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Rearranging IMF Chairs and Shares: The Sine Qua Non of IMF Reform

EDWIN M. TRUMAN

The International Monetary Fund faces an identity crisis. The manifestation of the crisis is a total lack of consensus about the Fund's role in the world today. At the heart of that lack of consensus are issues of IMF governance. Many member governments feel that the IMF is not responsive to their needs and that they lack the voice and vote—the influence—to bring about change in the institution.

The IMF's most salient governance challenges are the lack of balance in the representation of countries on the Executive Board and in members' shares of voting power. These two issues are linked because the relative size of a member's IMF quota determines its relative voting power and relative voting power ultimately determines representation on the IMF Executive Board.

This paper addresses these two linked issues: chairs (representation on the IMF Executive Board) and shares (voting power).

With respect to chairs, I recommend improving the allocation of voices on the Executive Board by a sequence of steps leading to a combined EU seat.

*Edwin M. Truman is a senior fellow at the Institute for International Economics.**He is very grateful for the assistance of his colleague Anna Wong in the preparation of this chapter and for the comments of C. Fred Bergsten, Fritz Fischer, and Jacques Polak. He alone is responsible for any errors or views expressed.*

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With respect to shares, I advocate use of a revised, simplified formula as a benchmark for quota adjustments. The formula would be based on GDP measured on a purchasing power parity (PPP) basis and the variability of current receipts and net capital flows. I also recommend a convergence of the US and EU quota shares to 18 percent of the total. This convergence would free up 13 to 16 percentage points of today's quotas for reallocation to other members.

The US position is forward leaning on the issue of IMF chairs and shares, but it is unrealistic in proposing that EU countries voluntarily reduce the size of their IMF quotas. The issue of reallocation of voting shares and, therefore, fundamentally altering the allocation of chairs on the Executive Board is likely to be addressed effectively only in the context of an increase in the size of the Fund—an increase in total IMF quotas. This could be accomplished through a one-step or a two-step procedure, as I illustrate.

The IMF as an institution and its members will benefit from making substantial progress on these related issues, but that progress will require political leadership at the highest level in the systemically important countries. To achieve the public good of substantial improvement in the governance of the IMF and thereby restore the IMF's role as the preeminent institution of international financial cooperation, political compromises will have to be made. The appropriate locus to reach such a political deal is the Group of 20 (G-20) whose membership is those countries that have the largest stakes in the Fund and, therefore, the most responsibility for its reform.[1]

Chairs—Representation on the IMF Executive Board

Of the two related issues—chairs (representation on the IMF Executive Board) and shares (voting power)—it is easiest to imagine first making progress on chairs. The 24-member Executive Board of the International Monetary Fund is charged with the supervision of the activities of the institution. Each country with one of the five largest IMF quotas appoints a member;[2] the remaining governments form constituencies and elect an-

1. The current members of the G-20 are the G-7 countries (Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States), Australia, and 11 large emerging-market countries (Argentina, Brazil, China, India, Indonesia, Korea, Mexico, Russia, Turkey, Saudi Arabia, and South Africa), which I refer to as the LEMs. The 20th country is the one holding the EU presidency if it is not France, Germany, Italy, or the United Kingdom. Bergsten (chapter 13 of this volume) advocates a single seat on the G-20 for the European Union, converting it into an F-16. His argument is fully consistent with the position on consolidation of EU representation presented in this chapter and in chapter 2.

2. The five countries are France, Germany, Japan, the United Kingdom, and the United States.

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other 19 members.[3] The central issue is that many countries think that the industrial countries—principally the EU countries—are overrepresented on the Executive Board.

At present the 25 EU countries appoint or play a major role in the election of 10 of the 24 IMF executive directors, 42 percent of the Executive Board (see table 9.1).[4] In connection with these 10 seats, the EU currently supplies 6 executive directors and 8 alternate executive directors, 29 percent of the combined total. In 5 cases they supply both. The Executive Board traditionally reaches decisions via consensus rather than via formal voting. In this context, the European voices are too many; as a consequence their views tend to receive disproportionate weight in the consensus and they tend to have disproportionate influence with the IMF staff.

For this reason, Boyer and Truman (2005) and Truman (2005) advocate addressing the issue of IMF chairs as part of a process focused initially on the members of the IMF that are also members of the European Union. First, non-EU or non-aspiring-EU members would join other constituencies, and EU members that are now part of non-EU-majority constituencies—Ireland, Poland, and Spain—would join EU-majority constituencies.[5] As illustrated in table 9.2, Ireland would join the Dutch constituency, Poland would join the Belgian constituency, and Spain would rejoin the Italian constituency. Hypothetically, I have assumed that the non-EU-candidate countries that are currently members of EU-majority constituencies would join the Swiss constituency, raising its total voting power.

The result of this first step would be seven EU-majority constituencies, the same as today, with 35 percent of the voting power in the IMF.[6] Those seven constituencies by construction would have 7 executive directors

3. The original Executive Board had 12 seats representing 45 member countries. Its size was increased to 20 in 1964 when the Fund had 78 members and remained unchanged until 1978 when it was expanded to 21 members. It has had 24 members since 1992. Most of the adjustments in the size of the board were to accommodate new members without disrupting existing constituencies.

4. With respect to shares (voting power), EU members directly control 32 percent of the votes in the IMF. (The 10 members of the EU that joined in May 2004 have only 2.1 percent of the total.) Indirectly through the inclusion of non-EU countries in their constituencies they potentially influence an additional 12.5 percent for a total of almost 45 percent.

5. Serbia and Montenegro, along with Poland, is presently a member of the Swiss constituency. In the configuration suggested in table 9.2, Serbia and Montenegro would join the Dutch constituency. Note that currently the Dutch constituency with only 2 EU countries in a total of 12 is just barely an EU-majority constituency. The Netherlands and Cyprus have 59 percent of the 4.20 percent vote of the constituency. However, I treat 6 of the other 10 countries as EU-candidate countries; those with the largest share of IMF votes are Ukraine (0.64 voting share), Romania (0.48 voting share), and Bulgaria (0.31 voting share).

6. The expansive list of 12 EU-candidate members has 3.20 percent of IMF votes. In addition to the three listed in footnote 5, the other two largest are Norway (0.78 voting share) and Turkey (0.45 voting share).

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Table 9.1 Composition of IMF Executive Board, 2005

Constituency[a]	Voting share (percent)	Number of members: EU members	EU candidates[c]	Non-EU countries	Total
European Union[b]					
Germany	5.99	1	0	0	1
France	4.95	1	0	0	1
United Kingdom	4.95	1	0	0	1
Belgium	5.13	7	1	2	10
Netherlands	4.84	2	6	4	12
Italy	4.18	4	2	1	7
Norway[d]	3.51	6	2	0	8
Mexico	4.27	1	0	7	8
Canada	3.69	1	0	11	12
Switzerland	2.84	1	1	6	8
Subtotal (10)	44.35	25	12	31	68
Non-EU					
United States	17.08	0	0	1	1
Japan	6.13	0	0	1	1
Korea	3.33	0	0	14	14
Egypt	3.26	0	0	13	13
Saudi Arabia	3.22	0	0	1	1
Malaysia	3.17	0	0	12	12
Tanzania	3.00	0	0	19	19
China	2.94	0	0	1	1
Russia	2.74	0	0	1	1
Iran	2.47	0	0	7	7
Brazil	2.46	0	0	9	9
India	2.39	0	0	4	4
Argentina	1.99	0	0	6	6
Equatorial Guinea	1.41	0	0	24	24
Subtotal (14)	55.59	0	0	113	113
Total[e] (24)	**99.94**	**25**	**12**	**144**	**181**

a. Listed by the name of the country of the appointed or elected executive director, August 2005.

b. Constituencies that include one or more EU members.

c. EU candidates are those countries that are potential EU members (Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Macedonia, Romania, Serbia and Montenegro, Turkey, and Ukraine) or have close ties with EU members (Iceland, Norway, and San Marino).

d. This constituency now consists of six Nordic-Baltic EU members (Denmark, Estonia, Finland, Latvia, Lithuania, and Sweden), Iceland, and Norway, which currently occupies the executive director's seat with a Swedish national as the alternate.

e. This total does not include the votes of three countries: Liberia, Somalia, and Zimbabwe. Voting rights of Liberia and Zimbabwe have been suspended since 2003, and Somalia did not participate in the 2004 election of executive directors.

Source: IMF Executive Directors and Voting Power, available at the IMF Web site, www.imf.org.

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Table 9.2 Realigning the IMF Executive Board: Step one

Constituency[a]	Voting share (percent)	Number of members: EU members	EU candidates[c]	Non-EU countries	Total
European Union[b]					
Germany	5.99	1	0	0	1
France	4.95	1	0	0	1
United Kingdom	4.95	1	0	0	1
Belgium	5.41	8	1	0	9
Netherlands	4.83	3	7	0	10
Italy	5.58	5	2	0	7
Norway[d]	3.51	6	2	0	8
Subtotal (7)	35.22	25	12	0	37
Non-EU					
United States	17.08	0	0	1	1
Japan	6.13	0	0	1	1
Korea	3.33	0	0	14	14
Canada	3.29	0	0	11	11
Egypt	3.26	0	0	13	13
Saudi Arabia	3.22	0	0	1	1
Malaysia	3.17	0	0	12	12
Switzerland	3.00	0	0	13	13
Tanzania	3.00	0	0	19	19
China	2.94	0	0	1	1
Mexico	2.86	0	0	7	7
Russia	2.74	0	0	1	1
Iran	2.47	0	0	7	7
Brazil	2.46	0	0	9	9
India	2.39	0	0	4	4
Argentina	1.99	0	0	6	6
Equatorial Guinea	1.41	0	0	24	24
Subtotal (17)	64.74	0	0	144	144
Total[e] (24)	**99.97**	**25**	**12**	**144**	**181**

a. Listed by the name of the country of the appointed or elected executive director, August 2005.

b. Constituencies that include one or more EU members.

c. EU candidates are those countries that are potential EU members (Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Macedonia, Romania, Serbia and Montenegro, Turkey, and Ukraine) or have close ties with EU members (Iceland, Norway, and San Marino).

d. This constituency now consists of six Nordic-Baltic EU members (Denmark, Estonia, Finland, Latvia, Lithuania, and Sweden), Iceland, and Norway, which currently occupies the executive director's seat with a Swedish national as the alternate.

e. This total does not include the votes of three countries: Liberia, Somalia, and Zimbabwe. Voting rights of Liberia and Zimbabwe have been suspended since 2003, and Somalia did not participate in the 2004 election of executive directors.

Note: EU members Ireland, Poland, and Spain leave non-EU-majority constituencies and join the Netherlands, Belgium, and Italy, respectively. Serbia and Montenegro joins the Netherlands constituency as well. Non-EU members or non-EU-candidate members (Armenia, Belarus, Georgia, Israel, Kazakhstan, Moldova, and Timor-Leste) that are now in EU-majority constituencies join (hypothetically) the Swiss constituency.

Source: IMF Executive Directors and Voting Power, available at the IMF Web site, www.imf.org.

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(up from 6 today) and 7 alternate executive directors (down from 8 today) for a total of 14, the same as today. Today, however, with the possibility of alternate executive directors speaking for their constituencies, as many as 9 EU voices could be heard on any issue, and potentially as many as 10 EU voices. Thus, the EU voice would be muted a bit. In addition, the EU would be disassociated from about 9 percent of IMF voting power with which EU members are connected today.

Smoothly achieving this realignment would involve delicate political negotiations. The four countries that would be leaving non-EU-majority constituencies (Ireland, Poland, Spain, and Serbia and Montenegro) have 2.65 percent of IMF votes. In principle they could form their own constituency that would be larger than five other constituencies in the IMF (Iran, Brazil, India, Argentina, and Equatorial Guinea); see table 9.1. That would either disenfranchise those countries, including the 24 that are members of Equatorial Guinea's constituency today, or force those countries to join other constituencies while it would create an eighth EU-majority constituency. Moreover, the governments of Ireland, Poland, and Spain would have to make major political decisions to initiate this first step because they would stand to lose or reduce the opportunities for their nationals to serve as executive directors or alternate executive directors. As a consequence, they would only be likely to agree to take this first step in the context of an overall EU consensus on moving toward a more highly compacted EU representation in the Fund if not a single seat.

The second step in the realignment of chairs on the IMF Executive Board would involve, hypothetically, combining the Belgian and Dutch constituencies and the Italian and Norwegian (Nordic) constituencies; see table 9.3.[7] They would become very large with 19 and 15 members, respectively, with about 10.24 and 9.09 percent of total votes, respectively.[8] Greater emphasis could be placed on the coordination of an EU position within these constituencies. The important change would be the freeing up of two seats on the IMF Executive Board, two executive directors, and two alternates. As long as the total size of the IMF Executive Board remained at 24, two new constituencies could be formed. A reasonable outcome would be that one new constituency would be formed from the two economically powerful East Asian constituencies currently chaired by Korea (14 countries) and Malaysia (12 countries) and that another would be formed from

7. Fischer (2002/2003) proposes a similar first step toward a single EU seat in the IMF but as part of only a two-step process.

8. The IMF Articles of Agreement limit the size of a constituency to 9 percent of total votes. To get around this limit without amending the articles, some members could decline to vote for the relevant executive director but ask to be represented by an executive director from the EU, as suggested by Polak (1998). Alternatively, the extra quota and voting share could be transferred to other non-EU countries either voluntarily or as part of the process of realigning voting power in the context of an overall increase in IMF quotas.

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Table 9.3 Realigning the IMF Executive Board: Step two

Constituency	Voting share (percent)	Number of members			
		EU members	EU candidates	Non-EU countries	Total
European Union					
Germany	5.99	1	0	0	1
France	4.95	1	0	0	1
United Kingdom	4.95	1	0	0	1
Belgium and Netherlands	10.24	11	8	0	19
Italy and Norway	9.09	11	4	0	15
Total	**35.22**	**25**	**12**	**0**	**37**

Note: Belgium and the Netherlands combine their constituencies and Italy and Norway combine their constituencies. Alignment of non-EU constituencies is as described in the text and in table 9.2.

Source: IMF Executive Directors and Voting Power, available at the IMF Web site, www.imf.org.

the two largest constituencies in numbers of countries currently chaired by Tanzania (19 countries) and Equatorial Guinea (24 countries).

The third step would combine the remaining five EU-majority constituencies into two constituencies. One would consist of the present 12 members of the euro area with 23 percent of total votes, and the other would consist of 13 EU members that are not now part of the euro area and the 12 EU-candidate countries with 12 percent of total votes; see table 9.4.[9] After this step, three more seats would become available for occupation by representatives from nonindustrial countries; alternatively, the size of the Executive Board could be reduced by a seat or two. The final step would involve establishing a single combined EU constituency, which might not include all of the potential 37 members listed in the table. This final step would free up another chair on the Executive Board, for a total of six seats

9. The view of many commentators is that a single IMF constituency for the EU would require an amendment of the IMF Articles of Agreement because of the provision that each of the five countries with the largest quotas should appoint an executive director as well as the provision that no elected constituency should control more than 9 percent of the votes. Polak (1998) proposes a way around these provisions in the context of achieving a single EU seat without amending the IMF articles. He would have the three EU countries with appointed executive directors (France, Germany, and the United Kingdom) appoint the same person and have the remaining EU members ask for that executive director to represent them in the Executive Board. (He notes in passing that the single seat would have almost 16 percent of the votes, enough to block certain decisions, as the United States can today.) The same procedure could be used to create a euro area seat and a seat for the non–euro area EU countries, with the United Kingdom representing the latter group. Alternatively, two EU seats could be established in the context of the one-step or two-step process of adjustment of voting shares in the Fund, with the US and EU shares at parity of 18 percent or less as described in the following section on shares.

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Table 9.4 Realigning the IMF Executive Board: Step three

Constituency	Voting share (percent)	Number of members: EU members	EU candidates	Non-EU countries	Total
European Union					
Euro area	22.91	12	0	0	12
Other EU members	12.28	13	12	0	25
Total	**35.19**	**25**	**12**	**0**	**37**

Note: EU constituencies are combined into one constituency with the current members of the euro area and a second constituency with the 13 current EU members that are not in the euro area and the 12 EU candidate members. Alignment of non-EU constituencies is as described in the text and in table 9.2.

Source: IMF Executive Directors and Voting Power, available at the IMF Web site, www.imf.org.

to be allocated among new constituencies and a possible reduction in the overall size of the board.[10]

Would such an evolution of EU representation in the IMF and, by extension, in other related international organizations be in the interests of Europe? From the perspective of many inside and outside the EU, as detailed in chapter 2, the evolution would be unambiguously in the right direction.[11] Europe would be better able than is the case at present to speak with one voice and potentially to have greater influence in the Fund. Nevertheless, observers favoring consolidation of the EU role in the IMF over time also tend to favor closer political as well as economic integration of Europe.[12] Not everyone involved in the European integration project, which has now progressed during a period of more than 50 years, shares

10. As is pointed out in Woods and Lombardi (2005) and reviewed in chapter 2 of this volume, there are other ways to reconfigure or shrink the Executive Board, including eliminating some or all of the eight current single-country seats—five via appointment (the United States, Japan, Germany, France, and the United Kingdom) and three via election (China, Russia, and Saudi Arabia).

11. Some of those who have written or commented positively about such an evolution are Willy Kiekens in remarks at an Austrian National Bank seminar on June 2, 2003, Horst Köhler (Wallace 2004), Bini Smaghi (2004), Kahler (2001), Kenen et al. (2004), and Woods and Lombardi (2005).

12. Fischer (2004) makes such an argument. He also proposes having common executive directors of the IMF and World Bank in order to strengthen the quality of the boards. (This is the case for a few constituencies today.) The EU could take this step as part of the process of convergence toward one seat. However, students of bureaucratic imperatives would be quick to point out that a dominant incentive is to try to maximize the number of well-paid positions for your nationals.

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that view. Moreover, the most recent EU official statements on this subject (Junker 2005, Almunia 2005) hold out little prospect of a forward-leaning EU perspective in the near future, notwithstanding periodic press reports that the issue is under discussion within EU circles. It is likely that if the general membership of the IMF decides to wait for Europe to move substantially along these lines, the wait will be long. Europe will have to decide that it wants to move. Possibly Europe can be nudged.

From the US perspective, one hears a different set of considerations. Not all US officials are convinced that dealing with a more consolidated and coherent EU view on IMF-related issues is in the US interest. They are concerned that the EU view will generally reflect a very low common denominator or, alternatively, block what the United States wants to achieve in the IMF. From this perspective, a divide-and-conquer US strategy better serves US interests. It is my view (Truman 2005) that this negative perspective is too narrow. Rarely in recent years has the United States been able to split the EU countries on important IMF matters; instead, the US representatives become distracted by different shading of views that they hear from national capitals. Moreover, if the United States takes a lead on this issue, it would be credited with forcing constructive change within the IMF in a direction long advocated by representatives of developing countries. Nevertheless, the United States as well as Europe will have to decide whether it really wants to push European integration in this area. Timothy Adams (chapter 4 of this volume) for the first time enunciated the US view: "Consolidation of European chairs [in the IMF] would help to increase the relative voice of emerging-market and developing-country members."

One reason why it will take a positive US decision to force change is that the United States probably has the only real leverage over the Europeans on this subject, albeit in the nuclear category. Every two years, the United States has an opportunity to block the continuation of the Executive Board at its current size of 24 seats, rather than the 20 seats called for in the IMF Articles of Agreement, because the vote on raising the number of seats requires an 85 percent (weighted) majority. The United States must be part of the majority because of its 17 percent voting share. The United States could use its leverage to encourage change. The US position would have to be laid out carefully to both the Europeans and the other members of the IMF so that there would be no misunderstanding. If the European Union chose not to start down the path outlined and the United States responded by forcing a reduction in the size of the Executive Board to 20 seats, the countries whose relations with the IMF would be disrupted in the first instance would not be those in EU-majority constituencies or in the constituencies in which EU countries are members. A 20-seat Executive Board, which would be welcomed by many inside and outside the Fund on grounds of efficiency, would force 43 members in the four constituencies currently with the smallest voting power—those headed

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by representatives of Brazil, India, Argentina, and Equatorial Guinea—to lose their representation or to join other constituencies (see table 9.1). Europe would be blamed for this result, but the United States would take the heat.

What about the benefits to broader membership of the IMF and the IMF as an institution? Some argue that European executive directors representing non-EU countries provide high-quality services to those countries. However, under the scheme outlined above, only seven countries would be orphaned and, by assumption, they would join the Swiss constituency, in effect replacing Poland and Serbia and Montenegro and raising slightly the total voting strength of that constituency.[13] The departure of Poland from the Swiss constituency, Ireland from the Canadian constituency, and Spain from the Mexican constituency would in no way disadvantage those groups of countries.

The more relevant consideration is that consolidation of EU representation in the IMF would facilitate a rebalancing of the voices heard in the Executive Board. This would enhance the perception and, probably, the reality of its transparency, accountability, and legitimacy. However, consolidation of EU representation in the IMF would also have definite implications for the IMF as an institution, including other aspects of its financing and governance as detailed, for example, in Mathieu, Ooms, and Rottier (2003).

In one potential implication, if the European Union were to assume a consolidated chair as a single country, which some argue would require an amendment of the IMF Articles of Agreement, and the resulting EU quota were the largest in the IMF, then according to the current Articles, the headquarters of the IMF would have to be moved to Europe. Such a move would cause considerable disruption to the IMF's operations as well as substantial financial expense, but that possibility would be one that could be addressed as part of an overall bargain. This implication is associated with an EU quota and voting share in the IMF that might potentially exceed 35 percent of total votes. One way to address this concern and more substantively the overall concern that the IMF is too Eurocentric would be to address simultaneously the twin governance issue of shares (voting power) in the IMF, to which I now turn.

Shares—Voting Power

IMF quotas are a pivotal issue in IMF governance because quotas are the building blocks for many aspects of the IMF and its operations. A country's quota directly translates into voting power because the number of

13. Without the addition of these countries, the Swiss constituency would have the second-smallest amount of voting power.

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votes a country has in the Fund is based primarily on the size of its quota.[14] What matters with respect to voting power is not the absolute size of a country's quota, of course, but the relative size of its quota because formal voting is generally by weighted majority, with most issues requiring only a simple weighted majority and a few issues requiring either 70 percent or 85 percent weighted majorities.[15] The United States, with the largest quota, has 17.08 percent of the votes; therefore the United States can block (veto) proposals that require 85 percent weighted majorities, which largely involve institutional issues and not day-to-day operational decisions.[16] Some authors (Leech and Leech 2005; Bini Smaghi in chapter 10 of this volume) distinguish between a country's voting share or weight and its voting power as based upon its voting share and the ease with which it can form majorities.

In addition to the link between quota shares and IMF decision making, the absolute size of a member's quota establishes a fixed commitment to lend that amount to the Fund. The IMF's capacity to lend is limited by the size of the quotas of countries with strong enough external financial positions for their currencies to be used by the Fund in its lending operations. Finally a member's quota also determines more loosely how much it can borrow from the Fund.

The size of the Fund (total IMF quotas) must be reviewed at least every five years. Some of those reviews have been prolonged beyond five years.[17] Roughly half—8 of 13—of the reviews have resulted in an increase in the size of the Fund.[18] Currently the IMF is in its 13th quota review cycle. The 13th review has not yet been formally started, but it is scheduled to be completed by January 2008. Aside from determining the overall size of the Fund, a review that involves an increase in overall quotas can affect the relative size of quotas and, therefore, a country's voting power. In the past all significant adjustments in quota shares—there have not been many—have been negotiated in the context of quota reviews.

Negotiations over IMF quotas have traditionally been informed by formulas that involve (1) GDP at current market prices (an indicator of economic size), (2) official international reserves (an indicator of a country's capacity to contribute to the Fund), (3) current payments (an indicator of

14. A member has 250 basic votes regardless of the size of its quota and one vote per 100,000 special drawing rights (SDR) of its quota.

15. Amendment of the IMF Articles of Agreement requires a weighted majority of 85 percent of all votes and the positive votes of 60 percent of IMF members.

16. The US quota in the IMF is SDR 371,493 hundred thousand. As of August 2005 its quota share was 17.40 percent.

17. One review was concluded inside the five-year window.

18. New members of the Fund are given quotas commensurate with the size of quotas of existing members (often a complex negotiation), which increases the overall size of the Fund as it reduces the quota shares and voting shares of existing members.

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openness as well as of potential need to borrow from the Fund), (4) current receipts (another indicator of openness as well as of potential need to borrow from the Fund), and (5) the variability of current receipts (another indicator of potential need to borrow from the Fund). These five variables can be measured, often with difficulty because of a lack of comparable data, over periods of varying lengths and combined using a variety of different weights.[19]

Starting with the eighth review completed in 1983, five different formulas have been used to generate a calculated quota. Calculated quotas differ substantially from current quotas because of the tension between actual historical quotas and differences in the pace of members' economic development.[20] An adjustment factor is applied to each formula so that it yields the same overall total. The calculated quota is the larger of the original Bretton Woods formula and the average of the two smallest of the four remaining formulas. In most quota reviews that result in an increase in total quotas, the increase in a country's individual quota is composed of some combination of its current quota share, which always receives the largest weight, an adjustment to bring some or all countries closer to their calculated quota shares, and occasional ad hoc adjustments for countries whose quotas are way out of line. Everything is scaled to the agreed new overall size of the Fund—total quotas.

Quota negotiations are complex because quotas determine from whom the IMF raises its resources and how and when the IMF lends out those resources. On the one hand, a balance has to be struck between the potential capacity of members to lend to the IMF and the potential need for members to borrow from the IMF. The Fund must have access to sufficient financial resources from countries with strong external financial positions to lend to countries that qualify for financial assistance. However, individual countries move over time between those two categories in keeping with the revolving character of the Fund (Boughton 2005). On the other hand, quotas determine voting power, and votes determine the application of IMF policies and changes in those policies. Thus, it is easy to understand why the relative sizes of members' IMF quotas lie at the heart of controversies over IMF governance.

19. In recent discussions and illustrative calculations, the last variable is calculated as the variability of current receipts and net capital inflows. However, dos Reis (2005) demonstrates that use of an absolute measure of the variability of net capital inflows does not provide much advantage to the developing countries as a group. She proposes that the variability of capital flows should be measured relative to GDP, which dramatically boosts the share of developing countries, excluding transition economies, on this variable from 31.3 percent to 73.2 percent based on data for the period 1990 to 2002.

20. The historical relationship dates back to the Bretton Woods conference in 1944, where a formula was used as a guideline for establishing initial IMF quotas, but the formula's results were only indicative. Political agreement was required to establish the formula itself as well as to set the quotas of the important countries and their relative quota shares.

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What are the facts? The simple answer is that they are under dispute. However, table 9.5 provides a starting point.[21] The IMF has 184 members, but the 60 members listed in table 9.5 account for 92 percent of current quotas and 95 percent of calculated quotas in 2004 estimates (IMF 2004).[22]

Data presented in table 9.5 illustrate the fundamental difficulty that is involved in achieving an agreement on adjustments in IMF quota shares that would be perceived as fair. Think of the implications of changing the distribution of IMF quota shares from the current distribution to one based on calculated quotas. Table 9.5 lists the countries in order of their calculated quota shares. First, the 60 countries listed in table 9.5 as a group would gain four percentage points in quota shares from the remaining 124 members of the IMF. Second, the quota shares of 9 of the first 10 countries in the table would increase; their current quotas are 52 percent of the IMF total and their calculated quotas would rise to 59 percent. The quota shares of 13 of the next 20 countries also would increase, but the quota shares of 19 of the last 30 countries would decline. Third, the quota shares of 37 of the 60 countries would change by 25 percent or more; see the fourth column of figures in table 9.5. If the overall size of the Fund—the sum of all quotas—remains unchanged, the implication is that for 16 countries their quotas would increase by 25 percent or more and for 21 countries their quotas would decline by 25 percent or more.

Thus, any adjustment in IMF quota shares would have to be the result of a complex political negotiation. Just how complicated it would be is illustrated by the data in table 9.6, which presents the information in table 9.5 for the 19 regular members of the G-20 group of systemically important countries.[23] The G-20 countries hold 65 percent of current IMF quo-

21. The 60 countries listed in table 9.5 include the 50 countries with the largest current quotas plus 10 additional countries with calculated quotas at least as large as the calculated quota of the country (Romania) with a current quota in the top 50; based on estimates in IMF (2004). Results based on more recent estimates, including data through 2003, are almost identical (IMF 2005b).

22. Representatives of the remaining 124 members of the IMF argue in favor of increasing the number of basic votes for each member of the IMF—250 votes per country. It is pointed out (Buira 2005; Kelkar, Chaudhry, and Vanduzer-Snow 2005; Kelkar et al. 2005) that basic votes represented about 11 percent of total votes in 1945 and represent 2 percent today. Kelkar calculates that if there were an increase in basic votes that restored the share of basic votes in total votes to 11.3 percent and if the remaining 89.7 percent of quota shares were distributed according to GDP on a PPP basis, the voting share of developing countries would rise 11.5 percentage points. However, adjusting the number of basic votes each country receives would not do much for most groups of countries. Ngaire Woods and Domenico Lombardi (2005) point out that the voting share of the largest 25-country African constituency (Equatorial Guinea including Liberia) would rise from 1.99 percent to only 2.81 percent. Merely adjusting basic votes is a feel-good solution to the problem of voting power in the IMF as well as a high-threshold solution because raising the number of basic votes would require an amendment of the IMF Articles of Agreement.

23. The 20th participant in some G-20 meetings is the country that holds the presidency of the EU when that country is not France, Germany, Italy, or the United Kingdom.

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Table 9.5 Current and calculated quota shares in the IMF (percent)

Country[a]	Quota shares: Current	Quota shares: Calculated[b]	Calculated quota shares minus current quota shares	Calculated quota shares minus current quota shares (as percent of current quota shares)
United States	17.38	17.80	0.41	2.4
Japan	6.23	7.27	1.04	16.6
Germany	6.09	7.02	0.93	15.3
United Kingdom	5.03	5.72	0.69	13.8
China	2.98	4.63	1.65	55.5
France	5.03	4.37	–0.66	–13.1
Italy	3.30	3.42	0.12	3.6
Canada	2.98	3.20	0.22	7.4
Singapore	0.40	2.93	2.53	625.0
Netherlands	2.42	2.81	0.40	16.4
Korea	0.76	2.12	1.36	177.4
Spain	1.43	2.04	0.61	42.9
Belgium	2.16	1.99	–0.17	–7.7
Mexico	1.21	1.87	0.66	54.7
Luxembourg	0.13	1.78	1.65	1256.5
Ireland	0.39	1.67	1.28	326.3
Switzerland	1.62	1.62	0.00	0.1
Russia	2.78	1.33	–1.45	–52.3
Malaysia	0.70	1.28	0.59	84.3
Sweden	1.12	1.23	0.11	9.8
Austria	0.88	1.09	0.22	24.8
Australia	1.51	1.05	–0.46	–30.5
Denmark	0.77	1.04	0.27	35.1
India	1.95	1.03	–0.92	–47.3
Saudi Arabia	3.27	1.01	–2.26	–69.3
Brazil	1.42	0.97	–0.45	–31.7
Thailand	0.51	0.87	0.36	71.7
Norway	0.78	0.79	0.01	1.3
Indonesia	0.97	0.75	–0.22	–22.6
Turkey	0.45	0.67	0.22	48.6
Poland	0.64	0.64	–0.01	–0.8
United Arab Emirates	0.29	0.61	0.32	112.9
Israel	0.43	0.59	0.15	35.3
Finland	0.59	0.55	–0.04	–7.1
Philippines	0.41	0.52	0.11	25.7
Portugal	0.41	0.50	0.10	23.9
Czech Republic	0.38	0.45	0.07	18.5

(table continues next page)

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Table 9.5 *(continued)*

Country[a]	Quota shares: Current	Quota shares: Calculated[b]	Calculated quota shares minus current quota shares	Calculated quota shares minus current quota shares (as percent of current quota shares)
Iran	0.70	0.45	–0.26	–36.5
Argentina	0.99	0.43	–0.57	–57.0
Greece	0.39	0.41	0.03	7.3
Venezuela	1.24	0.41	–0.84	–67.4
Hungary	0.49	0.40	–0.09	–18.5
South Africa	0.87	0.36	–0.51	–58.8
Nigeria	0.82	0.34	–0.48	–58.5
Kuwait	0.65	0.34	–0.31	–48.0
Chile	0.40	0.28	–0.12	–29.9
Algeria	0.59	0.27	–0.32	–53.7
Ukraine	0.64	0.27	–0.37	–58.3
Egypt	0.44	0.25	–0.19	–43.9
Iraq	0.56	0.23	–0.32	–58.1
New Zealand	0.42	0.21	–0.21	–49.2
Colombia	0.36	0.21	–0.16	–43.4
Angola	0.13	0.20	0.06	46.3
Vietnam	0.15	0.18	0.03	16.9
Slovak Republic	0.17	0.18	0.01	7.2
Libya	0.53	0.18	–0.35	–66.7
Kazakhstan	0.17	0.17	0.00	0.6
Bahrain	0.06	0.17	0.10	165.1
Pakistan	0.48	0.16	–0.32	–66.5
Romania	0.48	0.16	–0.32	–66.6
Subtotal (60)	91.53	95.49	3.93	n.a.
Remaining members (124)	8.47	4.51	–3.93	n.a.
Total (184)	100.00	100.00	0.00	n.a.

n.a. = not applicable

a. The 60 countries listed include the 50 countries with the largest current quotas plus 10 additional countries with calculated quotas at least as large as the calculated quota of the country (Romania) with a current quota in the top 50.

b. The calculated quota of a member is based on the results of five formulas: one traditional Bretton Woods formula and four non–Bretton Woods formulas. The final number is the higher of the Bretton Woods calculation and the average of the lowest two of the remaining four calculations after adjustment. Calculated quotas are based on 1990–2002 data.

Note: Countries ordered according to calculated quota shares.

Source: IMF (2004) for calculated quotas.

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Table 9.6 Current and calculated IMF quota shares for the G-20 countries (percent)

Country[a]	Quota shares: Current	Quota shares: Calculated[b]	Calculated quota shares minus current quota shares	Calculated quota shares minus current quota shares (as percent of current quota shares)
With larger calculated quotas				
China	2.98	4.63	1.65	55.5
Korea	0.76	2.12	1.36	177.4
Japan	6.23	7.27	1.04	16.6
Germany	6.09	7.02	0.93	15.3
United Kingdom	5.03	5.72	0.69	13.8
Mexico	1.21	1.87	0.66	54.7
United States	17.38	17.80	0.41	2.4
Canada	2.98	3.20	0.22	7.4
Turkey	0.45	0.67	0.22	48.6
Italy	3.30	3.42	0.12	3.6
Subtotal (10)	46.41	53.72	7.30	15.7
With smaller calculated quotas				
Indonesia	0.97	0.75	–0.22	–22.6
Brazil	1.42	0.97	–0.45	–31.7
Australia	1.51	1.05	–0.46	–30.5
South Africa	0.87	0.36	–0.51	–58.8
Argentina	0.99	0.43	–0.57	–57.0
France	5.03	4.37	–0.66	–13.1
India	1.95	1.03	–0.92	–47.3
Russia	2.78	1.33	–1.45	–52.3
Saudi Arabia	3.27	1.01	–2.26	–69.3
Subtotal (9)	18.79	11.30	–7.51	–39.9
G-20 total (19)	**65.20**	**65.02**	**–0.20**	**n.a.**

n.a. = not applicable

a. The calculated quota of a member is based on the results of five formulas: one traditional Bretton Woods formula and four non–Bretton Woods formulas. The final number is the higher of the Bretton Woods calculation and the average of the lowest two of the remaining four calculations after adjustment. Calculated quotas are based on 1990–2002 data.

Notes: Only 19 countries are regular members of the G-20; the 20th country is the one holding the EU presidency if it is not France, Germany, Italy, or the United Kingdom. Countries ordered according to column of calculated quota shares minus current quota shares.

Source: IMF (2004) for calculated quotas.

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tas and the same share of the 2004 estimates of calculated quotas.[24] However, if the distribution of IMF quotas were changed to reflect the calculated quotas presented in the table, not only would the quotas of nine of the countries decline, but the average percentage decline would be 42.5 percent. The average percentage increase would be 39.5 percent. Thus, the political horse trading would involve very large horses, but the right horse traders would be in the room and in the corridors.

Kelkar, Chaudhry, and Vanduzer-Snow (2005) dramatically illustrate some of the voting-power anomalies associated, in their view, with the current quota structure.[25] They note that the combined votes on the IMF Executive Board of Brazil, China, and India are 19 percent less than the combined votes of Belgium, Italy, and the Netherlands at the same time (2000–2001) that their combined GDPs at market exchange rates are 23 percent higher, their GDPs at PPP (2000 PPP estimates) are four times higher, and their populations are 29 times higher. Note, however, that the percentage difference between the combined calculated quota shares of the two groups of countries, based on data through 2002 (IMF 2004), would be unchanged from the percentage difference in their current combined quotas.[26]

This last observation about calculated quota shares illustrates the point that different variables or combinations of variables with different coefficients can easily produce different "calculated" or "benchmark" distributions of IMF quotas. For the 10 countries with the largest calculated quotas in table 9.5, table 9.7 presents information on the four basic components of those calculations: GDP, openness measured by average current receipts and payments, variability of current receipts, and international reserves.[27] For only three countries—Japan, China, and Singapore—do their shares on the basis of three of the four components exceed their current quota

24. The G-20 members are not the countries with the 20 largest IMF quotas, current or calculated. Although 8 of the first 10 countries listed in table 9.5 (where countries are ranked in order of calculated quotas) are members of the G-20, only 3 of the second 10 are members, and 6 of the third 10 are members. Argentina is the 39th country and South Africa is the 43rd. In terms of current quotas, the 10 countries with the largest quotas are members of the G-20, 4 of the countries in the next 10 ranked by quota size are in the G-20, and 4 of the third 10. Korea is the 18th country, with a quota ranked 28th; and Turkey is the 19th country, with a quota ranked 42nd.

25. Vijay Kelkar has coauthored a number of papers on IMF governance.

26. The calculated quota shares of Italy and the Netherlands are larger than their current quota shares, outweighing the implied decline in Belgium's quota; at the same time, the large increase in China's calculated quota is partly offset by large decreases in the quotas of India and Brazil.

27. These 10 countries include only 8 countries with the 10 largest current quotas. Excluded are Russia, which ranks 19th in terms of calculated quotas, and Saudi Arabia, which ranks 25th. Included are Singapore, which ranks 48th in terms of current quotas, and the Netherlands, which ranks 11th.

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Table 9.7 Components of calculated quota shares for the 10 IMF members with the largest calculated quotas (percent)

Country	Quota share: Current	Quota share: Calculated[a]	GDP, 1999–2002[b]	Openness, 1998–2002[c]	Variability, 1990–2002[d]	Reserves, 2002[e]
United States	17.38	17.80	32.06	16.51	13.74	3.58
Japan	6.23	7.27	13.57	5.88	7.12	20.93
Germany	6.09	7.02	6.02	8.69	5.23	2.76
United Kingdom	5.03	5.72	4.68	6.96	4.92	1.92
China	2.98	4.63	4.22	5.02	2.75	12.26
France	5.03	4.37	4.28	5.21	4.57	1.65
Italy	3.30	3.42	3.53	4.11	2.90	1.40
Canada	2.98	3.20	2.29	3.59	3.41	1.74
Singapore	0.40	2.93	0.28	1.78	2.75	3.84
Netherlands	2.42	2.81	1.24	3.32	2.26	0.53
Total	51.84	59.17	72.17	61.07	49.65	50.61

a. The calculated quota of a member is based on the results of five formulas: one traditional Bretton Woods formula and four non–Bretton Woods formulas. The final number is the higher of the Bretton Woods calculation and the average of the lowest two of the remaining four calculations after adjustment. Calculated quotas are based on 1990–2002 data.

b. Three-year average of GDP at market exchange rates; shares normalized to sum to 100.

c. Average sum of current receipts and payments, not adjusted for official transfers, reexports, and international banking interest; shares normalized to sum to 100.

d. Variability of current receipts, measured as one standard deviation from centered five-year moving average; shares normalized to sum to 100.

e. Average international reserves based on end-month data; shares normalized to sum to 100.

Note: Countries ordered according to calculated quota shares.

Source: IMF (2004) for calculated quotas.

shares. Four countries (including France, whose calculated quota in these estimates is less than its current quota) have only one component in which their individual share exceeds their current quota share. Thus, every country has its favorite variable or selection of variables to emphasize in estimating calculated quotas.

What, therefore, is the role that quota formulas should play in quota negotiations? They provide a starting point as well as a check on the horse trading, but the case for formula simplification is overwhelming because it would boost IMF transparency as well as point the Fund in the right direction.

In 2000, an outside committee chaired by Richard Cooper (IMF 2000a) recommended a simplified formula based on two variables: GDP (the potential ability to contribute to the Fund) and the variability of current receipts and net long-term capital flows (an alternative measure of the potential need to borrow from the Fund), with the coefficient on the former twice that on the latter composite. This proposal did not attract a lot of

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support inside or outside of the IMF. Nevertheless, the Executive Board has reached agreement in principle (IMF 2003) that the quota formula should be simpler and more transparent than the traditional formulas. The agreement in principle focuses on three or four variables from a list comprising GDP, measures of openness, variability of current receipts and net capital inflows, and reserves.

Nevertheless, the Cooper Committee's recommendation is a reasonable place to start. I recommend two modifications.

First, I would replace the variability of current receipts and net long-term capital with the variability of current receipts and overall net capital inflows.[28] This change would alter the Cooper Committee concept from one associated with the basic balance (current account plus long-term capital flows) to one more closely associated with the types of economic and financial shocks that affect many countries: the variability of shocks including those affecting the size and direction of short-term as well as long-term capital flows.[29]

Second, I would replace GDP at current prices and exchange rates with GDP on a PPP basis. It is correct, as was argued by the Cooper Committee (IMF 2000a, paragraphs 87–92), that the former concept provides a more accurate measure of a member's current ability to contribute to the Fund.[30] On the other hand, the PPP-based measure introduces a dimen-

28. The IMF staff comment on the Cooper Committee's report (IMF 2000b) implies support for a similar modification, which also has been embraced in principle by the Executive Board (IMF 2003). However, Laura dos Reis (2005) demonstrates that on average for groups of countries the variability of current receipts plus net capital inflows does not differ substantially from the variability of current receipts. Using IMF (2004) data, she shows that the advanced countries' share of the broader concept rises slightly from 58.1 to 60.8 percent. The only other group whose combined quota share would be boosted on average by use of the broader concept would be developing countries in the Western Hemisphere. Her proposed alternative is to scale the variability of net capital inflows by GDP; this would lower the advanced countries' share of the volatility variable from 60.6 to 8.2 percent. On the other hand, closer inspection of the implications of the use of a measure of variability without the inclusion of net capital flows and with an unscaled measure of such flows reveals considerable variation. For more than 40 countries—including Brazil, Turkey, Argentina, the United States, and Germany—the measure with net capital flows is at least 30 percent larger than the measure without their inclusion. For more than 25 countries—including France, the United Kingdom, Saudi Arabia, Japan, and Canada—the measure with net capital flows is at least 30 percent smaller. Use of the broader measure would make a difference even if the variable were unscaled.

29. Variations in short-term capital flows are often offset by variations in reserve holdings; as a consequence, they would not be reflected in the Cooper Committee's recommended measure.

30. The Cooper Committee and the IMF staff (IMF 2000b) point out the statistical challenge that PPP-based measures of GDP are not available for all IMF members. I am confident that this challenge could be overcome via reasonable approximation. If there is a will, there is a way.

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sion of a member's future ability to contribute to the Fund. It does so by indirectly capturing population.[31]

The Cooper Committee argued, as of early 2000, that use of a PPP-based measure of GDP in the quota formula could produce some anomalies. The committee report pointed out that China's quota would be one-third larger than Japan's and India's larger than France's and that these differences would not reflect the capacities of these two countries to support the IMF financially. Today that view can be questioned. As of the end of 2004, the combined foreign exchange reserves of China and Hong Kong were more than 90 percent of Japan's foreign exchange reserves, and India's foreign exchange reserves were four times those of France. Moreover, quota formulas are only one reference point for IMF quota negotiations.

In this connection, the modified Cooper Committee formula would point to a combined share in IMF quotas of the ASEAN + 3 that is close to the target attributed by the press to Minister of Finance Sadakazu Tanigaki of Japan in advance of the April 2005 International Monetary and Financial Committee (IMFC) meeting.[32] Tanigaki was reported to have advocated that the combined share of the ASEAN + 3 grouping should rise from 13 percent to 20 percent. The results in table 9.8 imply an increase from 13 to 23 percent. The share of the six ASEAN countries shown would rise from 3.2 percent to 4.9 percent, and the share of the three Northeast Asian countries (China, Japan, and Korea) would rise from 10.2 to 17.8 percent, but the share of Japan itself would be essentially unchanged at 6.2 percent compared with the present 6.4 percent.

Table 9.8 presents for 57 of the 60 countries listed in table 9.5 a comparison of those countries' current quotas (ranked by current quota), calculated quotas (IMF 2004), and calculated quotas using the modified Cooper Committee formula.[33] The last column of table 9.8 also provides percentage

31. For poorer countries that are converging toward the wealthier countries, as evidenced by relatively higher PPP-based GDP, population is a proxy for their economic size after the conversion is complete. Bryant (2004) and Camdessus (2005) propose including population directly in the quota formula. As can be seen by an inspection of tables 9.8 and 9.9, using PPP-based GDP achieves much the same results in the sense that doing so would dramatically alter the distribution of quotas in the direction of poorer countries with large populations, for example, China, Egypt, India, and Nigeria.

32. ASEAN + 3 comprises the 10 ASEAN countries (Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam) as well as China, Japan, and South Korea.

33. The calculations using the modified Cooper Committee formula are not strictly comparable with the calculations in IMF 2004: (1) only 162 countries are included in the comparison because of data limitations, but the quota shares are normalized to add to 100, and (2) the data for GDP on a PPP basis are for 2004 only instead of being an average of earlier years as found in IMF (2004). (The three omitted countries from the 60 in table 9.5 are Iraq, Libya, and the United Arab Emirates.) These differences should not dramatically affect the qualitative results.

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Table 9.8 Calculated quotas based on modified Cooper Committee formula (percent)

Country	Quota share: Current	Quota share: Calculated[a]	Quota share: Modified Cooper[b]	Modified Cooper quota share minus current quota share (percent of current quota share)
United States	17.80	18.06	21.28	19.5
Japan	6.38	7.37	6.21	–2.6
Germany	6.23	7.12	5.32	–14.6
United Kingdom	5.15	5.80	3.28	–36.2
France	5.15	4.43	3.09	–40.1
Italy	3.38	3.47	2.75	–18.6
Saudi Arabia	3.35	1.02	0.87	–73.9
China	3.05	4.70	9.61	214.8
Canada	3.05	3.25	1.99	–34.6
Russia	2.85	1.35	2.41	–15.5
Netherlands	2.47	2.85	1.08	–56.5
Belgium	2.21	2.02	0.84	–61.8
India	1.99	1.04	4.41	121.1
Switzerland	1.66	1.64	0.71	–57.0
Australia	1.55	1.07	1.10	–29.2
Spain	1.46	2.07	1.92	31.2
Brazil	1.46	0.99	2.39	64.3
Venezuela	1.27	0.41	0.40	–68.9
Mexico	1.24	1.90	1.93	56.1
Sweden	1.15	1.25	0.73	–36.1
Argentina	1.01	0.43	0.89	–11.8
Indonesia	1.00	0.76	1.28	28.3
Austria	0.90	1.11	0.55	–38.8
South Africa	0.90	0.37	0.76	–15.1
Nigeria	0.84	0.35	0.43	–48.4
Norway	0.80	0.80	0.57	–28.7
Denmark	0.79	1.05	0.61	–22.5
Korea	0.78	2.15	2.00	155.2
Iran	0.72	0.45	0.72	–0.1
Malaysia	0.71	1.30	0.67	–6.6
Kuwait	0.66	0.34	0.50	–24.2
Ukraine	0.66	0.27	0.66	0.8
Poland	0.66	0.65	0.92	40.1
Finland	0.61	0.56	0.41	–31.6
Algeria	0.60	0.28	0.40	–33.9
Thailand	0.52	0.88	0.98	88.3
Hungary	0.50	0.40	0.36	–27.7

(table continues next page)

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Table 9.8 Calculated quotas based on modified Cooper Committee formula (percent) *(continued)*

Country	Quota share: Current	Quota share: Calculated[a]	Quota share: Modified Cooper[b]	**Modified Cooper quota share minus current quota share** (percent of current quota share)
Pakistan	0.50	0.16	0.50	–0.1
Romania	0.49	0.16	0.28	–42.5
Turkey	0.46	0.68	1.24	168.2
Egypt	0.45	0.25	0.51	12.5
Israel	0.44	0.60	0.43	–3.1
New Zealand	0.43	0.22	0.20	–53.2
Philippines	0.42	0.53	0.65	55.2
Portugal	0.42	0.51	0.35	–16.5
Singapore	0.41	2.97	0.97	134.6
Chile	0.41	0.29	0.35	–14.4
Ireland	0.40	1.70	1.21	202.3
Greece	0.39	0.42	0.58	46.4
Czech Republic	0.39	0.46	0.40	2.1
Colombia	0.37	0.21	0.48	29.6
Kazakhstan	0.18	0.17	0.27	53.5
Slovak Republic	0.17	0.18	0.17	0.2
Vietnam	0.16	0.18	0.31	97.2
Angola	0.14	0.20	0.19	38.4
Luxembourg	0.13	1.80	0.34	153.3
Bahrain	0.06	0.17	0.09	43.7
Subtotal (57)	92.33	95.82	94.55	n.a.
Remaining members (105)	7.67	4.18	5.45	n.a.
Total (162)	100.00	100.00	100.00	n.a.

n.a. = not applicable

a. The calculated quota of a member is based on the results of five formulas: one traditional Bretton Woods formula and four non–Bretton Woods formulas. The final number is the higher of the Bretton Woods calculation and the average of the lowest two of the remaining four calculations after adjustment. Calculated data quotas are based on 1990–2002 data.

b. The modified Cooper Committee formula: Quota = 2/3 * GDP (on a PPP basis, 2004) + 1/3 (variability of current receipts and net capital inflows, 1990–2002).

Notes: Calculations using the modified Cooper Committee formula are not strictly comparable with the calculations in IMF (2004): (1) only 162 countries are included in the comparison because of data limitations, but their quota shares are normalized to sum to 100, and (2) the data for GDP on a PPP basis are for 2004 only instead of being an average of earlier years as found in IMF (2004). (The three omitted countries from the 60 in table 9.5 are Iraq, Libya, and the United Arab Emirates.) Countries ordered according to current quota share.

Source: IMF (2004) for calculated quotas; World Bank 2004 data for GDP.

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changes relative to current quotas. One notable point is that this simplified formula produces estimates of calculated quotas in which the 18 countries with the largest quotas include 16 of the G-20 countries.[34] This fact strengthens the case for use of the G-20 as the central forum for the inevitable political negotiation of a better distribution of IMF shares.

Table 9.9 provides data for the 19 G-20 countries on their current quotas, IMF (2004) calculated quotas, estimates using the modified Cooper Committee formula based on GDP at current prices and exchange rates, and estimates based on GDP on a PPP basis.[35] The last two columns of table 9.9 provide a comparison of the last two estimates for this group of countries. Using the modified Cooper Committee formula and GDP at current prices and exchange rates boosts the combined G-20 share of IMF quotas from 67 to 75 percent; substituting GDP on a PPP basis reduces that combined share slightly to 73 percent. However, shares of each of the eight industrial countries decline with the modified Cooper Committee formula, and their combined share declines by 14 percentage points to 46 percent of total IMF quotas. The combined share of 11 large emerging-market economies (LEMs) rises by 12 percentage points to 27 percent of the total;[36] according to these estimates only Saudi Arabia would have a slightly lower share using GDP on a PPP basis.

A reallocation of IMF shares in the direction of the LEMs is fully consistent with restoring better balance to the governance of the IMF without adversely affecting the financial condition of the IMF. The LEMs' share of IMF quotas within the G-20 would rise from 27 percent to 38 percent. Note that the international reserves of the LEMs in 2004 totaled $1.1 trillion, 50 percent of the total reserves of the G-20 countries. Thus, these countries as a group should have no difficulty fulfilling their commitments to help finance the IMF. The most recent published report on the financing of IMF transactions (covering the period from March 1, 2005 to May 31, 2005) includes 26 non-EU countries out of a total of 46 countries (IMF 2005a). Those 26 countries accounted for about 60 percent of the total quotas of countries in the financing plan.[37] Among those countries are China, India, Korea, Singapore, and Thailand. These are five of the countries most likely

34. The three remaining G-20 countries are Argentina (23), Saudi Arabia (24), and South Africa (26). Also ranking in the top 18 ahead of the 18th country (Australia) are two EU members—Spain (14) and Ireland (17).

35. Both sets of GDP data are for 2004 only, and the calculations are based on 162 members of the IMF. See also footnote 33.

36. See footnote 1.

37. The share of the 19 nonindustrial countries was 20 percent of the total quotas of countries participating in the financing plan. That share easily could be boosted to 30 percent or higher. Moreover, eight of the participants in the New Arrangements to Borrow are nonindustrial countries, and this list could be expanded further.

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Table 9.9 Quota shares of G-20 countries with modified Cooper Committee formulas (percent)

Country	Quota shares[a] Current	Calculated[b]	Cooper 1[c] (GDP in current dollars)	Cooper 2[d] (PPP-based GDP)	Cooper 2 minus Cooper 1	Cooper 2 minus Cooper 1 (as percent of current quota shares)
With larger Cooper 2 quotas						
China	3.05	4.70	3.65	9.61	5.96	195.3
India	1.99	1.04	1.40	4.41	3.01	151.0
Brazil	1.46	0.99	1.58	2.39	0.81	55.9
Russia	2.85	1.35	1.66	2.41	0.75	26.4
Indonesia	1.00	0.76	0.75	1.28	0.53	52.6
Argentina	1.01	0.43	0.55	0.89	0.34	33.6
South Africa	0.90	0.37	0.49	0.76	0.27	30.0
Turkey	0.46	0.68	1.06	1.24	0.18	38.1
Mexico	1.24	1.90	1.82	1.93	0.11	9.1
Korea	0.78	2.15	1.93	2.00	0.07	8.1
Subtotal (10)	14.74	14.37	14.89	26.92	12.03	81.6
With smaller Cooper 2 quotas						
Saudi Arabia	3.35	1.02	0.89	0.87	–0.02	–0.5
Australia	1.55	1.07	1.39	1.10	–0.29	–18.6
Canada	3.05	3.25	2.44	1.99	–0.45	–14.6
Italy	3.38	3.47	3.57	2.75	–0.82	–24.2
France	5.15	4.43	4.31	3.09	–1.22	–23.9
United Kingdom	5.15	5.80	4.59	3.28	–1.31	–25.3
Germany	6.23	7.12	6.99	5.32	–1.67	–26.7
Japan	6.38	7.37	9.38	6.21	–3.17	–49.6
United States	17.80	18.06	26.61	21.28	–5.33	–30.0
Subtotal (9)	52.04	51.59	60.17	45.89	–14.28	–27.4
G-20 total (19)	**66.78**	**65.96**	**75.06**	**72.81**	**–2.24**	**–3.4**

a. Individual shares for the 19 countries in this table reflect figures normalized for 162 countries.

b. The calculated quota of a member is based on the results of five formulas, which consist of one traditional Bretton Woods formula and four non–Bretton Woods formulas. The final number is the higher of the Bretton Woods calculation and the average of the lowest two of the remaining four calculations after adjustment. Calculated quotas are based on 1990–2002 data.

c. Except for using GDP in current dollars at market exchange rates instead of on a PPP basis, the calculation is the same as the modified Cooper Committee formula in table 9.8: Quota = 2/3 * GDP (on a PPP basis, 2004) + 1/3 (variability of current receipts and net capital inflows, 1990–2002).

d. This is the same as the modified Cooper Committee formula in table 9.8; see note c above.

Notes: Calculated with GDP on a PPP basis compared with GDP at market prices and exchange rates in the modified Cooper Committee formula. Only 19 countries are regular members of the G-20; the 20th country is the one holding the EU presidency if it is not France, Germany, Italy, or the United Kingdom. Countries ordered according to Cooper 2 minus Cooper 1.

Source: IMF (2004) for calculated quotas; World Bank 2004 data for GDP.

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to receive large increases in their IMF quotas in a reallocation of IMF financial and voting shares.

On the other hand, some worry that quotas and voting shares would be boosted for some potential IMF borrowers. This worry reflects a misunderstanding or rejection of the revolving and mutual support character of IMF financial assistance. It is useful to recall that when the G-10 was established in 1962, among other reasons to provide additional financial resources to the IMF in connection with the General Arrangements to Borrow (GAB), some of the members of the G-10, including the United States, borrowed from time to time from the IMF and continued to do so for the next 15 years.

To date there is no consensus on how best to modify the formula for estimating calculated quotas. However, if the IMF membership were to adopt my recommendation to use the modified Cooper Committee formula for this purpose, the calculations would continue only to be indicative of the direction in which quotas should evolve. On the basis of the calculations presented in table 9.9 for the 19 G-20 countries, comparing the first and fourth columns, the quotas of 8 countries (7 LEMs and the United States) would be boosted by an average of 103 percent compared with their current quotas, but the quotas of 11 countries (the remaining 7 industrial countries and 4 LEMs: Saudi Arabia, Russia, South Africa, and Argentina) would decline by an average of 27 percent. Again, a lot of horse trading would be involved in getting from the distribution of IMF quotas today to something approximating the modified Cooper Committee formula.

Nevertheless, use of the modified Cooper Committee formula would provide a benchmark for the political negotiations. In particular, that formula would provide a basis for reducing the relative size of the combined quota of the euro area. The formula would imply a reduction in the combined EU quota in the IMF from the current 32 percent to 25 percent. In addition, the EU countries should be willing to accept a further reduction because much of the variability in their trade and net capital movements takes place within the euro area. Ariel Buira (2005, 27) reports that if the intra-area trade of 12 euro area countries is excluded from the traditional calculated quotas shown in table 9.5, their calculated quota share would decline by 11.4 percentage points.[38] Thus, an argument could be made that the target of a 25 percent quota share for the EU as a whole on the basis of the modified Cooper Committee formula should be reduced further, consistent with the discussion above about the desirability of moving toward one EU chair in the IMF.

I can imagine a US-EU agreement that their IMF quotas should be equal and that their respective shares of the total size of the Fund should be 18

38. European commentators often observe, however, that the combined calculated quota of the EU countries is 5.5 percentage points larger than the total of their current quotas.

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percent.[39] The US position on the general issue of shares in the IMF is somewhat forward leaning. At the IMFC meeting in April 2005, US Treasury Secretary John W. Snow (2005) stated:

> A rebalancing of quotas from "over-represented" countries to the "under-represented" within the existing total could yield substantial progress. This will not be an easy task, but it can be achieved with boldness and vision to help modernize the Fund. These are clearly complex issues, and careful consideration and consultation is needed to address the full range of concerns. This is important to preserving the global character of the IMF, so that all countries feel they have a rightful stake in the institution.

The US position is not forward leaning in that the US advocates a reallocation of IMF quota shares without increasing the total size of the Fund or total IMF quotas. Former US Treasury Secretary Paul O'Neill (2002) told the IMFC in September 2002, as the 12th quota review was coming to a conclusion, that "[l]imiting official resources is a key tool for increasing discipline over lending decisions." To date, O'Neill's successor has not distanced US policy from this unrealistic position.

As of April 2005, the US position on the reallocation of IMF quotas was more forward leaning than the EU position stated by Jean-Claude Junker (2005). Junker did not mention the possibility of reallocating quota shares in any context. Thus, in an effort to make the IMF the preeminent institution of international financial cooperation, the European Union and the United States must reach a political agreement in the interests of the institution that they jointly founded and have nurtured through its first 60 years. However, each IMF member has to agree to any absolute reduction in the size of its quota. It is inconceivable that the members of the European Union would agree to an absolute reduction of their combined IMF quotas by more than 40 percent, which would be the implied average reduction if the EU share in IMF quotas were reduced from a combined 32 percent to a combined 18 percent. No member of the Fund has ever agreed to reduce the absolute size of its IMF quota.[40] A few members have declined to accept quota increases; a few have withdrawn from the Fund (reducing their quotas to zero); and a few have split their quotas because their country has been divided, as in the case of Czechoslovakia and Yugo-

39. Others have made or implied similar suggestions of parity between the US and EU (or euro area) voting shares; see Fischer (2004), Leech and Leech (2005), and Van Houtven (2002, 2004). US-EU parity would have the practical advantage of ducking the issue of moving the headquarters of the Fund to Europe. It would also establish in effect a contestable veto or blocking vote; this is manifested in the calculations by Leech and Leech that the voting power of both would be below their voting shares and the reverse situation for the rest of the IMF's membership.

40. On a few occasions countries have agreed to significant reductions in their quota *shares* but only in the context of an *increase* in the absolute size of their quotas.

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slavia. It follows that a way forward would involve leaving the absolute size of EU quotas unchanged in SDR terms.

Following this logic, the process of adjusting IMF quota shares could be accomplished via an overall increase in the size of the Fund, in one or two steps, in which EU members as a group would agree to little or no increase in their quotas.[41]

Under the one-step approach, the absolute size of EU quotas in the Fund would be unchanged, but the EU share in total quotas would be reduced to 18 percent. The US share would be raised by less than one percentage point to 18 percent, leaving the collective share of all other members of the IMF at 64 percent, compared with their 50 percent today. As is shown in the top panel (panel A) of table 9.10, this would imply the need for a 79 percent increase in the size of the Fund. An increase of this magnitude would be difficult for the United States and probably the European Union to support.[42] It would be a challenge to justify such a large immediate need to augment the IMF's resources; see chapter 2 of this volume.

Consequently, one might imagine a two-step process in which, first, total IMF quotas were increased by 50 percent—close to the average of all quota increases—during the 13th quota review to be completed in early 2008.[43] If the US quota share increased marginally to 18 percent, the combined EU quota share would decline to 21 percent, and the combined quota share of the rest of the membership of the IMF would rise by 80 percent. The first step of the two-step approach is shown in the first part of panel B of table 9.10.

In the second step, as part of the 14th review of IMF quotas in 10 years or so, the size of the Fund would be increased by a further 50 percent, and the US and EU shares would converge at 18 percent of the total. As shown in the second part of panel B of table 9.10, the combined EU share in the IMF would increase 26 percent and the combined share of all other members of the IMF would increase by 59 percent.

It would be no easy matter to reach agreement on the distribution of quota increases and shares among other members of the IMF as part of a one-step or a two-step process. However, the data presented in table 9.8

41. This simplifying assumption ignores the fact illustrated in table 9.5 that four members of the European Union—Denmark, Ireland, Luxembourg, and Spain—have current estimated calculated quotas that exceed calculated quotas by more than 30 percent. Turkey falls in this group as well. Thus, there would have to be some redistribution of quotas within the European Union unless there was a strong presumption in favor of heading over a short period of time to a common EU seat and quota.

42. As shown in table 9.10, the required increase in the US quota would be 87 percent.

43. The average increase in the size of the Fund in the eight quota reviews since 1957 that resulted in increases in total IMF quotas is 44 percent; the most recent four averaged 47 percent.

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Table 9.10 Proposed adjustments to IMF quota shares: One-step and two-step approaches

Group of countries	Starting quota SDR (billions)	Starting quota Share	New quota SDR (billions)	New quota Share	Change in quotas SDR (billions)	Change in quotas Percent
A. One-step approach[a]						
European Union	68.7	32	68.7	18	0.0	0
United States	37.1	17	68.7	18	31.6	87
Remainder of IMF	107.6	50	244.4	64	136.8	128
Total	213.4	100	381.8	100	168.4	79
B. Two-step approach						
Step one[b]						
European Union	68.7	32	68.7	21	0.0	0
United States	37.1	17	57.6	18	20.5	55
Remainder of IMF	107.6	50	193.9	61	86.3	80
Total	213.4	99	320.2	100	106.8	50
Step two[c]						
European Union	68.7	21	86.5	18	17.7	26
United States	57.6	18	86.5	18	28.8	50
Remainder of IMF	193.9	61	307.4	64	113.6	59
Total	320.2	100	480.3	100	160.1	50

SDR = special drawing rights

a. Under the one-step approach, the absolute size of EU quotas in the Fund is unchanged, but the EU share in total quotas is reduced to 18 percent. The US share is raised by less than one percentage point, to 18 percent.

b. Under the first part of the two-step approach, the absolute size of Fund quotas increases by 50 percent (roughly the average of all quota increases). The absolute size of the EU quotas in the Fund is unchanged, but the EU share in total quotas is reduced to 21 percent. The US share rises by less than one percentage point, to 18 percent. The rest of the increase goes to other Fund members.

c. In the second part of the two-step approach, the absolute size of Fund quotas increases by a further 50 percent, and the US and the EU shares converge at 18 percent each.

Source: IMF, *International Financial Statistics*.

suggest that 7 of the 11 LEMs in the G-20 could receive substantial increases—defined as more than 25 percent—in their quota shares. Another nine nonindustrial countries also could be in line for increases of more than 25 percent in their quota shares, but there are some implied reductions in quota shares among not only the industrial countries but also the other developing countries listed in table 9.8, including reductions for G-20 members Argentina, Saudi Arabia, and South Africa.

Why should such an evolution of IMF quotas and quota shares be in the interests of the United States, the European Union, and the rest of the membership of the IMF?

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In reverse order, the rest of the membership of the IMF as a group would achieve a substantial increase in their voting share. Moreover, Dennis Leech and Robert Leech (2005) demonstrate that voting power of the rest of the membership would increase relative to their voting shares. Such an adjustment in shares would buttress their case for more chairs on the Executive Board, increase their potential influence over IMF policies, restore their confidence in the IMF as a universal institution of global financial cooperation, and strengthen the Fund politically without weakening it financially.

Second, members of the European Union should see the evolution of their IMF share not as weakening their influence in the IMF, but as contributing to the internal cohesion of the European Union. A reduction in the collective EU share would be fully consistent with an increase in European unity. As part of an evolution toward a single seat on the IMF Executive Board, a reduction in the collective EU share would increase de facto EU influence in the Fund and EU responsibility for the IMF's evolution. Europe would benefit from the stronger more legitimate institution that would result.

The United States should welcome the outlined evolution of quota shares in the Fund because the United States would gain in several dimensions while it would give up very little. The IMF would be strengthened as an institution. The Fund's financial capacity to discharge its responsibilities would not be weakened. By supporting a politically stronger and more legitimate Fund as the preeminent multilateral financial institution, the United States could expect more support for its own initiatives to reform the IMF. Finally, the United States would not, as part of the process outlined, lose its veto over IMF decisions affecting the IMF as an institution. Therefore, if necessary, the United States should carefully deploy its nuclear option with respect to achieving a realignment of IMF chairs in favor of a reallocation of IMF shares as well.

On the issue of the US veto, many observers feel the US capacity to block major institutional changes gives the United States undue leverage over the day-to-day decisions in the IMF. However, the United States could only voluntarily lose its veto because it could always block any amendment of the IMF Articles or quota increase that had the effect of reducing the US voting share below 15 percent.[44] As we have seen, most proposed adjustments in the quota formula, aside from those introducing a heavy weight on population or international reserves, would not imply an adverse effect on the US quota share.

44. In principle, it might be possible to admit by majority vote enough new members with large enough quotas to drive the US voting share below 15 percent, but that would take an increase in IMF quotas of more than 14 percent. There are not enough nonmember countries in the world to generate such an increase where each new member's quota is constrained by the size of the quotas of comparable countries on the basis of the five quota formulas scaled to the current size of the IMF.

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A potentially more promising route would involve the establishment of a single EU or euro area constituency that would also have more than 15 percent of total votes. This would create a "contestable" veto between the United States and the European Union. If both voting shares were about 18 percent of the total, as suggested in the procedures outlined above, this would free up 13 to 16 percentage points to reallocate to other countries to reflect their relative economic development.[45] Alternatively, both the United States and the European Union could agree to reduce their voting power below 15 percent as part of a grand bargain on IMF reform. Such a grand bargain is not on the horizon. A more promising evolution would involve the United States and the European Union gaining more confidence over time in the capacity of the Fund's membership as a whole to govern and manage the institution responsibly. Eventually they both could agree voluntarily and simultaneously to give up their blocking, 15 percent voting shares.

Conclusion

Rationalizing the allocation of chairs and shares within the IMF in principle involves two separable issues, one having to do with shares and the other having to do with chairs. In practice, both issues will almost certainly have to be addressed at the same time even if progress toward the ultimate goals of these reforms involves different timetables.

EU chairs on the Executive Board will have to be consolidated in a multistep procedure. The former EU-majority chairs should be released either for reallocation toward groups of countries whose voices are presently too faint, or to reduce the size of the Executive Board, or a combination of both.[46]

IMF voting shares will have to be reallocated in the context of one or more overall increases in the size of the Fund. Voting shares should be shifted toward those countries whose relative economic size has outstripped the relative size of their quotas, generally the large emerging-market economies. Such a shift need not weaken the organization's financial capacity to discharge its responsibilities and would dramatically increase the sense of the Fund's legitimacy among the IMF's membership as a whole.

45. Thirteen percentage points would be freed up compared with the current EU share of quotas, and 16 percentage points compared with the total EU quota shown in tables 9.2 through 9.4. Note that the US share would be increased by one percentage point.

46. None of these suggestions about the evolution toward a single EU seat on the IMF Executive Board should be taken as precluding other adjustments in representation except to the extent that it will be important to achieve a more balanced representation in the Executive Board in any such adjustments.

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References

Almunia, Joaquin. 2005. Statement on Behalf of the European Commission. International Monetary and Financial Committee (September 24). Washington: International Monetary Fund.

Bini Smaghi, Lorenzo. 2004. A Single EU Seat in the IMF? *Journal of Common Market Studies* 42, no. 2 (June): 229–48.

Boughton, James M. 2005. Does the World Need a Universal Financial Institution? *World Economics* 6, no. 2 (April–June): 27–46.

Boyer, Jan, and Edwin M. Truman. 2005. The United States and the Large Emerging-Market Economies: Competitors or Partners? In *The United States and the World Economy: Foreign Economic Policy for the Next Decade,* ed. C. Fred Bergsten and the Institute for International Economics. Washington: Institute for International Economics.

Bryant, Ralph C. 2005. *Crisis Prevention and Prosperity Management for the World Economy: Policy Choices for International Governance I*. Washington: Brookings Institution.

Buira, Ariel. 2005. The IMF at Sixty: An Unfulfilled Potential. In *The IMF and the World Bank at Sixty,* ed. Ariel Buira. London: Anthem Press.

Camdessus, Michel. 2005. *International Financial Institutions: Dealing with New Global Challenges*. Washington: Per Jacobsson Foundation.

dos Reis, Laura. 2005. Measuring Vulnerability: Capital Flows Volatility in the Quota Formula. In *Reforming the Governance of the IMF and the World Bank,* ed. Ariel Buira. London: Anthem Press.

Fischer, Fritz. 2002/2003. Time for a Single EU Voice in the IMF and World Bank. *Europe* (December/January).

Fischer, Fritz. 2004. Thinking the Unthinkable: Combining the IMF and the World Bank? *The International Economy* (Fall): 60–65 and 87.

IMF (International Monetary Fund). 2000a. Report to the IMF Executive Board of the Quota Formula Review Group (April 28). Washington: International Monetary Fund.

IMF (International Monetary Fund). 2000b. Staff Commentary on the External Review of the Quota Formula (June 6). Washington: International Monetary Fund.

IMF (International Monetary Fund). 2003. IMF Executive Board Discusses Quota Distribution Issues (August 29). Public Information Notice 03/106. Washington: International Monetary Fund.

IMF (International Monetary Fund). 2004. Quotas—Updated Calculations (August 27). Washington: International Monetary Fund.

IMF (International Monetary Fund). 2005a. Financing IMF Transactions: Quarterly Report, March 1, 2005–May 31, 2005. Washington: International Monetary Fund.

IMF (International Monetary Fund). 2005b. Quotas and Voice—Further Considerations (September 2). Washington: International Monetary Fund.

Junker, Jean-Claude. 2005. Statement on Behalf of the EU Council of Economic and Financial Ministers. International Monetary and Financial Committee (April 16). Washington: International Monetary Fund.

Kahler, Miles. 2001. *Leadership Selection in the Major Multinationals.* Washington: Institute for International Economics.

Kelkar, Vijay L., Praveen K. Chaudhry, and Marta Vanduzer-Snow. 2005. A Time for Change at the IMF: How the Institution Should Be Transformed to Address New Forces Shaping the Global Economy. *Finance and Development* 42, no. 1 (March): 46–49.

Kelkar, Vijay L., Praveen K. Chaudhry, Marta Vanduzer-Snow, and V. Bhaskar. 2005. Reforming the International Monetary Fund: Towards Enhanced Accountability and Legitimacy. In *Reforming the Governance of the IMF and the World Bank,* ed. Ariel Buira. London: Anthem Press.

Institute for International Economics | www.iie.com

Kenen, Peter B., Jeffrey R. Shafer, Nigel Wicks, and Charles Wyplosz. 2004. *International Economic and Financial Cooperation: New Issues, New Actors, New Responses.* Geneva Reports on the World Economy 6. Geneva: International Center for Monetary and Banking Studies.

Leech, Dennis, and Robert Leech. 2005. Power versus Weight in IMF Governance: The Possible Beneficial Implications of a United European Bloc Vote. In *Reforming the Governance of the IMF and the World Bank,* ed. Ariel Buira. London: Anthem Press.

Mathieu, Géraldine, Dirk Ooms, and Stéphane Rottier. 2003. The Governance of the International Monetary Fund with a Single EU Chair. *Financial Stability Review* (June): 173–88. Brussels: National Bank of Belgium.

O'Neill, Paul H. 2002. Statement on Behalf of the United States of America. International Monetary and Financial Committee (September 28). Washington: International Monetary Fund.

Polak, Jacques. 1998. The Significance of the Euro for Developing Countries. In vol. 9, *International Monetary and Financial Issues for the 1990s: Research Papers for the Group of Twenty-Four,* 57–69. New York and Geneva: United Nations, UNCTAD.

Snow, John W. 2005. Statement on Behalf of the United States of America. International Monetary and Financial Committee (April 16). Washington: International Monetary Fund.

Truman, Edwin M. 2005. The Euro and Prospects for Policy Coordination. In *The Euro at Five: Ready for a Global Role?* ed. Adam S. Posen. Washington: Institute for International Economics.

Van Houtven, Leo. 2002. *Governance of the IMF: Decision Making, Institutional Oversight, Transparency, and Accountability.* IMF Pamphlet 53. Washington: International Monetary Fund.

Van Houtven, Leo. 2004. Rethinking IMF Governance. *Finance and Development* 41, no. 3 (September): 18–20.

Wallace, Laura. 2004. Interview with Horst Köhler. *IMF Survey* 33, no. 8 (May 3): 113, 115–16.

Woods, Ngaire, and Domenico Lombardi. 2005. *Effective Representation and the Role of Coalitions within the IMF.* Working Paper. Oxford: Global Economic Governance Program.

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