805	1.102	1.334
Denmark	1,642.8	0.769	1.042	0.545	0.976	1.125	1.299
Korea	1,633.6	0.764	2.225	1.642	2.157	2.346	5.271
Iran	1,497.2	0.701	0.356	0.638	0.293	0.280	0.850
Malaysia	1,486.6	0.696	1.317	0.288	1.120	1.044	1.501

Table A3. Quotas and Updated Variables by Member (continued)

(In percent unless otherwise noted)

	Actual Quotas 1/ (In millions of SDRs)	Actual Quota Shares	Existing Five Formulas 2/	GDP 2001-2003	Openness 3/ 1999-2003	Variability 4/ 1991-2003	Reserves 5/ 2003
Kuwait	1,381.1	0.646	0.324	0.111	0.223	0.520	0.328
Ukraine	1,372.0	0.642	0.248	0.129	0.239	0.565	0.226
Poland	1,369.0	0.641	0.658	0.590	0.665	0.916	1.229
Finland	1,263.8	0.591	0.539	0.415	0.610	0.583	0.385
Algeria	1,254.7	0.587	0.288	0.178	0.180	0.451	1.136
Iraq	1,188.4	0.556	0.232	0.047	0.147	0.256	0.045
Libya	1,123.7	0.526	0.203	0.073	0.115	0.331	0.681
Thailand	1,081.9	0.506	0.872	0.387	0.860	0.998	1.512
Hungary	1,038.4	0.486	0.424	0.199	0.469	0.488	0.509
Pakistan	1,033.7	0.484	0.179	0.236	0.170	0.241	0.395
Romania	1,030.2	0.482	0.171	0.143	0.183	0.157	0.280
Turkey	964.0	0.451	0.664	0.568	0.657	1.591	1.191
Egypt	943.7	0.442	0.234	0.256	0.234	0.307	0.529
Israel	928.2	0.434	0.570	0.330	0.552	0.615	0.959
New Zealand	894.6	0.419	0.214	0.189	0.240	0.281	0.164
Philippines	879.9	0.412	0.504	0.228	0.469	0.565	0.540
Portugal	867.4	0.406	0.488	0.380	0.570	0.355	0.324
Singapore	862.5	0.404	3.244	0.267	1.861	2.310	3.443
Chile	856.1	0.401	0.276	0.210	0.272	0.353	0.623
Ireland	838.4	0.392	1.607	0.376	1.471	2.908	0.153
Greece	823.0	0.385	0.415	0.424	0.461	0.892	0.197
Czech Republic	819.3	0.383	0.477	0.225	0.503	0.491	0.990
Colombia	774.0	0.362	0.195	0.245	0.197	0.268	0.416
Bulgaria	640.2	0.300	0.095	0.049	0.096	0.129	0.206
Peru	638.4	0.299	0.133	0.172	0.119	0.250	0.384
United Arab Emirates	611.7	0.286	0.613	0.208	0.536	0.638	0.576
Morocco	588.2	0.275	0.154	0.114	0.158	0.131	0.462
Bangladesh	533.3	0.250	0.100	0.149	0.108	0.066	0.085
Congo, Dem. Republic of	533.0	0.249	0.025	0.025	0.020	0.086	0.004
Zambia	489.1	0.229	0.022	0.011	0.017	0.060	0.017

Table A3. Quotas and Updated Variables by Member (continued)

(In percent unless otherwise noted)

	Actual Quotas 1/ (In millions of SDRs)	Actual Quota Shares	Existing Five Formulas 2/	GDP 2001-2003	Openness 3/ 1999-2003	Variability 4/ 1991-2003	Reserves 5/ 2003
Serbia / Montenegro	467.7	0.219	0.057	0.048	0.043	0.050	0.141
Sri Lanka	413.4	0.193	0.074	0.051	0.082	0.060	0.077
Belarus	386.4	0.181	0.110	0.045	0.098	0.100	0.024
Ghana	369.0	0.173	0.040	0.018	0.040	0.059	0.032
Kazakhstan	365.7	0.171	0.143	0.076	0.124	0.365	0.151
Croatia	365.1	0.171	0.132	0.072	0.135	0.134	0.269
Slovak Republic	357.5	0.167	0.219	0.078	0.193	0.283	0.401
Zimbabwe	353.4	0.165	0.026	0.045	0.026	0.025	0.000
Trinidad and Tobago	335.6	0.157	0.055	0.029	0.049	0.063	0.085
Vietnam	329.1	0.154	0.193	0.111	0.215	0.104	0.229
Cote d'Ivoire	325.2	0.152	0.062	0.037	0.058	0.047	0.082
Sudan	315.1	0.147	0.034	0.043	0.033	0.037	0.024
Uruguay	306.5	0.143	0.044	0.043	0.043	0.165	0.051
Ecuador	302.3	0.141	0.073	0.062	0.082	0.332	0.035
Syrian Arab Republic	293.6	0.137	0.113	0.274	0.079	0.079	0.002
Tunisia	286.5	0.134	0.101	0.066	0.117	0.096	0.103
Angola	286.3	0.134	0.192	0.033	0.087	0.430	0.026
Luxembourg	279.1	0.131	1.646	0.067	0.860	0.425	0.009
Uzbekistan	275.6	0.129	0.064	0.030	0.039	0.305	0.066
Jamaica	273.5	0.128	0.049	0.025	0.054	0.061	0.049
Kenya	271.4	0.127	0.038	0.038	0.042	0.046	0.050
Qatar	263.8	0.123	0.119	0.058	0.109	0.168	0.095
Myanmar	258.4	0.121	0.030	0.026	0.030	0.039	0.021
Yemen, Republic of	243.5	0.114	0.116	0.031	0.052	0.284	0.188
Slovenia	231.7	0.108	0.134	0.070	0.140	0.078	0.303
Dominican Republic	218.9	0.102	0.118	0.060	0.125	0.121	0.015
Brunei Darussalam	215.2	0.101	0.059	0.013	0.045	0.158	0.004
Guatemala	210.2	0.098	0.061	0.069	0.065	0.070	0.102
Panama	206.6	0.097	0.100	0.037	0.100	0.122	0.048
Lebanon	203.0	0.095	0.083	0.052	0.065	0.156	0.462

Table A3. Quotas and Updated Variables by Member (continued)

(In percent unless otherwise noted)

	Actual Quotas 1/ (In millions of SDRs)	Actual Quota Shares	Existing Five Formulas 2/	GDP 2001-2003	Openness 3/ 1999-2003	Variability 4/ 1991-2003	Reserves 5/ 2003
Tanzania	198.9	0.093	0.031	0.030	0.027	0.017	0.068
Oman	194.0	0.091	0.143	0.062	0.110	0.138	0.131
Cameroon	185.7	0.087	0.031	0.036	0.032	0.053	0.025
Uganda	180.5	0.084	0.023	0.018	0.018	0.037	0.037
Bolivia	171.5	0.080	0.022	0.024	0.024	0.020	0.026
El Salvador	171.3	0.080	0.064	0.043	0.065	0.061	0.070
Jordan	170.5	0.080	0.076	0.028	0.074	0.078	0.188
Bosnia-Herzegovina	169.1	0.079	0.063	0.018	0.049	0.096	0.054
Costa Rica	164.1	0.077	0.086	0.051	0.090	0.082	0.065
Afghanistan, Islamic Republic	161.9	0.076	0.050	0.010	0.036	0.101	0.032
Senegal	161.8	0.076	0.022	0.016	0.023	0.022	0.028
Azerbaijan	160.9	0.075	0.032	0.018	0.031	0.059	0.027
Gabon	154.3	0.072	0.045	0.016	0.032	0.044	0.007
Georgia	150.3	0.070	0.015	0.011	0.015	0.025	0.007
Lithuania	144.2	0.067	0.086	0.044	0.078	0.086	0.109
Cyprus	139.6	0.065	0.062	0.033	0.067	0.083	0.110
Namibia	136.5	0.064	0.019	0.011	0.022	0.023	0.012
Bahrain	135.0	0.063	0.146	0.026	0.110	0.218	0.072
Ethiopia	133.7	0.063	0.075	0.020	0.023	0.271	0.036
Papua New Guinea	131.6	0.062	0.027	0.012	0.023	0.038	0.015
Bahamas, The	130.3	0.061	0.033	0.015	0.031	0.042	0.019
Nicaragua	130.0	0.061	0.020	0.012	0.023	0.029	0.019
Honduras	129.5	0.061	0.036	0.020	0.038	0.023	0.056
Liberia	129.2	0.060	0.003	0.002	0.002	0.004	0.000
Latvia	126.8	0.059	0.046	0.029	0.050	0.067	0.051
Moldova	123.2	0.058	0.018	0.005	0.013	0.030	0.011
Madagascar	122.2	0.057	0.017	0.014	0.015	0.038	0.016
Iceland	117.6	0.055	0.033	0.026	0.039	0.054	0.021
Mozambique	113.6	0.053	0.020	0.013	0.019	0.023	0.033
Guinea	107.1	0.050	0.010	0.010	0.011	0.016	0.000

Table A3. Quotas and Updated Variables by Member (continued)

(In percent unless otherwise noted)

	Actual Quotas 1/ (In millions of SDRs)	Actual Quota Shares	Existing Five Formulas 2/	GDP 2001-2003	Openness 3/ 1999-2003	Variability 4/ 1991-2003	Reserves 5/ 2003
Sierra Leone	103.7	0.049	0.004	0.003	0.003	0.011	0.003
Malta	102.0	0.048	0.056	0.013	0.049	0.046	0.072
Mauritius	101.6	0.048	0.031	0.015	0.032	0.027	0.055
Paraguay	99.9	0.047	0.039	0.019	0.033	0.067	0.030
Mali	93.3	0.044	0.013	0.011	0.013	0.009	0.030
Suriname	92.1	0.043	0.008	0.002	0.006	0.020	0.004
Armenia	92.0	0.043	0.012	0.007	0.011	0.011	0.017
Guyana	90.9	0.043	0.015	0.002	0.009	0.028	0.010
Kyrgyz Republic	88.8	0.042	0.020	0.005	0.008	0.105	0.013
Cambodia	87.5	0.041	0.028	0.012	0.028	0.017	0.030
Tajikistan	87.0	0.041	0.017	0.004	0.011	0.063	0.004
Congo, Republic of	84.6	0.040	0.029	0.009	0.022	0.057	0.001
Haiti	81.9	0.038	0.014	0.010	0.014	0.025	0.003
Somalia	81.7	0.038	0.002	0.001	0.002	0.002	0.001
Rwanda	80.1	0.037	0.008	0.005	0.005	0.015	0.009
Burundi	77.0	0.036	0.003	0.002	0.002	0.007	0.003
Turkmenistan	75.2	0.035	0.045	0.027	0.031	0.058	0.106
Togo	73.4	0.034	0.009	0.005	0.008	0.014	0.008
Nepal	71.3	0.033	0.020	0.018	0.019	0.027	0.045
Fiji	70.3	0.033	0.013	0.006	0.012	0.010	0.014
Malawi	69.4	0.032	0.007	0.005	0.008	0.009	0.005
Macedonia, FYR	68.9	0.032	0.028	0.012	0.025	0.065	0.030
Barbados	67.5	0.032	0.016	0.008	0.017	0.017	0.027
Niger	65.8	0.031	0.006	0.006	0.006	0.013	0.003
Estonia	65.2	0.031	0.057	0.022	0.061	0.057	0.044
Mauritania	64.4	0.030	0.007	0.003	0.006	0.012	0.016
Botswana	63.0	0.029	0.057	0.015	0.038	0.063	0.212
Benin	61.9	0.029	0.009	0.009	0.009	0.009	0.021
Burkina Faso	60.2	0.028	0.009	0.010	0.007	0.016	0.013
Chad	56.0	0.026	0.009	0.006	0.009	0.018	0.008

Table A3. Quotas and Updated Variables by Member (continued)

(In percent unless otherwise noted)

	Actual Quotas 1/ (In millions of SDRs)	Actual Quota Shares	Existing Five Formulas 2/	GDP 2001-2003	Openness 3/ 1999-2003	Variability 4/ 1991-2003	Reserves 5/ 2003
Central African Republic	55.7	0.026	0.004	0.003	0.004	0.008	0.005
Lao, People's Dem. Republic	52.9	0.025	0.006	0.006	0.006	0.014	0.008
Mongolia	51.1	0.024	0.009	0.003	0.009	0.011	0.013
Swaziland	50.7	0.024	0.016	0.005	0.017	0.015	0.010
Albania	48.7	0.023	0.024	0.015	0.019	0.027	0.036
Lesotho	34.9	0.016	0.010	0.003	0.009	0.010	0.017
Equatorial Guinea	32.6	0.015	0.028	0.007	0.027	0.026	0.006
Gambia, The	31.1	0.015	0.003	0.001	0.003	0.004	0.003
Belize	18.8	0.009	0.006	0.003	0.006	0.006	0.004
San Marino	17.0	0.008	0.020	0.003	0.016	0.024	0.003
Vanuatu	17.0	0.008	0.003	0.001	0.002	0.005	0.002
Djibouti	15.9	0.007	0.004	0.002	0.004	0.005	0.003
Eritrea	15.9	0.007	0.008	0.002	0.005	0.017	0.001
St. Lucia	15.3	0.007	0.004	0.002	0.005	0.003	0.004
Guinea-Bissau	14.2	0.007	0.004	0.001	0.001	0.012	0.005
Antigua and Barbuda	13.5	0.006	0.007	0.002	0.006	0.002	0.004
Grenada	11.7	0.005	0.003	0.001	0.003	0.004	0.004
Samoa	11.6	0.005	0.002	0.001	0.001	0.002	0.003
Solomon Islands	10.4	0.005	0.003	0.001	0.002	0.004	0.001
Cape Verde	9.6	0.004	0.004	0.002	0.004	0.006	0.003
Comoros	8.9	0.004	0.001	0.001	0.001	0.001	0.004
St. Kitts and Nevis	8.9	0.004	0.003	0.001	0.003	0.001	0.002
Seychelles	8.8	0.004	0.006	0.002	0.006	0.008	0.003
St. Vincent and the Grenadine	8.3	0.004	0.002	0.001	0.002	0.003	0.002
Dominica	8.2	0.004	0.002	0.001	0.002	0.003	0.002
Maldives	8.2	0.004	0.005	0.002	0.006	0.002	0.006
Timor-Leste	8.2	0.004	0.006	0.001	0.003	0.010	0.002
Sao Tome and Principe	7.4	0.003	0.001	0.000	0.000	0.001	0.001
Tonga	6.9	0.003	0.001	0.000	0.001	0.003	0.001
Bhutan	6.3	0.003	0.004	0.002	0.003	0.004	0.014

Table A3. Quotas and Updated Variables by Member (concluded)

(In percent unless otherwise noted)

	Actual Quotas 1/ (In millions of SDRs)	Actual Quota Shares	Existing Five Formulas 2/	GDP 2001-2003	Openness 3/ 1999-2003	Variability 4/ 1991-2003	Reserves 5/ 2003
Kiribati	5.6	0.003	0.002	0.000	0.001	0.001	0.016
Micronesia, Fed. States of	5.1	0.002	0.002	0.001	0.002	0.003	0.004
Marshall Islands	3.5	0.002	0.001	0.000	0.001	0.001	0.001
Palau, Republic of	3.1	0.001	0.002	0.000	0.001	0.003	0.000

Source: Finance and Statistics Departments.

1/ For the three countries that have not yet consented to and paid for their quota increases, Eleventh Review proposed quotas are used.
2/ Based on 1991-2003 data and computed as traditionally specified, except that current receipts and payments have not been adjusted for official transfers, reexports, and international banking interest.
3/ Average sum of current receipts and payments, not adjusted for official transfers, reexports, and international banking interest.
4/ Variability of current receipts and net capital flows, measured as a standard deviation from centered three-year trend.
5/ Average international reserves in 2003 based on end-month data.

Table A4. Basic Votes and Voting Shares

	Current Quota	Quota-based	Current Basic Votes (250 each)			Basic Votes (5 percent of Total Votes) 1/			Basic Votes (10 percent of Total Votes) 1/		
	(In millions of SDRs)	Votes	Basic Votes	Total Votes	Voting share (In percent)	Basic Votes	Total Votes	Voting share (In percent)	Basic Votes	Total Votes	Voting share (In percent)
Advanced economies	131,634	1,316,344	6,500	1,322,844	60.6	15,886	1,332,230	59.2	33,566	1,349,910	56.8
Major advanced economies	98,372	983,720	1,750	985,470	45.1	4,277	987,997	43.9	9,037	992,757	41.8
Of which: US	37,149	371,493	250	371,743	17.0	611	372,104	16.5	1,291	372,784	15.7
Other advanced economies	33,262	332,624	4,750	337,374	15.5	11,609	344,233	15.3	24,529	357,153	15.0
Developing countries	65,969	659,692	32,500	692,192	31.7	79,430	739,122	32.9	167,830	827,522	34.8
Africa	11,739	117,389	12,750	130,139	6.0	31,161	148,550	6.6	65,841	183,230	7.7
Asia 2/	21,996	219,957	7,750	227,707	10.4	18,941	238,898	10.6	40,021	259,978	10.9
Middle East, Malta & Turkey	16,301	163,007	4,000	167,007	7.6	9,776	172,783	7.7	20,656	183,663	7.7
Western Hemisphere	15,934	159,339	8,000	167,339	7.7	19,552	178,891	8.0	41,312	200,651	8.4
Transition economies	16,116	161,156	7,000	168,156	7.7	17,108	178,264	7.9	36,148	197,304	8.3
Total	213,719	2,137,192	46,000	2,183,192	100.0	112,484	2,249,676	100.0	237,466	2,374,658	100.0

Source: Finance Department.

1/ Details may not add due to rounding.
2/ Including Korea and Singapore.