IMF Quotas

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INTRODUCTION

Since the establishment of the International Monetary Fund, IMF, in 1944 the capital subscriptions, or quotas, paid by the member countries have been determined and reviewed on the basis of almost unchanged calculation methods. Since then, the international economic and financial environment has undergone considerable changes characterised by greater economic integration, improved access to financial markets and increasing capital flows, while emerging markets have come to play a more important role. The individual countries' relative positions in the world economy have hereby changed significantly, without corresponding changes in the quotas. A case in point is that in 2000 Korea's quota is smaller than Denmark's, even though Korea's GDP is three times higher. These changes in the countries' relative economic significance have prompted the consideration of a new calculation method which better reflects these shifts. In 1999 the IMF commissioned an external working group to review the quota formulas. This article comments on the report of the Quota Formula Review Group which was published in September 2000[1].

OBJECTIVE OF THE QUOTAS

According to the IMF's Articles of Agreement each member country must pay a capital subscription to the IMF which is equal to its quota. The quota of a member country serves the following purposes.

Capital subscription (financing). Firstly, the quota determines a country's contribution to the IMF's resources. A member country subscribes to capital equivalent to its quota. The capital subscription typically consists of up to 25 per cent as international reserve assets and the remainder in the country's national currency. International reserve assets are held in currencies of countries with a sufficiently strong balance-of-payments position to finance the IMF's lending (US dollar, euro, yen, etc.) and

[1] Richard N. Cooper et al., *Report to the IMF Executive Board of the Quota Formula Review Group*, IMF, Washington, September 2000.

SDR[1]. The international reserve asset contributions are the primary source of finance for lending by the IMF. The industrialised countries contribute by far the greatest part of the IMF's financing.

Access to purchases. Secondly, the quota determines the limits for a country's access to draw on the IMF. Normally, the annual limit is 100 per cent of a country's quota up to a total ceiling of 300 per cent. However, this has posed certain problems in recent years, namely that in a number of cases the access limits had to be exceeded by a significant amount partly because a number of countries' quotas were considerably lower than the requirement for IMF lending indicated. Lending by the IMF to Mexico in 1995 and to Thailand and Korea in 1997-98 are examples of how the IMF deviated from the general rules on access limits and lent more than these rules provide for[2].

Influence. Thirdly, the quota determines a country's voting power in the IMF's decision-making bodies and thereby the country's influence in the IMF. IMF decisions are subject to either a simple majority or a qualified majority of 70 or 85 per cent, depending on the tabled motion. A minority of only 15 per cent of the votes can thus block the vote. (The USA's voting power is approximately 18 per cent so that it can veto decisions such as changes in quotas, sale of the IMF's gold and issue of SDR assets.)

The determination of a country's quota thus depends on a number of relative factors such as the country's ability to make resources available to the IMF, its potential borrowing requirement and its relative position in the world economy. Although they are motivated by various considerations, the countries will typically be interested in maximising their quotas. The developing countries' interest in gaining large quotas is based primarily on their wish to enhance their opportunity to borrow, while the industrialised countries are motivated by a wish for greater influence.

Finally, it must be stated that the determination of the IMF quotas is of significance to the countries' quotas in the World Bank, whereby the IMF quota also determines a country's contribution to the World Bank.

QUOTA HISTORY SINCE THE ESTABLISHMENT OF THE IMF

The IMF's Articles of Agreement do not stipulate how the quotas are to be determined. In practice, the quotas are set after political negotia-

[1] The SDR (special drawing right) is a reserve asset created by the IMF as a supplement to existing reserve assets. It was originally valued in terms of gold (equal to one US dollar) but since 1974, the value of the SDR has been determined by that of a basket of major currencies. The average value of the SDR was USD 1.37 in 1999.

[2] This development led to the establishment of two new financing instruments which are not covered by the quota-based drawing access: in 1997 and 1999 the IMF established the Supplementary Reserve Facility (SRF) and the Contingent Credit Line (CCL).

tions. For example, since 1992 the quotas of the UK and France have been exactly equal. This also applied to Japan and Germany for a long period, even though this was not founded on objective economic criteria.

Although quota setting, especially for the large countries, is primarily the result of political negotiations, the quota discussions have been based on economic criteria. This is particularly the case for the small countries. The formula applied in the 1940s by the original members as the basis for negotiations of the size of the quotas was known as the Bretton Woods formula. When new countries join the IMF, their quotas are negotiated by the IMF's Executive Board on the basis of the result of the quota formula and the typical quota size for comparable countries.

The Bretton Woods formula is a simple equation to calculate a country's quota on the basis of its gross domestic product (GDP), foreign-exchange reserves, imports, exports and the fluctuation of exports, cf. Box 1. The choice of these economic variables must be seen as a compromise between the various purposes served by the quotas. A country's GDP and foreign-exchange reserves were regarded as good indicators of a country's ability to make funds available to the IMF, and of its position in the international financial system. The scale and the fluctuations of the member country's external trade – the openness of its economy – were taken to express its potential requirement for borrowing from the IMF.

In the 1960s the simple formula was expanded to a multi-formula approach with various weightings of the same economic variables, in order to adapt the formula to the development in the world economy and the influx of new member countries. The basic structure of the formulas has remained unchanged since the 1960s, although they were modified slightly in 1982-83.

At 5-year intervals the IMF quotas are reviewed to see if they are still adequate. It is then decided whether quota adjustments are needed, typically increases. In connection with these general quota increases most of the allocation of increased quotas normally constitutes a proportional write-up of the existing quotas. Only a minor proportion is allocated on the basis of actual political negotiations based on the quota formulas. This proportion is often called the selective element of the quota increase. Historically, the selective element has averaged around 30 per cent of the revisions. The fact that only a minor proportion of the quota increases is allocated on the basis of the formulas means that the countries' actual quotas may deviate considerably from the results of the formulas. In view of the ongoing development of the economic variables used in the formulas, the changes in the world eco-

HISTORY OF THE IMF'S QUOTA FORMULAS Box 1

The original Bretton Woods formula

The original Bretton Woods formula calculated a member country's quota on the basis of its GDP, foreign-exchange reserves, balance-of-payments statistics and export fluctuations.

$Q = (0.02Y + 0.05R + 0.010M + 0.10V)(1 + X/Y)$,

where

Q = Calculated quota
Y = National income
R = Gold and foreign-exchange reserves
X = Average annual exports (5-year average)
M = Average annual imports (5-year average)
V = Maximum fluctuation in exports over a 5-year period

The revised Bretton Woods formula

In 1962-63 a multi-formula approach was adopted using almost the same variables, but with different weightings compared to the original Bretton Woods formula. In practice, this entailed that the quotas of the major countries were still calculated using the original Bretton Woods formula, while the quotas of particularly the developing countries were calculated using revised formulas.

The revised Bretton Woods formula 1983

The quota formulas were simplified in 1983, when particularly the significance of fluctuations in current receipts was reduced. The quota is calculated on the basis of five different formulas, of which the first is the original Bretton Woods formula. The result using the Bretton Woods formula is compared with the average of the two smallest results from the other equations and the quota is then given as the largest of the two values. Typically, the quotas of the industrialised countries are thus calculated using the original Bretton Woods formula, while the quotas of the developing countries are calculated using the revised formulas. The 1983 revised formulas still apply.

$Q^1 = (0.01Y + 0.025R + 0.05P + 0.2276VC)(1+ C/Y)$,
$Q^2 = (0.0065Y + 0.0205125R + 0,078P + 0.4052VC)(1 + C/Y)$,
$Q^3 = (0.0045Y + 0.03896768R + 0,07P + 0.76976VC)(1 + C/Y)$,
$Q^4 = 0.005Y + 0.042280464R + 0,044(P + C) + 0.8352VC$,
$Q^5 = 0.0045Y + 0.05281008R + 0.039(P+C) + 1.0432VC$,
$Q = \max(Q^1, \text{mean of lowest 2 of } Q^2, \ldots, Q^5)$,

where

C, P = Mean currency receipts and expenditure, most recent 5-year period.
V, VC = Variability of annual exports and current receipts defined as a standard deviation from a centred 5-year moving average for the most recent 13-year period.

nomy have tended not to be sufficiently reflected in the countries' actual quotas.

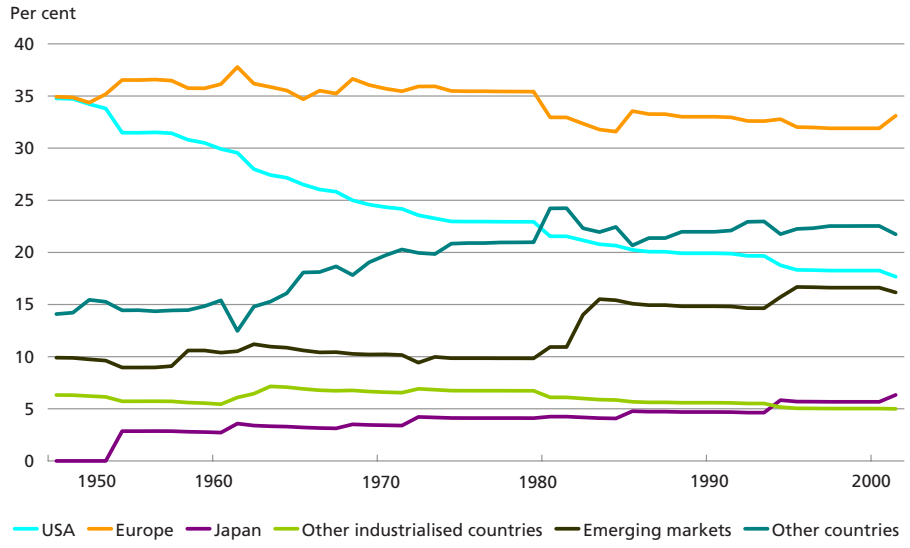
There are several factors behind the limited significance of the quota formulas and the resulting discrepancy between the member countries' relative quotas and the quotas calculated using the formulas.

- Although the discussions of all quota reviews are based on the quota formulas, to a wide extent they have been determined by political considerations. The reason is that the adoption of a general quota review requires 85 per cent of the votes, and thereby broadbased approval.
- The member countries will typically seek to prevent a decrease in their quotas, since the quota determines the country's voting power in the IMF's decision-making bodies.
- The quotas of the developing countries typically exceed the quotas calculated using the formulas, while the opposite applies to industrialised countries. Giving higher priority to the selective element in the quota reviews will therefore be resisted by the developing countries.
- It is not possible for a country to have its *absolute* quota reduced unless the country itself accepts the reduction.

Apart from the general reviews the IMF's Articles of Agreement make it possible under certain conditions to adjust a country's quota. China has requested an extraordinary quota adjustment due to such factors as the inclusion of Hong Kong in China.

The IMF had 45 member countries when it became operational in 1946. Since then, almost all countries have become members and the

SELECTED COUNTRY GROUPINGS' SHARE OF THE IMF'S OVERALL QUOTA SINCE 1948 Chart 1



Note: Other industrialised countries are Canada, Australia and New Zealand. Emerging markets comprise Argentina, Brazil, China, India, Mexico, Russia, Saudi Arabia, South Africa, South Korea and Turkey. Countries which were not among the original IMF members are included at zero weighting until the date of membership. This applies to e.g. Switzerland which did not become a member until 1992.
Source: IMF, *International Financial Statistics*.

IMF's current membership is 182 countries. All industrialised countries had become members by 1960, except Switzerland which joined the IMF in 1992. Since the beginning of the 1960s new members were primarily recently independent countries, and since the 1980s they have mostly been former planned economies.

On the establishment of the IMF the USA's dominant quota of 35 per cent reflected the country's economic weight, as well as its unique position at that time as the only issuer of a broadly accepted international reserve asset. The influx of new member countries and the growing significance of emerging markets have led to a reduction by half of the USA's quota to the current level of 18 per cent, cf. Chart 1. Europe's quota of around 35 per cent has been generally unchanged throughout the IMF's lifetime. The main factor behind the stability of the European quota is that several of the new member countries were European countries. The quota of the 12 original European member countries is now reduced to 22 per cent.

INTERNATIONAL ECONOMIC AND FINANCIAL DEVELOPMENT

Since the establishment of the IMF the world economy and the international financial system have undergone major changes in a number of respects of significance to the IMF's role as an international lender.

The collapse of the Bretton Woods fixed-exchange-rate system at the beginning of the 1970s and the transition to floating exchange rates created expectations of a reduced requirement for borrowing from the IMF to the extent that untenable balance-of-payments deficits would tend to be adjusted via the realignment of exchange rates. However, in practice the transition to floating exchange rates was no panacea against untenable balance-of-payments deficits and the IMF's resources remained available to member countries that were unable to finance their deficits in other ways.

The countries' economic integration via greater openness to both trade and capital flows has contributed to increased prosperity in many countries, but also to increasing vulnerability to changes in the economic and financial environment. This has led to new demands for IMF lending. Emerging markets have gained importance not only as recipients of IMF loans, but also as contributors. A number of emerging markets have joined the IMF as creditors and have thus contributed to improving the IMF's liquidity.

In view of these trends it has been discussed whether the previous system for determining the member countries' quotas should be subject to an exhaustive review.

THE PRINCIPAL RECOMMENDATION OF THE COOPER GROUP Box 2

The quota is calculated using the following formula:

$Q = \alpha Y + \beta V$,

Q = calculated quota,
Y = 3-year average of GDP,
V = external vulnerability[1],
α and β are relative weights, $\alpha = 2\beta$.

[1] Data for long-term capital flows for all member countries are not yet available, but the intention is to establish a suitable database for fluctuations in capital flows. The fluctuations are measured as standard deviations from the trend.

THE COOPER REPORT

The increase in the relative importance of emerging markets in the world economy and the equivalently diminishing position of the western economies have caused particularly the USA and Asian countries to press for a quota redistribution. A new quota formula was seen as the instrument to achieve this redistribution in the longer term.

With a view to recommending a new quota formula, in June 1999 an external working group under Professor Richard N. Cooper, USA, was authorised by the Executive Board of the IMF to review the quota formulas[1]. The Cooper Report was completed in September 2000. The principal recommendation, cf. Box 2, is a new and simpler formula with only two economic variables, one of which (GDP) indicates a country's ability to contribute to the IMF's resources, while the other indicates the country's potential need for financial assistance (measured in terms of variability of current receipts).

Indicators of member countries' ability to contribute

There is widespread support in QFRG for applying GDP as the central economic variable to determine a country's ability to contribute to the IMF's resources. However, there is some disagreement as to the method of conversion from national currency to SDR, the unit of account of the IMF. A number of developing countries call for purchasing power conversion on the grounds that the value of e.g. the output of developing countries is systematically undervalued in market rates. This is rejected by the majority of QFRG, since high GDP in terms of purchasing power parity does not reflect a corresponding ability to contribute to the IMF's

[1] The Quota Formula Review Group (QFRG) consisted of Richard N. Cooper (USA), Joseph L. S. Abbey (Ghana), Montek Singh Ahluwalia (India), Muhammad S. Al-Jasser (Saudia Arabia), Horst Siebert (Germany), György Suranyi (Hungary), Makoto Utsumi (Japan) og Roberto Zahler (Chile).

resources. In this context market exchange rates are the relevant measure.

The recommendations of QFRG emphasise that the IMF's creditors, typically the industrialised countries, should retain a majority of the votes in the IMF's Executive Board in order to allow the creditor countries to remain in control of the resources they make available to the IMF. The proposal is therefore that the weighting of a country's ability to contribute to the IMF's resources (GDP) should be twice as high as the weighting of the country's potential need for financial assistance (measured in terms of the variability of current receipts). Naturally, it is not possible to apply objective criteria to the specific weighting, but the basic approach of the Cooper Group was to achieve a suitable balance between the creditor and debtor countries in the IMF.

In conjunction with the old formulas QFRG rejected the foreign-exchange reserve as a measure of a country's ability to contribute. The argument is that the size of the foreign-exchange reserve has lost significance as an indicator of a country's ability to make hard currency available to the IMF, since access to financial markets has improved. According to this argument the central issue is a country's potential access to raise foreign exchange in the financial markets. The countries' access to borrow foreign exchange may have improved, but this source of financing has often dried up when the need for foreign exchange was most pronounced.

Indicators of a member country's borrowing requirement

The Quota Formula Review Group recommends the inclusion of a need-related variable in the quota formula, i.e. the variability of current receipts. Countries with volatile current receipts would hereby gain a higher quota and thereby improved access to borrow from the IMF, since access limits are determined by the country's quota. In order to take the capital flows' growing significance to the countries' external financing into account, it is proposed that long-term net capital flows be included in current receipts.

The inclusion of a need-related variable in the quota formula is no innovation in itself. The existing Bretton Woods formulas include such a variable, i.e. fluctuation in exports. The proposal to include fluctuations in the countries' capital flows in the quota formula nevertheless has the unfortunate side effect of "rewarding" countries which have pursued ever-changing policies with substantial outward and then substantial inward capital flows. According to the proposal, such countries would gain more voting power and greater access to borrow. The Danish position has been that the IMF's quota formulas should not reward countries

ESTIMATED QUOTA ADJUSTMENT AS PROPOSED IN THE COOPER REPORT Table 1

Per cent	Cooper Report (1)	Current quota (2)	Current calculated quota (3)	1 less 2	1 less 3
Country grouping					
USA	22.5	17.5	17.3	4.9	5.2
Europe[1]	31.3	32.8	39.7	-1.6	-8.4
Japan	13.2	6.3	10.2	6.9	3.0
Other industrialised countries[2]	4.3	5.0	4.7	-0.6	-0.4
Emerging markets[3]	12.6	16.0	11.6	-3.4	1.0
Other	16.1	22.4	16.5	-6.3	-0.4
IMF	100	100	100	0	0

Note.: The calculations were made using data for the 11th quota review, not the data for the upcoming 12th quota review. In addition, the calculations do not include the proposals in the Cooper Report to include the variability of the countries' net capital flows, so the calculations should be regarded as illustrative.

Source: IMF, *Staff commentary on the external review of the quota formula*, 6 June 2000.

[1] EU15, Norway, Switzerland, Iceland and San Marino.

[2] Canada, Australia and New Zealand.

[3] Argentina, Brazil, China, India, Mexico, Russia, Saudi Arabia, South Africa, South Korea and Turkey.

which have pursued unstable policies, which again have led to greater fluctuation in those countries' international payment patterns.

It has been proposed that population size be included in the factors applied to determine the quotas, but this variable was rejected by a majority in the Cooper Group.

An alternative to the Cooper Group's proposal is that countries with extraordinary borrowing requirements be accommodated by an extension of the general rules concerning access limits. The wishes of the developing countries to retain influence in the IMF, and perhaps even increase it, can be accommodated by raising the number of "basic votes" (the number of votes allocated to each country irrespective of its quota. This requires a difficult amendment of the IMF's Articles of Agreement, which is not the case for any adjustment of the quota formulas).

Illustration of the potential significance of the Cooper Report to the quotas

Preliminary calculations carried out by IMF staff, cf. Table 1, show that the application of the new formula would benefit major industrialised countries such as the USA and Japan, as well as major emerging markets such as Mexico and Brazil. The losers would in particular be the small industrialised countries in Europe (including Denmark) and small developing countries.

CONCLUDING REMARKS

The quota negotiations have only just begun and will probably invoke discussion of a number of related issues such as the structure and composition of the decision-making bodies of the IMF. The IMF's Executive Board consists of 24 members whereby each of the five largest countries appoints one member, while the other 177 member countries are allocated to constituencies which elect the other 19 members.

The issue of the representation of the western European countries on the Executive Board of the IMF has been raised in connection with the discussion of quota formulas. Currently, eight of the 24 members of the Executive Board are from western Europe[1]. It is argued that western Europe should be represented jointly by one member. This will not in itself affect the voting power of the individual countries. In the longer term, however, the euro may lead to pressure to exclude intra-euro area trade in the calculation of the quotas. This would reduce the calculated quota and thereby also the quota share and voting power of the euro area member states. If the western European countries were represented jointly in the IMF's Executive Board, the representation of other continents could obviously increase.

The Cooper Report was met with some reserve when presented to the IMF. The recommendations of the report were not strongly supported, but were rather viewed as one of many options. The quota discussion has thus only just begun and it can be expected that quite some time will elapse before concrete changes are implemented.

One reason is that in practice the redistribution of the relative quotas can only be achieved via a general increase of all quotas. At present, the IMF has ample liquidity due to a significant decrease in new lending and large repayments on previous loans. Against this background it appears that a general quota increase will not be needed in the next few years. Moreover, quota adjustments require an 85-per-cent majority. A quota increase could be resisted by the US Congress which in recent years has been very reluctant to increase the USA's financial contribution to the IMF's resources.

[1] Including the member for the Spanish/Latin-American constituency who is appointed by Spain and Mexico alternately.