IMF QUOTAS, REPRESENTATION AND GOVERNANCE

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ABSTRACT

The International Monetary Fund (IMF) is a cooperative institution established to meet the common objectives of international financial stability and economic growth. The IMF's legitimacy and effectiveness in fulfilling these objectives depends critically on its ability to adequately represent all its membership.

The paper reviews the evolution of the IMF's representational arrangements, particularly the quota shares of members. It also canvasses alternative ways of measuring relative economic weight. It concludes that, despite difficulties in measuring the relative economic importance of member countries, a pattern of over- and under-representation is apparent, with East Asia being particularly under-represented.

The paper also seeks to put the quotas issue into perspective, noting there are a range of factors that impact on the representation of IMF members, including strategic use of voting blocs and the use of the constituency system. Finally, the paper suggests a more general examination of the operations of the IMF Executive Board could provide further insights into questions of effectiveness of representation at the institution.

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1. INTRODUCTION

The International Monetary Fund (IMF) is a cooperative institution established to meet the common objectives of its membership of achieving international financial stability and growth. Its legitimacy and effectiveness depend critically on adequately representing all its members, thus engendering ownership of its policies and practices. Representation has a number of dimensions, and means different things to different people. In this paper the term 'representation', narrowly defined, refers not only to the voting power of individual members of the IMF, but also the ability of countries, or groupings of countries, to effectively mount arguments and influence the institution (known as 'voice').

IMF representation arrangements are largely a product of the historical forces that led to the IMF's creation. Emerging market economies, many of which were developing countries at the IMF's establishment, had little role in the moulding of the post-war international order, and were not, in any case, envisaged to be the principal beneficiaries of the Bretton Woods system.[1] Greater global integration has taken place alongside a dramatic increase in the number of sovereign countries, and these newly created countries have very different characteristics from the founding IMF members.[2] This has posed new challenges to the IMF's policy advice function and to its representational arrangements.

Australia has long argued for changes to representational arrangements at the IMF to ensure that they fairly reflect the interests of all its membership. In particular, the impressive economic growth of the East Asian region has meant

1 Many of the same issues arise with the International Bank for Reconstruction and Development (IBRD), or the World Bank, which was also created at Bretton Woods and grew into the current World Bank Group. The governance of the World Bank is rather similar to the IMF's. However, this paper focuses on the IMF alone for ease in discussing the main issues.

that it is under-represented in terms of the size of its quota. Moreover, developing countries, specifically in the Sub-Saharan African region, which are increasingly repeat users of IMF resources, perceive they have limited influence over its operations. Australia has advocated some redistribution of quotas (the primary instrument for determining IMF representation), and changes to IMF governance arrangements to ensure that all members are heard. As a member of an IMF constituency containing some of the IMF's smallest members, Australia has sought to ensure that smaller countries have an effective voice at the IMF Executive Board.

Section 2 of this paper provides historical information on the setting of quotas, an explanation of how quotas are determined, and analysis of trends in quota allocations.[3] Section 3 examines technical issues in setting quota formulas. Section 4 explores the usefulness of voting coalitions and the importance of the constituency system and Executive Directors in representing the interests of smaller countries. Section 5 suggests possible ways ahead on representation issues.

2. HISTORICAL SETTING

The IMF was established to facilitate global economic stability and growth, originally by supporting the maintenance of exchange rate parities under the Bretton Woods system. Each member supplied funds to a pool of resources, which could be drawn on if a member were experiencing a balance of payments problem. This was primarily a tool for supporting pegged exchange rates between the major economies.

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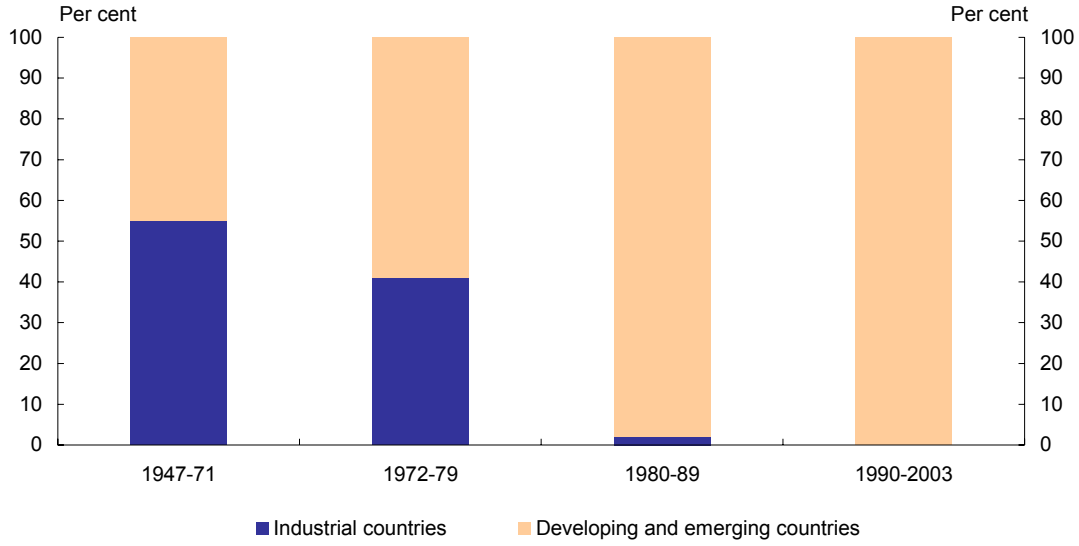
2 See Van Houtven (2002).
3 This analysis builds on work first presented by Henry et al. (2003).

The countries that contributed most of the IMF's capital made the rules governing the use of that capital, and were themselves the main users of that capital during the 1950s and 1960s (see Chart 1). However, since the breakdown of the Bretton Woods system, most industrialised countries have adopted floating exchange rates. The world economy has also become increasingly integrated and international capital markets more developed. Following these changes, industrialised countries' use of IMF resources tapered off during the 1970s with greater exchange rate flexibility and international capital markets replacing the lending role of the IMF in balance of payments stabilisation. Since then, IMF assistance has been directed almost exclusively towards developing and emerging countries (see Chart 1).

Chart 1: Relative use of IMF resources: Industrialised vs developing and emerging countries



Source: IMF (2003a).

While the IMF has adapted its mandate to reflect these changes in the world economy, the question has increasingly arisen whether institutional arrangements have developed sufficiently to give all countries an opportunity to

participate effectively.[4] The IMF now comprises 184 members compared with 39 at its establishment. Representation of the original 39 IMF members was largely determined through rounds of negotiations between members. These 39 members still control the majority of IMF quota, notwithstanding the dramatic changes in their relative importance in the global economy. Moreover, representation of the members with the most control over the institution has remained broadly unchanged.[5]

The dramatic growth in IMF membership has occurred as many former colonies, some relatively poor, have gained independence.[6] This has led to the establishment of the IMF's concessional lending arm to assist countries with poverty reduction and financial sector development. Chart 2 shows that (as at October 2003) close to two-thirds of all IMF lending, including concessional lending, is concentrated in three emerging countries (Argentina, Brazil and Turkey). However, the number of users of IMF resources is fairly evenly split between the IMF's concessional lending arm — the Poverty Reduction and Growth Facility (PRGF) — and its other lending activities (see Chart 3).[7]

4 See Van Houtven (2002).

5 Under the Articles of Agreement, the largest five member countries automatically appoint their own Executive Directors. Other countries can establish single member constituencies if they have sufficient voting power. The countries appointing their own Executive Directors are: the United States, Japan, Germany, France, the United Kingdom, Russia, China, and Saudi Arabia. From 1970, India no longer appointed its own Executive Director as it lost its place among the five countries with the largest quotas. It was replaced by Japan. See de Vries (1976) Vol. 1.

6 See Bordo and James (2000).

7 See Appendix A for a full list of IMF outstanding credit.

Chart 2: Percentage of IMF credit outstanding

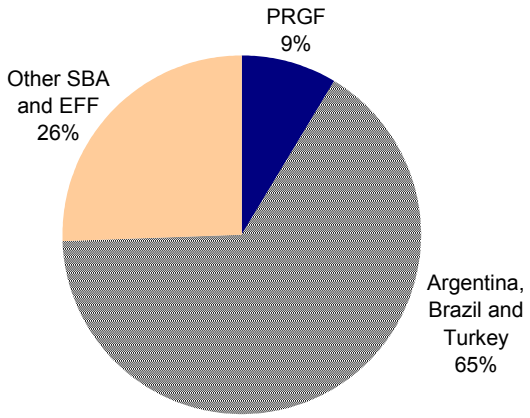
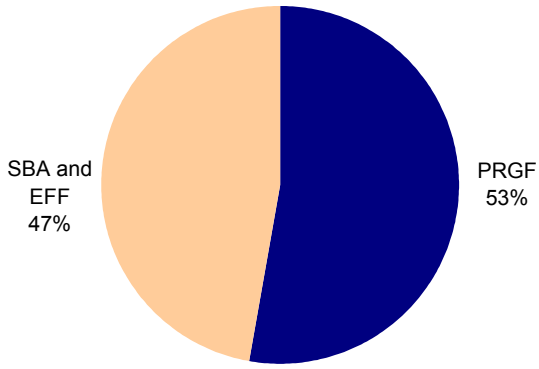


Chart 3: Percentage of IMF users by program



Note: SBA — Stand-by arrangement
EFF — Extended fund facility
PRGF — Poverty Reduction and Growth Facility
Source: IMF (2003e).

The changing nature of IMF lending has changed the dynamic within the organisation. It is no longer a group of advanced economies pooling resources and using them according to a mutually agreed set of conditions. The countries that control the institution are now different from those doing most of the borrowing. Moreover, there is a less clear sense of common purpose than under the Bretton Woods system and more argument about the direction the institution should be taking. This creates tension among the IMF's membership, particularly between lenders and borrowers, and inevitably leads to questions about the representativeness of those who determine the IMF's policies and practices by those to whom they are applied.

3. CURRENT METHOD OF DETERMINING QUOTAS

3.1 Calculated and actual quotas

The primary instrument through which IMF voting power is determined is the IMF quota. On joining, members are assigned a quota that determines their

capital contributions, access to IMF resources (nominally 300 per cent of quota[8]), their voting rights and an allocation of special drawing rights (SDRs). In essence, a member's quota determines its financial relationship with the IMF.

The original quotas of the founding members of the IMF were determined by negotiations between these members. Members who have joined subsequently have undergone similar negotiations with existing members to determine the size of their quotas. Negotiations also allow for considerations not otherwise captured by the quota formulas, such as whether the member is a developing country.

To assist in the original negotiation of quota distribution, the IMF established the Bretton Woods formula which, while not binding, did provide the basis for initial discussion. 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 trade and external variability. The series of five formulas currently used by the IMF encompasses: gold and foreign exchange reserves; current receipts or payments; variability of annual exports or current receipts; and GDP. Some discretion is exercised in how the formulas are applied by the IMF. Calculated quotas change with movements in key variables, including GDP, openness, variability and reserves[9] (for more detail on existing quota formulas, see Appendix B).

The IMF's Articles of Agreement provide for quotas to be periodically reviewed, essentially to determine if the IMF has sufficient resources to meet its financial obligations over the medium-term. Depending on the outcome of the review, the IMF may increase the quotas of all members, requiring further capital

8 In practice, much of the IMF's current lending exceeds this limit and the IMF now has a policy to determine exceptional access cases.

9 See IMF (2003c).

subscriptions from members. Also, relative quota sizes between members can be adjusted during a general review to correct for under- and over-representation (for further information on the methods of quota increases, see Appendix C).

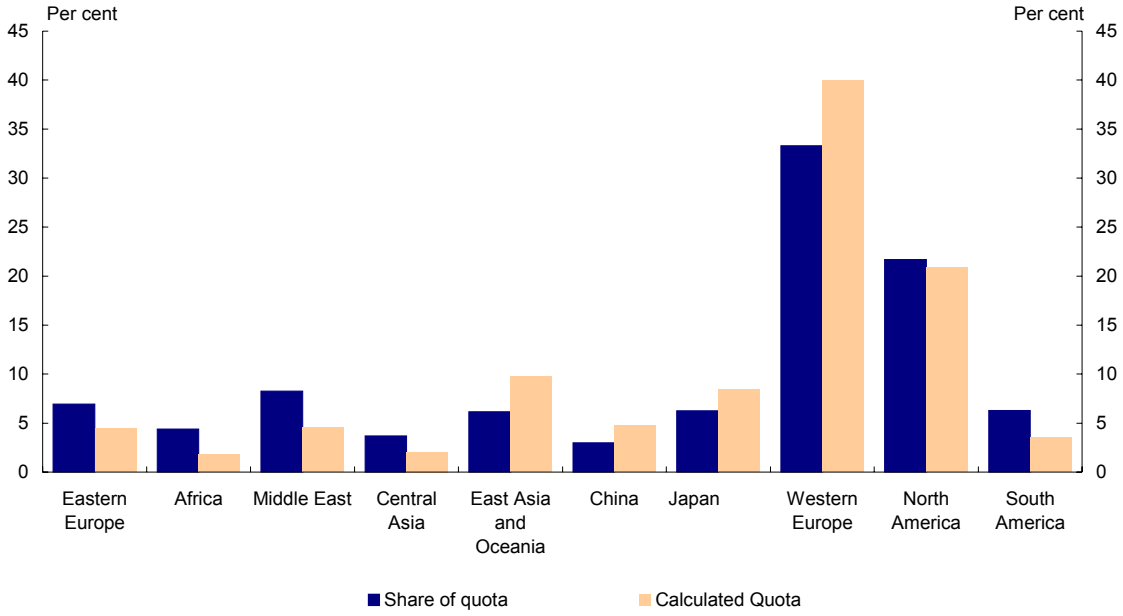
For quota adjustments to occur, 85 per cent of the IMF's voting power must support the changes, and (in cases of ad hoc adjustments) all members whose quotas are to change must consent.[10] However, representation in the IMF is a 'zero sum game', and countries are often reluctant to concede representation, making quotas a politically charged issue.

Chart 4 shows a comparison between actual and calculated quotas. While the IMF's apparent intention is that the distribution should broadly reflect economic weight (with some transfers), it is clear that the formulas do not produce such a distribution.

The distribution of calculated quotas makes it appear as though North America is slightly over-represented. However, any examination of relative economic weight suggests that the US quota does not reflect its true economic position. Also, the calculated quota result for Western Europe implies that it has less quota than it should. In fact, the system of formulas produces a result that is far in excess of Western Europe's actual position in the world economy. Even though the ASEAN+3 region gained slightly from the 1999 review of quotas, the chart clearly demonstrates that it is the only one of the developing and newly developed regions not to have a quota share above the levels implied by the IMF's formulas.[11] These trends highlight the problems inherent in the existing system of quota formulas: that it does not produce a distribution that approximates members' relative positions in the world economy.

10 See IMF Articles of Agreement: Article III sections 3c and 3d.

Chart 4: Share of IMF quota and calculated quota



Source: IMF (2003c).

3.2 Components of quota formulas

The most widely-supported component of quota formulas — **Gross Domestic Product (GDP)** — varies significantly depending on the measurement method. This makes it difficult to interpret how well the formulas have kept pace with trends in GDP over time.

Market exchange rates (MER) and purchasing power parity (PPP) are two measurement methods, and can provide quite different results, with the PPP method tending to place a higher value on developing economy production than the MER method. Chart 5 examines the actual quota sizes and GDP shares of the world economy for IMF members based on these measures. The Asian region has grown significantly since the IMF's establishment, as shown by the

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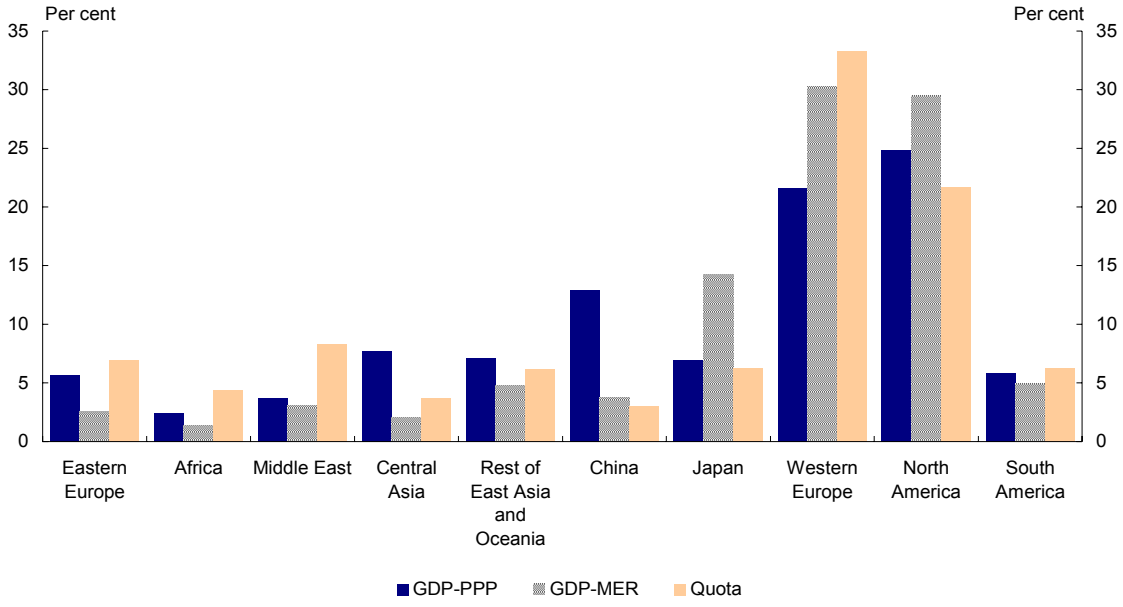
11 The IMF provides quotas to developed members below their economic size, in order to provide quotas to developing members that are above their economic size. This is done so that developing member quotas are of sufficient size to be effectively used at the IMF.

GDP-PPP data published in the IMF's World Economic Outlook (WEO). China has seen the largest rise in its share of world GDP in PPP terms, from around 3 per cent in 1975 to around 13 per cent in 2003 (see Appendix D). There has been a relative decline in the share of Western Europe.

Chart 5: Share of IMF member GDP: PPP, market exchange rates and quota



Source: IMF (2003c) and IMF (2003d).

GDP at MER is a sound indicator of countries' ability to provide resources to the IMF.[12]

If quotas are to reflect contributions to the capital of the IMF, then a GDP measure based on market exchange rates makes sense. However, the use of PPP to measure GDP potentially provides a more accurate measure of domestic consumption of real goods and services, economic size and broader economic influence and provides a measure of GDP more stable than that based on market exchange rates. The problem with this measure is that economic size measured

12 Capital subscriptions and loanable funds, in effect, are paid to the IMF at MER. See IMF (2003c).

in this way may not equate to an ability to contribute resources to the IMF or to influence global activity. Moreover, the availability of robust PPP data, particularly for developing countries, is neither universal nor timely (see Appendix E for further discussion of the MER and PPP methods).

While there is an international effort to produce better PPP data over the next few years, the inclusion of a variable in quota formulas based on GDP-PPP is unlikely to be a practical option for some time. Using GDP at market prices, Japan is more under-represented, whereas using PPP-GDP generates a more significant result for China. While both are under-represented by both measures, this is an example of how estimating the change in GDP since the establishment of the IMF is a matter of some judgement rather than a purely technical issue. It is worth noting, however, that on either a PPP or MER basis, Western Europe, the Middle East and Africa are clearly and significantly over-represented relative to economic weight.

Recognising that quotas serve multiple purposes, other variables are also taken into account in the formulas. For the purposes of the IMF quota formulas, **openness** of an economy is measured as the absolute sum of current receipts and current payments, averaged over a five-year period. The rationale for including an openness variable is that it reflects countries' integration in the world economy. The inclusion of this variable makes sense in principle, however there are some difficulties in obtaining data to broaden the variable to include financial openness. Also, the substantial weighting of this variable in the quota formulas has served the interests of the larger developed countries of Western Europe. While measures of GDP suggest that Western Europe is over-represented, the inclusion of the openness variable makes this region appear under-represented on calculated quota.

Variability is measured as the variance of current receipts and net capital flows, designed to capture countries' vulnerabilities to balance of payments shocks and potential use of IMF resources. Many Executive Directors are of the view that variability should be specified as deviations from a three-year average to provide a balance between smoothing the data and capturing the fluctuations in capital flows. Of concern with this component is that it may increase the quotas of less stable economies.

The inclusion of **foreign reserves** in the quota initially reflected financial strength in terms of an ability to support a fixed exchange rate or to contribute to IMF resources in an emergency. However, with the prevalence of flexible exchange rates, the relevance of reserves is no longer obvious. Of concern is rewarding countries for accumulating reserves as this will reduce the relative quota of countries with flexible exchange rate regimes in strong positions that may not require reserves for precautionary purposes. It should be noted, however, that many countries do not share this opinion and still view reserves as an important ingredient in quota formulas. This is particularly an issue for East Asia, which has dramatically increased its reserves as an insurance policy and to stabilise exchange rates.

3.3 Conclusion

While there are mixed views on the appropriate means of determining quotas, it is interesting that whatever measure is used — GDP at market prices, GDP based on PPP, or calculated quotas — a pattern of under-representation of China and Japan (and other countries in East Asia) emerges. Also, Western Europe's calculated quota is significantly larger than the MER and PPP measures of economic standing suggest it should be. The relative positions of the emerging East Asian economies vis-à-vis the industrialised economies of Western Europe

demonstrate the problems inherent in the existing quota formulas. It will be increasingly difficult for the IMF to present itself as a truly international institution if growing parts of the world economy do not have a voice in its governance commensurate with their true economic size.[13] While achieving agreement on the precise form that quota formulas should take is problematic, we contend that quotas should broadly reflect relative economic positions, with some allowance made for greater representation of developing countries.

4. RELATIONSHIP BETWEEN QUOTAS AND INFLUENCE

What is the likely impact of quota adjustments? Although adjusting quotas would improve the voting power of some nations, since decisions are taken either as a consensus or with special voting majorities (usually 85 per cent), quota changes alone are unlikely to significantly increase the influence of under-represented members.

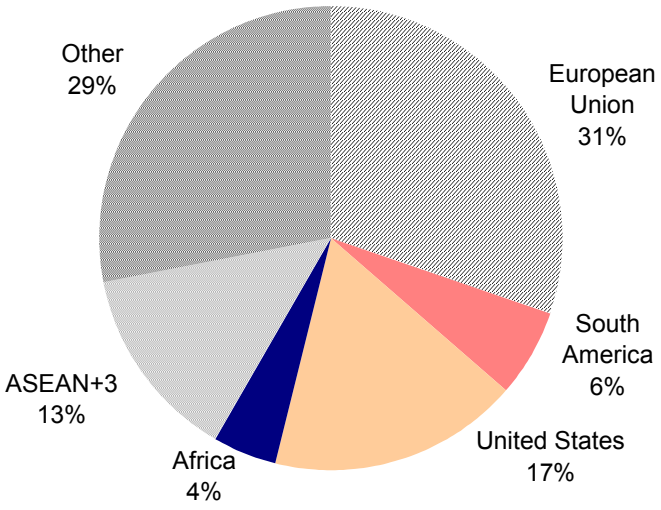
Countries or country groupings that possess a quota share of more than 15 per cent can apply their consolidated power to block some decisions.[14] If it voted as a bloc, Europe would possess a veto, as the US does, over decisions requiring 85 per cent majority. While the ASEAN+3[15] region alone does not have such a veto (see Chart 6), the ASEAN+3 countries could align with Australia and New Zealand to apply a veto (15.34 per cent) over decisions requiring 85 per cent support.

13 See Henry et al. (2003).

14 The 85 per cent voting majority is only applied in major decisions such as changes to the IMF's Articles of Agreement, or quota changes.

15 Includes Brunei Darussalam, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, Vietnam and China, Japan and Korea.

Chart 6: Voting share by region



Source: IMF (2003b).

While acknowledging that under-representation of Asia in the IMF's quota distribution is indeed a serious problem, Stanley Fischer (a former senior manager in the IMF) has argued that, as votes are rarely taken in the Executive Board, the effectiveness of Executive Directors is more related to their persuasiveness than to the size of their vote.[16] This point is valid but should not be taken too far.

Formal voting procedures have a fundamental influence over the decision-making process because power relationships are determined by relative voting strengths.[17] Further, a number of important decisions are still taken on a majority basis — with representation out of line some decisions may not be truly representative of members. But it is true that representation is not just about quota allocations.

16 See Fischer (2001).
17 See Leech (2002).

Countries looking to increase their influence at the IMF should also look at ways of ensuring their voice is heard at the Board through the effectiveness of their representation.

One means of exerting greater influence over the institution is for countries within particular regions or with common interests to work together to form consolidated, well-researched positions and take advantage of their voting power. The G-7 currently does this to great effect with its voting bloc of 46 per cent. While it would be very difficult to establish a voting coalition of this size among the remaining 54 per cent of IMF votes, there is nonetheless scope for countries outside the G-7 to make greater use of their combined voting power to influence IMF decisions.

4.1 The Executive Board and the constituency system

The majority of decisions made by the IMF are made at the Executive Board. The ability of members to influence IMF decisions therefore depends heavily on their relationships with their Executive Directors and the relationships between their Executive Directors and others.

The Executive Board is composed of one representative from each of the five largest members (by quota) of the IMF plus nineteen other representatives, most of whom represent a group of countries or constituency.[18] There are currently three single-country constituencies: China, Russia and Saudi Arabia. Constituencies emerge informally, and members engage in negotiations among themselves. Representation at the Executive Board is decided by the constituency.

18 See Bordo and James (2000).

The constituency can be a useful forum for developing and under-represented economies to influence the policy debate. Australia's experience has been that mixed constituencies, through inclusion of a diverse range of developed and developing countries with a range of experiences, have the opportunity to attain a better appreciation of differences between countries.

Mixed constituencies may better appreciate differences between countries in terms of government structures, political processes, nature of public debate, and administrative capacity.

The claim is sometimes made by non-government organisations (NGOs) that the inclusion of developing countries in a constituency headed by an industrial country simply results in the view of the developing country being diluted because the industrial countries will always dominate. However, an alternative view is that industrial country Directors representing mixed constituencies may be more responsive to the views of developing and emerging countries. The decision taken by the Director has to be mindful of the whole constituency's range of interests.[19] Further, if members believe they are not adequately represented in their constituency, they can protest a Director's representation among the constituency, and have the ultimate option of leaving the constituency and joining a different one, provided a willing constituency can be found.

The choice of Executive Director can also play a vital role in influencing representation of developing members. Each constituency has its own arrangement regarding the choice of its Executive Director. Some rotate the Executive Director to all countries in the constituency, regardless of size, while others select from the country with the largest voting power. Still others apply a combination of both approaches. Members need to find the best arrangement to

enhance the effectiveness of their own representation. For example, Australia has traditionally led the constituency of which it is a member. Now this responsibility is shared with Korea.

In contrast, the Anglophone Africa constituency rotates its Executive Director position among all its constituents, meaning that the largest, and by far the economically most important constituent, South Africa, holds the position for only two out of every 38 years.

Executive Directors are accountable to their constituencies but these accountabilities are not explicitly defined. Concerns about representation by smaller members may be a function of the lack of explicit accountabilities of Executive Directors, or of the natural differences of interests between capital providers and capital users. Nevertheless, all members need to work with their Executive Directors for effective representation. This suggests a more general examination of the operations of the IMF Executive Board could provide further insights into questions of effectiveness of representation. A strong Executive Board that adequately represents all its members will be crucial to the ongoing legitimacy of the IMF.

4.2 Developing country interests

There has been a substantial push in recent times to have the representation of the Sub-Saharan African region increased at the IMF. The countries of this region have the largest number of IMF programs (although most are relatively small in monetary size) and some argue that the IMF largely exists to assist in reducing poverty and stimulating growth. Specifically, '[t]he developing countries who are now the principal clients of the IMF in the sense that only they

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19 See Callaghan (2003).

draw resources and are the subjects of its programs, argue that they have the most at stake in its operations'.[20]

As a result, many argue that this region should have a much greater say in the operations of the IMF. These concerns have been reflected in calls for changes to voting powers, seats on the Board, and additional support for African Executive Directors.

One proposal involves increasing the number of basic votes for all members, which increases the relative voting power of developing members.[21] The percentage of basic votes to total votes has fallen since the IMF's inception with several quota increases and no adjustment to the original number of basic votes (250) provided under the IMF's Articles of Agreement. While this option may be worth examining further, it may not do much to enhance the representation of developing countries since the increase itself is likely to be small. The effectiveness of representation at the IMF will depend much more on how well members can have their views heard.

There have been calls for an additional seat at the Executive Board for the African region. However, there are problems with increasing the size of the Executive Board, which many argue is already cumbersome and unwieldy with 24 members. Changes to the Executive Board structure and composition (such as consolidating the European Union into fewer seats) may provide the scope needed to consider additional developing country chairs.[22] However, we believe that Asia should be given first priority in any changes to the Board given its significance in the world economy.

20 See Eichengreen (2003).

21 Members have votes allocated based on quota sizes and an equal number of basic votes between members. Hence, if basic votes are increased uniformly, the relative voting power of those countries with smaller quotas increases.

22 See Eichengreen (2003).

The IMF has already improved the voice and representation of low-income countries, such as increasing the number of staff in large constituency offices. We believe that further efforts to improve representation of developing members should focus on improving the operation of constituencies and the Executive Board. This requires action on the part of the members themselves.

5. LOOKING AHEAD

The under-representation of Asia has contributed to pressure in recent years for the development of regional financial institutions in the Asia-Pacific region. Such initiatives may provide regions with a greater sense of ownership of outcomes in international crisis management and filling gaps in the representativeness of the IMF. But they may reflect a view that the IMF is already losing its relevance in the region.[23]

East Asia participates in a range of international fora and is a major shareholder in the IMF. It is incumbent on the region to actively exercise its ownership responsibilities in these forums and institutions. But it is also necessary for the IMF to engage more directly with the region. The more exclusive other regions are, especially North America and Europe, the less likely East Asia will see itself as a stakeholder in the global architecture and the more insular is the route that it is inclined to take.[24]

Completely addressing these issues will take time, but a number of smaller actions could be taken in the meantime to address some of East Asia's concerns and encourage complementary, rather than competitive, regional financing arrangements. For example, in recognition of Korea's growing economic

23 See Parkinson, Garton and Dickson (2004) for further discussion of this issue.
24 See de Brouwer, G. (2004).

significance, the constituency encompassing Korea and Australia has agreed to rotate the constituency chair among these two economies from November 2004. Also, East Asia could continue to focus its energies on determining the nature of any future quota increases, initially among themselves, and then subsequently by gathering support from the wider IMF membership. This would likely maximise the region's chances of forcing change. If such changes are not made then the IMF may further lose relevance.

6. CONCLUSION

We conclude that under a range of approaches for measuring representation, parts of East Asia are under-represented in the institution and an adjustment of quotas to reflect their growing economic importance is required. However, adjustment of quotas alone is not sufficient. Members within particular regions or with common interests need to work together to utilise their consolidated voting power on issues of mutual interest. Further, improvements in the use of the constituency system and Executive Board, including greater accountability of the Executive Board to its members, are crucial to improve the effectiveness of representation for all members.

Australia has argued strongly to increase the representation of Asia, and has also advocated a more general review of representation arrangements. At present, there appears to be insufficient support for a quota increase in the near future. In the meantime, the Australian Government has indicated that it will work toward garnering support for correcting quota and representation imbalances at the next general quota increase.[25] Specifically, the next general quota increase will need to have as large a selective component as possible that

25 See Australian Statement and IMF Constituency Statement both by the Hon. Peter Costello, IMF Annual Meetings 2003.

favours East Asian nations and these nations will need to continue their drive for such a change. It would be wrong to suggest, however, that representation is simply about changes to quotas.

Too much of a focus on changes to quota allocations at the margin may detract attention from issues of effectiveness of representation.

Effective governance of the IMF requires that the benefits and burdens of membership be appropriately distributed among the participants.

This is a function of several factors, including the quota system, constituency arrangements and effectiveness of Executive Directors. Despite the difficulties in bringing about a consensus, pressure must be maintained for these issues to be resolved.

APPENDIX A: IMF OUTSTANDING CREDIT

Table 1: IMF outstanding credit for PRGF countries (millions of SDRs)

Country	Amount owing	Percent of PRGF lending	Percent of total Fund lending	Country	Amount owing	Percent of PRGF lending	Percent of total Fund lending
Pakistan	783.8	11.8	1.0	Mauritania	71.6	1.1	0.1
Zambia	570.4	8.6	0.7	Cambodia	71.1	1.1	0.1
Congo, Democratic Republic of	473.4	7.1	0.6	Tajikistan	69.0	1.0	0.1
Cote d'Ivoire	313.4	4.7	0.4	Guyana	66.0	1.0	0.1
Tanzania	303.0	4.6	0.4	Rwanda	63.0	1.0	0.1
Ghana	281.3	4.2	0.4	Albania	62.1	0.9	0.1
Vietnam	239.0	3.6	0.3	Kenya	57.6	0.9	0.1
Yemen	234.4	3.5	0.3	Malawi	52.9	0.8	0.1
Cameroon	217.7	3.3	0.3	Benin	51.0	0.8	0.1
Georgia	182.7	2.8	0.2	Bangladesh	49.5	0.7	0.1
Uganda	167.5	2.5	0.2	Sri Lanka	44.0	0.7	0.1
Senegal	166.8	2.5	0.2	Mongolia	33.9	0.5	0.0
Nicaragua	145.5	2.2	0.2	Laos	31.0	0.5	0.0
Mozambique	144.7	2.2	0.2	Togo	30.4	0.5	0.0
Kyrgyz Republic	139.1	2.1	0.2	Moldova	27.7	0.4	0.0
Armenia	129.1	1.9	0.2	Macedonia	25.4	0.4	0.0
Bolivia	128.8	1.9	0.2	Central African Republic	24.5	0.4	0.0
Madagascar	117.3	1.8	0.2	Gambia	23.5	0.4	0.0
Mali	116.7	1.8	0.2	Lesotho	17.9	0.3	0.0
Honduras	116.4	1.8	0.2	Djibouti	13.6	0.2	0.0
Sierra Leone	113.4	1.7	0.1	Guinea-Bissau	12.3	0.2	0.0
Ethiopia	103.0	1.6	0.1	Haiti	10.6	0.2	0.0
Azerbaijan	99.2	1.5	0.1	Congo, Republic of	8.3	0.1	0.0
Guinea	92.6	1.4	0.1	Cape Verde	3.7	0.1	0.0
Zimbabwe	85.4	1.3	0.1	Sao Tome and Principe	1.9	0.0	0.0
Burkina Faso	84.6	1.3	0.1	Nepal	0.6	0.0	0.0
Niger	84.3	1.3	0.1	Equatorial Guinea	0.1	0.0	0.0
Chad	73.8	1.1	0.1	**Total**	6,630.4	**100.0**	**8.7**

Source: IMF (2003e).

Table 2: IMF outstanding credit for SBA and EFF countries (millions of SDRs)

Country	Amount owing	Percent of SBA and EFF lending	Percent of total Fund lending	Country	Amount owing	Percent of SBA and EFF lending	Percent of total Fund lending
Brazil	23,358.6	33.5	30.6	Azerbaijan	67.4	0.1	0.1
Turkey	16,255.6	23.3	21.3	Bolivia	64.3	0.1	0.1
Argentina	10,573.4	15.2	13.8	Gabon	44.5	0.1	0.1
Indonesia	6,713.2	9.6	8.8	Yemen	41.1	0.1	0.1
Russian Federation	3,552.9	5.1	4.7	Uzbekistan	33.3	0.0	0.0
Uruguay	1,640.2	2.4	2.1	Panama	32.5	0.0	0.0
Ukraine	1,246.7	1.8	1.6	Lithuania	31.9	0.0	0.0
Philippines	857.2	1.2	1.1	Macedonia	21.2	0.0	0.0
Bulgaria	807.9	1.2	1.1	Burundi	19.3	0.0	0.0
Algeria	733.8	1.1	1.0	Balarus	17.5	0.0	0.0
Serbia and Montenegro	616.9	0.9	0.8	Malawi	17.4	0.0	0.0
Pakistan	529.2	0.8	0.7	Georgia	16.2	0.0	0.0
Romania	433.8	0.6	0.6	Congo, Republic of	10.6	0.0	0.0
Sudan	346.7	0.5	0.5	Armenia	9.8	0.0	0.0
Jordan	294.1	0.4	0.4	Jamaica	8.1	0.0	0.0
Ecuador	265.9	0.4	0.3	Honduras	5.9	0.0	0.0
Sri Lanka	220.7	0.3	0.3	Latvia	5.7	0.0	0.0
Liberia	200.8	0.3	0.3	Grenada	2.9	0.0	0.0
Zimbabwe	117.5	0.2	0.2	Dominica	2.7	0.0	0.0
Bosnia and Herzegovina	97.1	0.1	0.1	Vietnam	2.0	0.0	0.0
Somalia	96.7	0.1	0.1	Guinea-Bissau	2.0	0.0	0.0
Peru	93.6	0.1	0.1	Haiti	1.9	0.0	0.0
Dominican Republic	87.6	0.1	0.1	Djibouti	0.2	0.0	0.0
Papua New Guinea	83.0	0.1	0.1	St. Kitts and Nevis	0.2	0.0	0.0
Moldova	71.0	0.1	0.1	**Total**	69,752.6	**100.0**	**91.3**

Source: IMF (2003e).

APPENDIX B: EXISTING QUOTA FORMULAS

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: $Q_3 = (0.045Y + 0.03896768R + 0.07P + 0.76976VC)\ (1 + C/Y)$;

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 centred 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)**.

APPENDIX C: METHODS OF QUOTA INCREASES

There are three ways for the IMF to increase member quotas. These are: equiproportional, ad hoc, and selective quota increases.

An equiproportional increase, as the name suggests, leaves member quota relativities unchanged. The equiproportional increase has been the most commonly used, accounting for over 70 per cent of quota increases.[26]

An ad hoc increase involves increasing one member's quota relative to all other members of the IMF. The ad hoc method has been used on special occasions such as the reunification of Hong Kong with mainland China, to provide China with a larger quota.

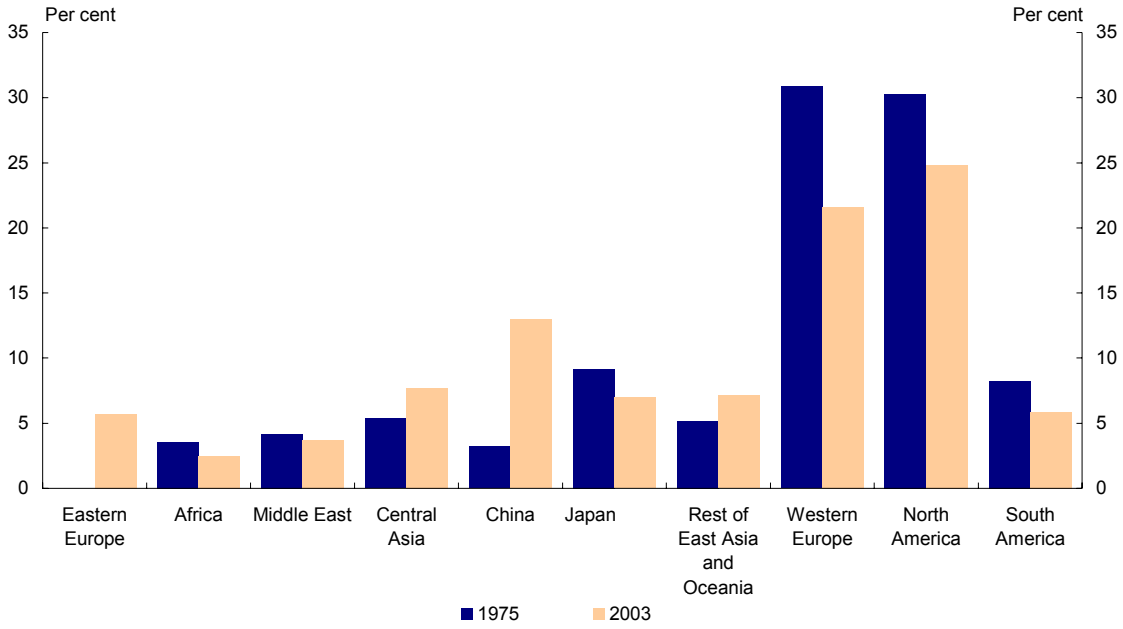
A selective increase in quotas involves an absolute increase in quotas, but with a select group of members having their quota shares increased at the expense of other members. For example, this method could be used to increase Asian countries' quota shares, at the expense of European countries' shares.

There has been substantial resistance to both selective and ad hoc increases due to country reluctance to part with existing quota share. Overcoming this resistance will be necessary to correct for the representation imbalances that currently exist.

26 IMF (2003c).

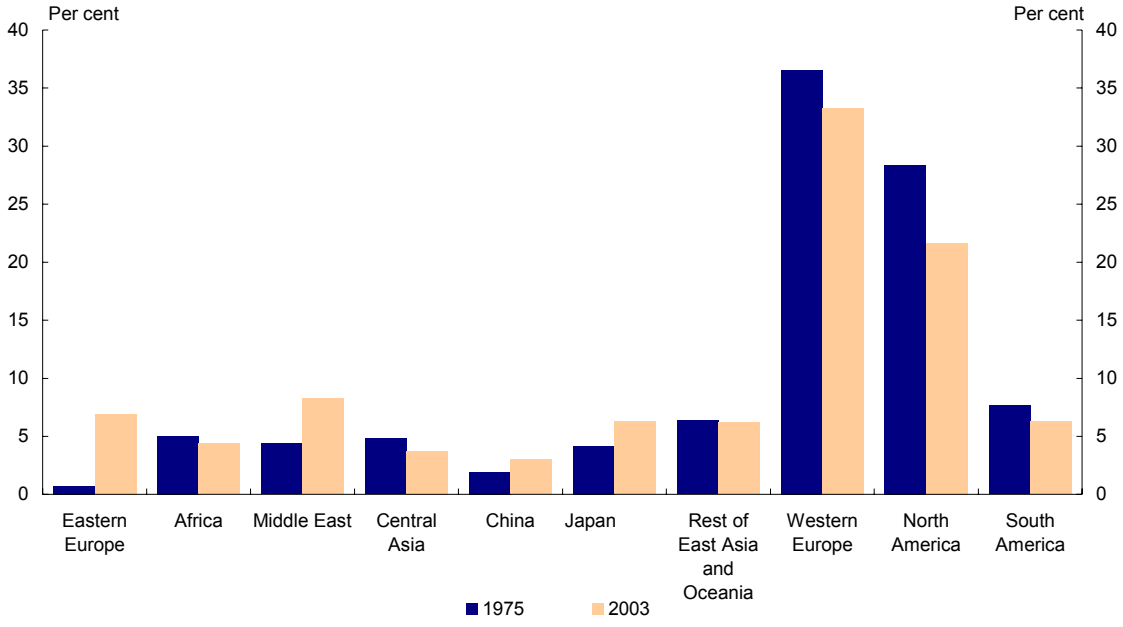
APPENDIX D: QUOTA AND GDP CHANGES 1975 TO 2003

Chart 7: Share of IMF member GDP-PPP



Source: IMF (2003d) and World Bank (2003).

Chart 8: Share of IMF quota



Source: IMF (2003b) and Garritsen de Vries (1976).

APPENDIX E: MARKET EXCHANGE RATES VERSUS PURCHASING POWER PARITY (PPP)

The IMF publishes both PPP and market exchange rate data in its *World Economic Outlook* (WEO). Both measures have their merits in particular applications with sound arguments for and against each measure; however, they yield quite different results for GDP shares of the world economy. The current method, which has been used for some time and commands wide support within the Executive Board, is the market exchange rate method (MER). The MER method is straightforward, with data easily available.

The MER method is also more closely related to the financial functions of quotas, as it more accurately measures the capacity of each country to contribute resources. For example, a country may have a high GDP level in PPP terms, but when its GDP is converted to US dollars at market exchange rates its value may diminish considerably. However, a significant drawback of the MER method is that the measured level of GDP can vary with the exchange rate without any change in real output.

PPP ratios tend to be more stable than exchange rates, and provide a more conceptually appropriate basis for comparing real consumption or production in different economies. The PPP exchange rate for a country is the number of units of the national currency required to purchase the same amount of goods and services in that country as could be purchased with one US dollar in the United States. The Organization for Economic Cooperation and Development (OECD) advocate using PPPs for making inter-country comparisons in real terms of GDP and its component expenditures and the World Bank uses PPP for analysis of poverty and inequality issues. Switching to PPP to calculate quotas (all other things remaining the same) would reflect the global pattern of real

production of goods and services and is a more accurate reflection of the domestic economy's size.

There are two common arguments against the use of GDP-PPP in estimating quotas. The first relates to the liquidity position of the IMF. A country with a high level of GDP-PPP does not necessarily have the capacity to contribute appropriate resources since its GDP valued at current US dollars might be small. Changing shares of contributions would affect the liquidity of the IMF if it meant a greater proportion of resources were required from developing countries, since they may be unable to contribute these resources. The PPP methodology raises developing countries' GDP because it takes account of non-tradable prices, which tend to be much lower in developing countries. Differences between these two methods are sizeable for some countries, in particular for large developing countries, such as China, where GDP-PPP is around four times higher than GDP at market prices.

The second and more practical concern with using PPP is that there are questions about the availability and robustness of appropriate PPP data. The IMF publishes GDP-PPP ratios biannually in its WEO. However, the IMF is not a primary source for PPP data and uses weights generated from the OECD, the World Bank, or the Penn World Tables.[27]

The OECD, in conjunction with the Statistical Office of the European Union (Eurostat), has been seeking to improve the accuracy and availability of GDP-PPP. The OECD has been collecting PPP data every three years since the early 1980s. The 1999 round is the sixth and most recent, covering all fifteen EU member states and all 30 OECD member countries. It also covers 13 countries

27 Penn world tables are from Alan Heston, Robert Summers and Bettina Aten, Penn World Table Version 6.1, Center for International Comparisons at the University of Pennsylvania (CICUP), October 2002, http://pwt.econ.upenn.edu.

that are not members of the EU or the OECD.[28] However, these data are mainly for industrial countries where reliable PPP estimates have been available for some time. PPP estimates for many developing countries are considerably less reliable, and deviations from true PPPs are likely to be even larger for the countries where benchmark studies are not available.[29] So the question arises of how to improve the PPP estimates for developing countries.

The World Bank coordinates the International Comparisons Programme (ICP), which is a global statistical initiative established to produce internationally comparable price levels, expenditure values and PPP. The 2003-2005 round (sometimes referred to as ICP 2004) will provide PPP data for around 160 countries worldwide. Preparations for this round have been underway since 2001, and final global results will be made available in 2006.[30] As mentioned, the OECD, in collaboration with Eurostat has continued to collect price data to estimate PPPs in its member states and currently operates on a three-year cycle. Since 1993, the World Bank has assumed the role of global coordinator for the ICP in non-OECD countries. This round is designed to improve data accuracy and answer some of the criticisms levelled at the program during the 1998 round. While it is too early to be definitive, the 2003-2005 round could provide PPP data with sufficient accuracy to be used in future quota calculations.

28 See OECD (2002).
29 See Gulde and Schulze-Ghattas (1993).
30 See World Bank (2004).

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