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REFLECTIONS ON THE INTERNATIONAL
MONETARY SYSTEM

ARIEL BUIRA



INTERNATIONAL FINANCE SECTION

DEPARTMENT OF ECONOMICS
PRINCETON UNIVERSITY
PRINCETON, NEW JERSEY

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REFLECTIONS ON THE INTERNATIONAL MONETARY SYSTEM

The international monetary cooperation that culminated at Bretton Woods with the establishment of the International Monetary Fund (IMF) and the World Bank laid the groundwork for the economic order that was to prevail throughout most of the world for the next fifty years. The fiftieth anniversary of the Bretton Woods conference provides a good opportunity to take stock of what the past has given us and to look ahead to what the future may bring. To that end, this essay will analyze some central issues in the current monetary system, evaluate that system's performance, and consider the advisability of reform. Of particular relevance are the problems of the exchange-rate system, international liquidity, the adjustment process, and the structure of IMF quotas (that is, IMF governance).

1 The Exchange-Rate System

The current exchange-rate arrangements follow from the collapse of the fixed-rate system established at Bretton Woods. Under the fixed-rate system, countries set their exchange rates against the U.S. dollar, which in turn was pegged to gold. Central banks kept exchange rates within a narrow margin of these par values by intervening in the foreign-exchange market and by using interest-rate policy or foreign-exchange controls to influence capital flows. Any change in par values was subject to approval by the IMF and was only allowed under conditions of "fundamental disequilibrium."

The fixed-rate system functioned fairly well until the 1960s, enabling an unprecedented expansion of the world economy and trade. It came under increasing pressure at the end of the 1960s, however, primarily because of U.S. expansionary policies stemming from an ambitious social program and from expenditure on the war effort in Vietnam.

This essay is a revised and expanded version of a lecture delivered in Madrid to the International Monetary Fund and World Bank governors from Latin America, Spain, and the Philippines on the occasion of the fiftieth anniversary of the Bretton Woods institutions. The lecture was published by the Centro de Estudios Monetarios Latinoamericanos under the title *Reflexiones sobre el sistema monetario internacional*.

Divergent policy objectives among a number of industrial countries also contributed to tensions. The system entered into crisis in 1971 when, facing the need to correct its budget disequilibrium and apply deflationary policy, the United States decided instead to sever the peg between the dollar and gold. After several unsuccessful attempts to restore the old order, the fixed-rate system was finally abandoned in 1973.

The Bretton Woods fixed-rate system was replaced with the system of floating rates among the major currencies that is still in effect today. This system was codified by the Second Amendment to the IMF's Articles of Agreement, which reads:

Under an international monetary system of the kind prevailing on January 1, 1976, exchange arrangements may include (i) the maintenance by a member of a value for its currency in terms of the special drawing right or another denominator, other than gold, selected by the member, or (ii) cooperative arrangements by which members maintain the value of their currencies in relation to the value of the currency or currencies of other members, or (iii) other exchange arrangements of a member's choice. (Article IV, Section 2[b])

Under the floating-rate system, which gives countries the freedom to adopt the exchange arrangements of their choice, the international regulation of exchange rates has to all intents and purposes been abandoned.

The floating-rate system enabled the world economy to cope with the oil crises of 1973 and 1979 and to accommodate with relative ease the rapid growth of international financial markets and the growing economic weight of Europe and Japan. Nevertheless, many observers believe that its performance has been unsatisfactory, because exchange rates have been very volatile under the system and exchange-rate misalignments have been frequent.

Although movements of several percentage points frequently occur in the exchange rates of the principal currencies within a period of a few weeks, the impact of this volatility on trade and investment flows does not appear to be significant (Gagnon, 1993).¹ Of greater importance to the world economy are the effects on international trade of exchange-rate misalignments among the principal currencies, such as

¹ Some recent studies, however, have found an adverse impact of short-run volatility on trade, investment, and other real variables. See, for example, Chowdhury (1993) and the papers cited by him.

the excessive appreciation of the dollar during 1984 and 1985, the overvaluation of the pound sterling from 1979 to 1981, and the appreciation of the yen beginning in 1993.

The damage done by misalignments is clear. Recall, for example, the stagnation of U.S. exports accompanying the dollar's appreciation during the mid-1980s and the recovery of U.S. exports following the dollar's depreciation a few years later. More recently, the revaluation of the yen has led to a decline in Japan's exports, slowing its economic recovery. It should also be pointed out that in several episodes involving appreciation of the dollar and the pound, the behavior of the exchange rates for these currencies had nothing to do with the fundamental economic conditions in their respective economies. Instead, the exchange rates reflected an expansionary fiscal policy coupled with a restrictive monetary policy at a time when the authorities explicitly refrained from intervening in the exchange markets.

Although the performance of the foreign-exchange markets has from time to time required the major industrial countries to take joint measures, as in the Plaza Agreement and Louvre Accord of 1985 and 1987, it is obvious that these countries are not making major efforts to keep their exchange rates within relatively narrow limits.² It would seem that the governments of the three principal industrial countries believe that the benefits of stabilizing the exchange rates for their currencies would not offset the attendant loss of flexibility in domestic policy management.

Beginning in 1973, growth rates for the world economy and international trade fell below levels for previous decades, whereas the world inflation rate rose. Although it cannot be said with certainty that renouncing the par value system was a decisive factor behind these trends, there can be no doubt that the budget deficits of industrial countries began to rise thereafter. Accordingly, many of these countries virtually abandoned fiscal policy as a stabilization instrument and became excessively dependent on monetary policy to achieve domestic and external equilibrium.

Recent critics of the present system, such as the Bretton Woods Commission convened by Paul Volcker, believe that the lack of policy coordination among the principal industrial countries has contributed to the world economy's unsatisfactory performance. The commission

² The case of member countries of the European Union, seeking monetary union as a step toward possible political union, is an exception.

urges the governments of the Group of Seven (G-7) countries to give priority to the reform of the international monetary system with a view to reducing exchange-rate volatility and misalignments. To this end, the commission recommended to these governments that they (1) strengthen their macroeconomic policies, with the aim of achieving greater convergence, and (2) establish a system based on credible commitments, perhaps ultimately including exchange-rate bands, in support of more effective economic policy. According to the commission, the IMF faced an identity crisis with respect to its objectives when the par value system was abandoned in the 1970s. Although the IMF came to play a valuable role in recycling petrodollars during the 1970s, in solving the debt crisis during the 1980s, and in assisting the systemic transformation of the former Communist countries during the 1990s, it abandoned its original task of stabilizing the exchange-rate system.

The G-7 countries have intermittently attempted to coordinate their policies with a view to stabilizing exchange-rate expectations, but they have done so only in response to the pressures of the moment. Rather than reacting on a sporadic, *ad hoc* basis, these countries should give priority to the stability of the international monetary system. In addition, the IMF should refocus its activities on its original mandate to ensure the proper functioning of the international exchange-rate system. To this end, the commission argues, the IMF should play a greater role in economic policy coordination.

To be viable, international economic policy coordination requires balanced national fiscal policies. With the sizable deficits observed in industrial countries during the 1970s and 1980s, monetary policy carries an excessive burden, even before it is assigned the task of exchange-rate stabilization. In order to achieve exchange-rate and price stability along with sustained economic growth, it is essential that the G-7 countries strengthen their government finances. When the concerns of the Latin American countries are taken into account, at least two additional considerations are added to the important arguments of the Bretton Woods Commission:

(1) The persistent, substantial budget deficits of the industrial countries absorb a considerable share of world savings and contribute to the rise in interest rates, a circumstance that deters investment and aggravates the problems of debtor countries and capital-importing countries. An exchange-rate system requiring more fiscal discipline of the major industrial countries would increase savings in those countries and thereby increase world savings. It would therefore contribute to growth in both the world economy and the developing countries.

(2) In addition to achieving a better alignment of the major currencies, policy coordination could increase economic growth in the industrial countries, which would help reduce unemployment and protectionism in those countries and thus usher in an expansion of international trade. In fact, as Fred Bergsten (1994, p. 281) points out, the avoidance of misalignments would help combat protectionism: “When the exchange rate gets too far out of line, political pressures become overwhelming. Even the most competitive industries are unable to compete; they lose market share and join others seeking protection.”

Can the exchange-rate system be improved? The IMF is currently charged with exercising “firm surveillance” over the policies of member countries to influence their exchange rates, fiscal and monetary policies, inflation-rate convergence, and structural policies to improve the operations of markets. This surveillance is carried out primarily through annual consultations with member countries and in the IMF’s semiannual discussions of the world economic outlook. These latter discussions aim, in particular, at influencing the policies of the major industrial countries. The experience of the past twenty years, however, shows that the IMF’s surveillance over the policies of the major industrial countries has been ineffective, because these countries have been unwilling to modify their policies to benefit other members of the G-7 or the European Union (EU). Recent German monetary policy and U.S. fiscal and exchange-rate policies are evidence of this reluctance.

The world economy would definitely benefit from a more stable exchange-rate system. To achieve such a system, however, the major industrial countries must be convinced that the direct benefits they will derive from greater exchange-rate stability will exceed the costs in terms of reduced economic policy independence. In other words, they must be persuaded to subordinate their short-term economic and political objectives to the achievement of medium-term systemic progress. The costs to these countries of accepting a fixed exchange system are reduced to the extent that markets are convinced of the authorities’ commitment to prudent monetary policies. Credibility attracts stabilizing capital flows, thereby reducing the need for exchange-rate adjustments to achieve policy objectives.

It is clear that the operation of the exchange-rate system cannot be improved without amending the rules that govern it, so as to commit the major countries to this objective. The costs to the principal countries of making this commitment are likely to decrease the higher the degree of policy and inflation-rate convergence; the incentives to accept reform will increase the greater the instability of exchange rates.

It may therefore take another foreign-exchange crisis before decisive progress can be made in this regard.

Because it would be difficult to return to a fixed-rate system, it seems desirable to move toward a system encompassing certain basic rules, such as intervention bands, that will promote greater policy coordination and convergence. Such a system would limit the shortcomings of the current arrangement but would nevertheless allow some degree of flexibility for countries to adapt to changes in the underlying conditions in their economies. This new system would require a commitment by the major countries, so as to provide an anchor for monetary policy as well as to promote a degree of fiscal discipline.

In light of the existing power structure, the task of reform is primarily political. It will not be possible to move toward reform unless the major industrial countries can be convinced to reorder their policy priorities and establish a more structured system. As a first step, it might be useful to initiate a multilateral dialogue on this subject. The fiftieth anniversary of Bretton Woods is a good time to remember that international cooperation is often the best way to achieve national objectives. A stable monetary system requires that certain minimum rules govern the conduct of economic policy in the major industrial countries. Without such rules, stability cannot be achieved.

2 International Liquidity and the Requirements of the World Economy

The Articles of Agreement of the IMF state that the IMF's purposes are, *inter alia*, to promote international monetary cooperation and exchange-rate stability, to promote the expansion and balanced growth of international trade, and to contribute thereby to the promotion and maintenance of high levels of employment and real income and to the development of the productive resources of all members. The IMF is to make its general resources temporarily available to its members under adequate safeguards, thus providing them with the opportunity to correct balance-of-payment maladjustments without resorting to measures destructive of national or international prosperity.

In 1969, twenty-five years after the IMF was established, the First Amendment of the Articles of Agreement expanded the IMF's responsibilities in matters concerning international liquidity by authorizing the IMF to create the Special Drawing Right (SDR). The purpose of the SDR was to enable the IMF to increase the supply of reserve assets in a timely manner whenever the need arose. The SDR was to serve a

number of objectives, which the IMF's managing director summarized as follows: (1) to expand international trade, economic activity, and development, (2) to promote a multilateral payments system and the elimination of exchange restrictions, (3) to promote exchange-rate stability and orderly exchange-rate adjustments, (4) to correct balance-of-payments disequilibria without resorting to measures destructive to national or international prosperity, and (5) to prevent economic stagnation and deflation, as well as excess world demand.

The First Amendment expressed the international community's dissatisfaction with a monetary system in which the main source of liquidity was the U.S. balance-of-payments deficit and the community's desire for a more rational and effective mechanism to adjust the supply of international reserves to the overall requirements of the world economy. Let us examine the current situation and appraise the performance of the system in the light of the Articles of Agreement and the First Amendment.

The Demand for International Reserves

International liquidity is commonly defined as including all internationally acceptable means of payment that are readily available to a country's authorities to finance its balance-of-payments deficit or to intervene in the foreign-exchange market and stabilize its currency. It is a broader concept than international reserves. It is also somewhat vague and almost impossible to measure; for example, a country's liquidity may be increased by securing potential access to financing from the markets, without any increase of its reserves. Quantitative analyses therefore typically rely on the measurement of international reserves to approximate the measurement of international liquidity.

The economic literature reflects a wide debate on the factors influencing the demand for international reserves (for example, Cooper, 1970; Landell-Mills, 1988). The most frequently mentioned are (1) requirements of governments and individuals engaged in international transactions—there is a direct relation between the demand for reserves and the volume of international trade, the variability and seasonality of income and expenditure in foreign exchange, and the extent of payments disequilibria, (2) requirements for intervention in the foreign-exchange market to stabilize or influence currency values, and (3) the need to show a strong financial position and to cope with various contingencies.

Numerous papers have been devoted to the econometric estimation of the demand for international reserves, using both equilibrium and disequilibrium models (see, for example, Heller and Khan, 1978; Bilson

and Frenkel, 1979; Frenkel, 1983; Lizondo and Mathieson, 1987; Landell-Mills, 1988). Equilibrium models assume that supply and demand are equal during every period. Disequilibrium models allow supply and demand to differ, that is, they describe a process for adjusting holdings whereby the change in reserves during a period depends on the difference between desired and actual reserves at the end of the previous period. Despite this conceptual difference in formulation, the independent variables used as determinants of the demand for reserves are similar in the two types of models.

A recent study (Buirra, 1994) estimates the demand for international reserves using the equations employed by Frenkel (1983) and Lizondo and Mathieson (1987) in an equilibrium model and by Bilson and Frenkel (1979) in a disequilibrium model. These new estimates cover a longer period than the original estimates and include more recent years. The results are quite similar to those obtained in the earlier work. In summary, the following conclusions can be drawn:³

(1) There is a stable relation between the demand for international reserves and national output, the average propensity to import, and the variability of international transactions.

(2) The demand of developing countries for reserves tends to be more sensitive to changes in income and international trade than the demand of industrial countries. This can be explained by the fact that developing countries have limited access to secondary sources of international liquidity and thus tend to accumulate relatively higher levels of reserves. In addition, some industrial countries are issuers of reserve currencies, so that their demand for reserves tends to be less sensitive to the variables under consideration.

(3) The national product is the variable that most strongly influences the demand for reserves.

(4) Elasticities of the demand for international reserves estimated for developing countries are higher for the 1982-92 period than for the 1975-81 period. This can be interpreted as reflecting an increased reliance on *international* reserves as a source of liquidity, especially after 1982, when the access of developing countries to international credit was sharply curtailed. The increases observed in the elasticities pertaining to the variability of international transactions and to changes in the average propensity to import are noteworthy.

³ A more detailed description of the estimated regression equations is provided in the appendix to this essay.

There are also differences in the elasticities of demand for reserves between reserve-currency countries and other industrial countries. As we might expect, the reserve-currency elasticities pertaining to the average propensity to import and the variability of international transactions are lower for reserve-currency countries than for other industrial countries.

It is important to point out that the existence of a stable relation between the demand for reserves, on the one hand, and world production and trade, on the other, provides a basis for estimating the liquidity requirements of the world economy.

The Sources of International Liquidity

The primary sources of international liquidity are gold, foreign exchange (reserve currencies and public-debt instruments), and allocations of SDRs by the IMF. The process of financial intermediation between governments, central banks, and official and private international financial institutions builds on these primary sources, which constitute the “world monetary base.” The secondary sources of international liquidity are the issue and exchange of financial instruments allocating and multiplying the initial supply of reserve assets.⁴

With the abandonment of the dollar’s convertibility into gold, the end of the par value system, and the adoption of floating exchange rates beginning in 1971, gold lost importance as part of the total “world monetary base.” Whereas in 1971, gold accounted for 40 percent of the international reserves of IMF member countries, its share dropped rapidly to 9 percent by 1980 and to 4 percent by the end of 1993 (see Table 1). The proportion of foreign exchange in total international reserves increased correspondingly from 57 percent in 1970 to 94 percent in 1993.

When a reserve-currency country registers a payments deficit, it has considerable freedom to avoid correcting the deficit, because acceptance by the rest of the world of its currency enables it to finance its external deficits by issuing its own currency. This means that, unlike other countries, reserve-currency countries are not required to pay for

⁴ The possibility of multiplying the primary-payment media derives mainly from the existence of the eurocurrency markets. According to Friedman (1971, p. 21), “the existence of the Euro-dollar market increases the total amount of dollar balances available to be held by nonbanks throughout the world for any given amount of money (currency plus deposits at Federal Reserve Banks) created by the Federal Reserve System.” The pyramiding itself uses deposits with banks in the United States as contingency reserves for eurodollar deposits.

TABLE 1
THE COMPOSITION OF INTERNATIONAL RESERVES
(percent of total)

	Gold ^a	SDRs	Foreign Exchange
1970	39.8	3.4	56.9
1975	18.4	4.5	77.1
1980	9.4	3.3	87.2
1985	7.6	4.2	88.2
1990	4.9	3.0	92.1
1991	4.7	2.9	92.4
1992	4.5	1.8	93.7
1993	4.1	1.9	94.1

SOURCE: IMF, *International Financial Statistics*.

^a Valued at SDR 35 per ounce.

imports by selling goods and services abroad. They enjoy, in effect, the great privilege of international seigniorage.⁵

Of the reserve-currency countries, the United States has made the widest use of seigniorage. Because the U.S. balance-of-payments outcome, which depends on U.S. saving and investment levels, is influenced by domestic economic policy measures, its balance of payments and its contribution to the international monetary base cannot be expected to coincide with the liquidity requirements of the world economy.

Although primary liquidity creation is the exclusive prerogative of reserve-currency countries, the rest of the industrial countries also have no problem meeting their demand for international reserves. First, they have broad access to secondary sources of liquidity. Second, lines of credit between their central banks (swaps) allow them rapid access to large amounts of resources. They can therefore adjust fairly smoothly and at minimum cost to untoward contingencies.

For the developing countries as a group, access to international financing has reached high levels in the past few years. In 1993, the net flow of resources to these countries increased by 44 percent in real

⁵ Seigniorage is the net income collected by monetary authorities in connection with the issue of currency. It may be defined as the present value of revenue from investments financed by issuing monetary obligations *less* the present value of interest payments to the holders of these obligations.

terms (World Debt Tables, 1993-1994).⁶ Foreign direct investment increased at a rate of 36 percent per annum during the 1990-93 period. Moreover, there is clear evidence that world demand for the securities of developing countries has grown substantially; the participation of developing countries in worldwide bond issues increased from 4 percent in 1991 to slightly more than 12 percent in 1993. At the same time, participation in total share placements abroad amounted to 41 percent in 1992 and 23 percent in 1993 (IMF, 1994, tables A10 and A11). Only a few of the developing countries, however, benefit from this large flow of resources. In 1992, just five countries accounted for 59 percent of total foreign direct investment in all developing countries. Moreover, of the more than 150 countries listed by the IMF as developing countries, only twenty-seven currently participate in international securities markets, and seven of these shared 85 percent of the bond issues and more than 50 percent of the share placements among developing countries in 1992.⁷

The situation of the low-income developing countries and “economies in transition” is particularly difficult. The main sources of external financing for these countries are international financial institutions and loans from other governments. In some of these countries, the lack of qualified professional staff makes even the preparation of project proposals a serious problem. In other countries, resources are insufficient to provide the counterpart funding required for some loans. In addition, other forms of fast-disbursing financing are often contingent on the adoption of economic policies that may meet with considerable local political resistance.

Resources from official sources, moreover, have declined. Net transfers of resources to low-income countries by official (bilateral and multilateral) institutions fell from an average of \$10.6 billion from 1987 through 1989 to \$8 billion in 1992.⁸ At the same time, with the collapse

⁶ This is the sum of net flows of official and private long-term debt financing plus grants (not including technical assistance) and the net flow of direct and portfolio investment.

⁷ The five countries that corner the market in foreign direct investment are Argentina, China, Malaysia, Mexico, and Thailand. The seven that account for the bulk of securities placements are Argentina, Brazil, China, Hungary, Mexico, South Korea, and Turkey. Even more striking is the fact that Argentina and Mexico accounted for 66 percent of the flow of foreign direct investment to Latin America in 1992, and that Mexico alone accounted for 33 percent of the bonds and 25 percent of the shares placed abroad by all developing countries.

⁸ Disbursements less amortization and interest payments (World Debt Tables, 1993-1994).

of the Soviet Union, the number of countries competing for this financing has suddenly increased (IMF membership grew from 155 to 178 countries from 1991 to 1993). In response to both the enormous financial needs and the acknowledged political importance of the former Soviet republics, international organizations have channeled significant resources to the region. The participation of the former socialist economies in official development assistance flows increased from 1.4 percent in 1990 to 7.1 percent in 1992. This reallocation of resources limits the amounts available for the rest of the developing countries. Of these, the low-income countries have been most severely affected.

The low-income countries, which contain 60 percent of the world's population and include the countries with the greatest and most urgent external financing requirements, accounted for less than 30 percent of the total flows of financial resources to developing countries from 1990 to 1993. Scarce reserves make these countries highly vulnerable to any adverse contingencies. Their lack of access to external credit gives them little leeway to cope with external payments problems. Consequently, they must frequently make significant adjustments in domestic demand to meet their external obligations. This situation leads to low investment and economic growth rates, with the perpetuation of high levels of poverty and unemployment. Requiring low-income developing countries to reconstitute their international reserves, thereby reducing their imports and growth rates, is inconsistent with the overall strategy of international cooperation aimed at achieving both their development and the expansion of trade and the world economy.

The role of the IMF merits special attention in light of its capacity to influence the level of international liquidity. Under the First Amendment to its Articles of Agreement, the IMF is called upon to play an important role in creating and distributing international liquidity. It has the power to allocate SDRs to member countries in proportion to their IMF quotas.

Although the SDR is the first reserve asset to be created by international decision, with the ultimate purpose of serving as the world's principal reserve asset, its share in total international reserves fell from 4.8 percent in 1971 to 1.9 percent in 1993. This decline reflects the infrequency and limited size of SDR allocations, which were first created in 1969 and last allocated in 1981.⁹

⁹ In addition, the attributes of the SDR have limited its attractiveness. Unlike any other international reserve asset, the SDR can be held only by the monetary authorities of IMF member countries and fifteen other official holders. Because there is no market

Distribution and Adequacy of International Reserves

Analysis of the distribution of total international reserves from 1960 to 1993 shows that the relative shares of the industrial and developing economies have changed considerably (Table 2). From 1960 until the early 1970s, industrial countries held approximately 80 percent of total international reserves, and developing countries held the remaining 20 percent. The increase in international oil prices in 1973-74 led to a major transfer of resources and reserves to certain oil-exporting developing countries. Consequently, there was a considerable shift in the distribution of international reserves. The share of the industrial countries was reduced to approximately 60 percent by 1975, a situation that was sustained with some fluctuations through 1993. The downward trend in the industrial-country share in total reserves is largely explained by the development of the reserves of the reserve-currency countries, especially the United States (Table 2). Expressed as a percentage of world total, U.S. reserves declined from 32 percent to less than 7 percent between 1960 and 1993. This decline was the result of a combination of factors, including the widening of the U.S. balance-of-payments disequilibrium and the privileged position of the United States because the U.S. dollar is an internationally accepted payment instrument.

Even more interesting is what happened to the distribution of reserves among the developing countries. For analytical purposes, these countries can be divided into three groups. The first group includes eighteen countries that currently have voluntary access to international capital markets¹⁰; the second includes oil-producing countries not included in the first group¹¹; the third is composed of the remaining developing countries. Data for the three groups are shown in Table 2.

outside the IMF on which the SDR can be exchanged directly for other reserve assets or negotiable instruments, it cannot be used to intervene in the foreign-exchange markets. This greatly limits its utility as a reserve asset.

¹⁰ This group includes Argentina, Brazil, Chile, China, Colombia, Hungary, Indonesia, Israel, Malaysia, Mexico, the Philippines, Singapore, South Africa, South Korea, Taiwan, Thailand, Turkey, and Venezuela. Other developing countries with access to international capital markets were excluded because information was insufficient or not provided in the past two years, or because they accounted for less than 0.5 percent of total bonds and/or shares issued on foreign markets. Although the eighteen countries under consideration have had access to capital markets, access has been insufficient in many cases.

¹¹ Although some of these countries have voluntary access to international capital markets, their participation has been negligible.

TABLE 2
SHARES IN TOTAL RESERVES BY COUNTRY GROUP
(percent of total)

	1960	1970	1980	1990	1993
Industrial countries	83.9	77.9	60.5	65.9	55.7
Reserve-currency issuers ^a	57.2	43.7	35.0	33.1	29.6
United States	32.3	15.5	6.1	8.9	6.9
Nonissuing countries	26.7	34.2	25.5	32.9	26.1
Developing countries	16.1	22.1	39.5	34.1	44.3
Countries with access to international capital markets	7.5	11.1	14.7	24.6	33.4
Oil-exporting countries ^b	2.3	4.0	16.1	3.8	1.6
Remaining countries	6.3	7.1	8.7	5.7	9.3

SOURCE: IMF, *International Financial Statistics*.

^a France, Germany, Japan, the United Kingdom, and the United States.

^b Although some of these countries have voluntary access to international capital markets, their participation has been negligible.

The increase in the developing countries' share of total reserves from 1960 through 1993 can be attributed to the developing countries that had access to international capital markets: the share of reserves held by them shows a continuous upward trend from 7.5 percent in 1960 to 33 percent in 1993.¹² The situation for the rest of the developing world is very different. The first oil shock enabled oil-exporting countries to raise their share of reserves substantially during the early 1970s, although that share declined continuously in subsequent years and was lower in 1993 than in 1960. For the other ninety-four developing countries, no major change was observed during the period studied; in 1993, these countries held just over 9 percent of world reserves.

The distribution of international reserves is extremely uneven. At present, twenty-two industrial countries and eighteen developing countries control 89 percent of international reserves. In addition, 138 developing countries do not have voluntary access to international capital markets, and it is estimated that 110 developing countries, which account for approximately 25 percent of the world's population, hold only 11 percent of total international reserves, levels that are

¹² For a number of these countries, however, the increase in international liquidity was accompanied by growth in the ratio of external debt to reserves.

insufficient to enable them adequately to tap their economic potential.¹³ These 110 countries are precisely those that have the lowest standards of living and the greatest need for international reserves. Because of difficulty in gaining access to reserves, they are forced to compress their imports, adversely affecting their development (and also reducing the exports of their trading partners). The managing director of the IMF recently stated that

at the end of 1993, more than one in three developing countries and one in two countries in transition held reserves equivalent to less than eight weeks of imports, with many of these countries holding reserves far below that meager level. Many of these countries are implementing strong policy programs supported by the Fund, but would be able to acquire more adequate reserves only through expensive borrowing in the market—in the few cases where markets would be prepared to lend—or compression of domestic demand and imports that would be inimical to their adjustment, reform, and growth efforts. (Camdessus, 1994)

These problems stem basically from the fact that no international organization currently evaluates the liquidity requirements of the global economy or of different groups of countries. According to its Articles of Agreement, the IMF should assume responsibility for this task. The existence of a stable relation between the demand for international reserves and the growth in world production and trade makes it possible to estimate the world economy's liquidity requirements. The IMF should be required to carry out this calculation as one of its central duties.

Improving Access to Reserves

Despite the objectives endorsed by the international community since Bretton Woods, and, in particular, by the First Amendment to the Articles of Agreement of the IMF, the growth of international liquidity is still dependent on the payments disequilibria of the world's major economies, which continue to be the primary source of international liquidity. This arrangement results in a distribution of reserves that is inefficient and inequitable. Furthermore, access to secondary sources of international liquidity is confined largely to the industrial countries and to a few developing countries. Most other countries have insuffi-

¹³ There are twenty-eight developing countries that do not report their reserve holdings to the IMF. However, it is estimated that the reserves of this group, which includes most of the former Soviet republics, are very low.

cient access to liquidity and must limit their imports and levels of economic activity to avert payments crises.

The IMF has not played the central role entrusted to it with regard to creating and distributing international reserves. Although it was agreed that the SDR should become the principal reserve asset, its share in international reserves has declined sharply, and it is of little significance. The deficiency in creating and distributing international reserves can be attributed largely to the fact that no institution or authority evaluates the world's liquidity requirements and the arrangements for meeting those requirements. It would therefore be a pure coincidence if the supply of international liquidity were to meet the requirements of the various country groups, particularly those of the developing countries.

Just as the central bank of each country estimates the liquidity requirements of its economy every year, using certain assumptions about economic growth and the price levels, so the IMF should conduct an annual exercise to assess the liquidity requirements of the world economy, the probable expansion of liquidity, and the access of various countries or groups of countries to the various sources of international liquidity. Taking account of this analysis, the international community should, through the IMF, consider appropriate measures to adjust the supply of international liquidity with a view to achieving stable growth.

The Recent Controversy over the SDR

Many of the issues raised above took on a new urgency in 1994, when the question of the SDR allocation came before the IMF's Interim Committee at its meeting in Madrid. For a number of years, the managing director and the staff of the IMF, as well as a majority of the executive directors—who represent a large number of member countries—have believed that a new allocation of SDRs is fully justified. The case for an SDR allocation has been based on the following considerations:

(1) There is ample econometric and empirical evidence that the demand for reserves will grow by several hundred billion dollars during the coming years, in line with the growth of world trade and international capital transactions.

(2) Of the total increase in the demand for reserves, an important part will correspond to the needs of developing countries and countries in transition that have low levels of reserves by usual standards of reserve adequacy. To acquire the additional reserves necessary to reach

more normal levels, these countries would have to follow policies, such as unnecessary import compression, that would be damaging to their own growth prospects as well as to the world economy. The cost to these countries of acquiring reserves and the costs to the world economy would, therefore, substantially exceed the true economic opportunity cost of creating the additional reserves through an SDR allocation.¹⁴ Furthermore, an SDR allocation would contribute to world economic activity and the expansion of international trade by relieving the liquidity shortage experienced by a number of developing countries.

(3) The reserve stringency faced by the many members that are undertaking substantial stabilization and transformation efforts increases the risk of widespread setbacks or failures. An SDR allocation would help alleviate this reserve stringency and therefore improve the prospects for successful stabilization and transformation.

(4) An SDR allocation of the size being contemplated poses virtually no risk of raising the global rate of inflation. The liabilities of the main industrial countries, which constitute the bulk of international reserves, and the growth rate of those liabilities are the main determinants of the global inflation rate. Therefore, it would seem highly probable that an SDR allocation of the size being considered could be accommodated in the monetary programs of the recipient countries.

(5) An SDR allocation would impart an element of stability to the supply of reserves, which would reduce the vulnerability of countries that rely heavily on private sources of credit.

(6) An allocation would help advance the objective of making the SDR the principal reserve asset of the international monetary system as mandated by the Articles of Agreement of the IMF.

In spite of these arguments and the fact that the creation of SDRs imposes no cost on the world economy or on individual countries, an

¹⁴ The issue of whether the SDR system gives rise to a resource transfer has been extensively debated. An important distinction has to be drawn between the allocation itself and the net use of SDRs after the allocation. SDRs are costless to create: therefore, an allocation does not imply any resource transfer. Similarly, the use of SDRs to acquire another reserve asset does not imply any transfer of real resources; it is simply a swap of one reserve asset for another. However, spending SDRs on real resources does imply a current transfer of real resources, which is financed by interest payments and, at some point, principal payments. Because the interest rate on the use of SDRs is a market rate, countries that “extend credit” to the users of SDRs are receiving a market return for that credit. Experience shows, moreover, that countries with excess holdings of SDRs have willingly maintained them. Their behavior as net creditors in the SDR account thus shows that they are satisfied with the return on their SDR holdings.

important group of countries, including Germany, the United States, the United Kingdom, Australia, Canada, Japan, and (recently) Italy have opposed a new SDR allocation, maintaining that it would be inflationary and that there is no long-term global need to supplement international reserves. These countries recognize that a number of developing countries face reserve stringency. They argue, however, that this is not the basis on which SDRs should be allocated under the Articles of Agreement. They point out that most of the industrial countries have had a healthy buildup of reserves over the last decade and that recently emerging market economies have had no trouble building up their reserves. The Germans seem particularly worried that an SDR allocation at this juncture could create a precedent and that a succession of allocations would revitalize an international monetary asset the creation of which does not depend on the policies of a central bank of an industrialized country. In their view, this would pose an inflationary danger to the world economy.¹⁵

Because an SDR allocation requires an 85 percent majority, the above-mentioned countries have succeeded in blocking a new allocation

¹⁵ Gert Haller (1994), German state secretary of finance, spoke at the conference organized by the Bretton Woods Commission: "The IMF must nevertheless constantly review its traditional approaches and instruments to see whether they are still appropriate. This includes the question of special drawing rights. Given the abundant liquidity of the international financial markets it seems strange to maintain a system of artificial reserves which were created under completely different circumstances. It is fully in line with the general philosophy of the IMF that countries lacking adequate creditworthiness should be supported by its regular *conditional* resources. Against this background, there is no global need for SDRs now and in the foreseeable future. Therefore, I would like to suggest a review of the Articles of Agreement. However, if the SDR system should be maintained we have to find a way for the inclusion of the new members."

Another example of the German point of view is provided by the remarks of Mr. Hans Tietmeyer (1994), president of the Bundesbank, at the conference celebrating the fiftieth anniversary of the Bretton Woods institutions in Madrid in September 1994: "To my mind, . . . the chances of making the Special Drawing Right the principal reserve asset in the international monetary system by substituting SDRs for the present Multi-Currency Reserve System are rather slim. We should also be realistic about the role of SDRs in the foreseeable future. Given the global framework, . . . pushing the role of SDRs in our system could be counterproductive, and could destabilize rather than strengthen our monetary system. Obviously there is no long-term global need for supplementing existing reserve assets. It is for these reasons that some members have expressed doubt as to whether there is a factual justification for general allocations of SDRs in present circumstances. On the other hand, there are good reasons for being in favor of enabling the Fund's new members to participate fully in the SDR system through a *special* allocation of SDRs ensuring the equitable participation of all members in the SDR mechanism."

over the last decade. As the former Soviet republics have joined the IMF, however, the position of the opposing countries has changed somewhat. The industrial countries have come to acknowledge that there is a case for a special or selective SDR allocation to benefit the new member countries that have not participated in previous allocations.¹⁶ Because a special allocation is not possible under the Articles of Agreement, which require allocations to be general, an amendment to the Articles would be necessary. This, in turn, would require an 85 percent majority, as well as the ratification of the amendment by the legislatures of the member countries.

The developing countries have opposed an amendment aimed at permitting a selective SDR allocation, which not only would not benefit them but, worse yet, would make future general allocations even more difficult to obtain. Moreover, the amendment proposal would seemingly introduce an *ad hoc* change in the basic law of the IMF, reflecting the desire by a group of countries to provide financial assistance to the former Soviet republics without making the necessary budgetary contribution. Although the developing countries favor the participation of the former Soviet republics in the SDR system, they believe that they should participate through a general SDR allocation, a solution opposed by most of the G-7 countries.

The United States and United Kingdom, with the subsequent support of the G-7, proposed a compromise with the following initial elements:

(1) No general allocation of SDRs was warranted at present; thus, the traditional mechanism for SDR allocation would not be used, and there would be no recognition of the existence of a global need for reserve supplementation.

(2) The so-called “issue of equity” would be resolved through a *specific* allocation to those member countries that have never received an allocation of SDRs; they would receive SDRs in amounts equal to between 20 and 24 percent of their IMF quotas.¹⁷

(3) All members would receive a minimum allocation equal to between 6 and 8 percent of their quotas.

(4) Under provisions 2 and 3, the total allocation would be modest, amounting to 12 to 16 billion SDRs.

¹⁶ There are thirty-four member countries, including the former Soviet republics, that have not participated in SDR allocations simply because they joined the IMF after 1981.

¹⁷ It is an open question, however, as to whether an issue of equity arises when new members of a club fail to receive compensation for benefits distributed before they became members.

Point 3, the minimum allocation for all members, was introduced with the clear intention of making the proposal palatable to a larger group of countries. The size of the entire allocation was far smaller than the 36 billion proposed by the managing director.

Developing countries criticized the compromise proposal on the grounds that (1) by its selectivity, the proposal would weaken the traditional mechanism for an SDR allocation; it even failed to call the 6 to 8 percent minimum allocation a “general allocation”; (2) the proposal would involve a delay of up to two years, because it would require an amendment to the Articles of Agreement, which would require in turn the approval of the legislatures of member countries—developing-country representatives also argued that it would be difficult for their legislatures to approve a proposal that flew in the face of the Articles of Agreement and that offered little benefit to their countries; indeed, the allocation of SDRs to developing countries, excluding the former Soviet republics, would be very small, on the order of 3.9 to 5.2 billion SDRs; (3) the proposal would not lead to an “equitable” solution, in that cumulative allocations would not equal the same percentage of quotas for all member countries.

As a counterproposal, the developing countries suggested a two-step scheme that tried to mimic certain features of the U.S.- U.K. proposal but incorporated elements that would meet the main objections of the developing countries. Under their scheme, there would be a *general* SDR allocation equivalent to 10 percent of quotas, or some 14.5 billion SDRs. This would resemble that part of the U.S.-U.K. proposal that called for a 6 to 8 percent minimum overall allocation, but it would also require the recognition of the existence of a global liquidity need and would thus keep the traditional mechanism for SDR allocations alive. In addition, an amendment to the Articles of Agreement would allow a further *selective* allocation of around 16 billion SDRs to make it possible for all countries to reach the same ratio of cumulative allocations to quotas, that is, 35.8 percent. This would level the playing field for the countries that joined the IMF after 1981, when the last SDR allocation took place.

The developing countries argued that their proposal had two advantages. First, the 10 percent general allocation could come into effect immediately because it would not require an amendment. This would provide immediate relief from the reserve stringency faced by many transition economies and developing countries. Second, equity, the declared motive of the exercise, would be better served. Once the amendment was ratified by 85 percent of the voting power, all members

could reach the same ratio of allocations to quotas.

Thus, even before the Madrid meetings, the position of the two groups of countries appeared to be polarized. The larger issues at stake, beyond the numbers, were those of principle and precedent. At one extreme, the Bundesbank strongly opposed any general SDR allocation, arguing that the IMF should not recognize the existence of any long-term global liquidity need. Other G-7 countries, most of which have been unenthusiastic about the SDR mechanism, were reluctant to let Germany stand alone, particularly because Germany had already shouldered a disproportionate share of the burden of providing assistance to Eastern Europe and the former Soviet republics. The United States, which earlier had shown signs of flexibility, decided to support the German position. Only France, which had always favored the SDR scheme, fought against the Germans. In the end, however, France caved in as well.

The developing countries, as well as the managing director, felt that for the first time in years, they had a strong negotiating position. The G-7 countries required the developing countries' votes not only to provide the former Soviet republics with SDRs but also to renew the Systemic Transformation Facility (STF), of which Russia and other economies in transition are the only direct beneficiaries. The support of the developing countries was also required for another policy decision of direct interest to the former Soviet republics, that is, an increase in access limits on resources of the IMF. (Strictly speaking, this decision would only require 50 percent of the votes, but it has been IMF policy to take decisions on access by very large majorities.)

It was against this background that the Interim Committee met in Madrid in September 1994. Informal contacts between the executive directors of the G-7 countries and those of the developing countries pointed toward the emergence of a possible compromise that seemed to include a renewal of the STF; an enlargement of access limits of direct benefit to Russia and other economies in transition, as well as to certain developing countries; and an SDR allocation of an amount to be determined, but probably somewhere between the 16 billion proposed by the United States and United Kingdom and the 30 billion suggested by the developing countries. Some proportion of this amount would be distributed generally and the remainder would be allocated selectively following an amendment to the Articles of Agreement.

During the restricted ministerial lunch, the discussion seemed to confirm that a compromise solution would be reached along these lines. However, at the start of the afternoon meeting, which was

delayed from 3.00 P.M. until after 6.30 P.M., members of the G-7 and Russia surprised the developing countries by indicating that there was no basis for a compromise on an SDR allocation. They proposed that the various elements of the package should be discussed and approved separately.

The developing countries, aware that their strength lay in treating all the issues as a package, indicated that the lunch discussion had led them to believe the various issues would be considered together and that they were not prepared to consider and approve the elements separately. The G-7 and the chairman of the Interim Committee pressed the developing countries to unbundle the package, insisting that the renewal of the STF and the increase in access limits should be approved immediately, for there was no opposition to them, and that the issue of an SDR allocation, on which there were different views, could be postponed. The developing countries spoke one by one, taking the position that the various issues *were* part of a package, highlighting the links, and reminding the G-7 countries that this was their usual negotiating strategy. If the issues could not be treated as part of a package, all of them should be postponed.

After a recess for consultations, the developing countries, wishing to make a positive gesture and avoid a total failure, agreed that the enlargement of access limits should be sent to the executive board with the favorable recommendation of the committee. The other items, however, should be postponed. The chairman would convene the committee when his informal soundings led him to believe that there was a chance of reaching a consensus.

In this episode, for the first time since the oil crises, the developing countries played a major role in decisionmaking by the Interim Committee. Underlying their more assertive attitude were major changes in the relative economic positions of the developing countries in Asia and Latin America. These countries are no longer the recipients of advice on fiscal responsibility or of financing on other than market terms; their economic management is often as good or better than that of the G-7 countries; and they include a number of dynamic export-led economies. They have regained a self-confidence that most of them have not felt since the debt crisis. Consequently, they insisted that the decisions of the IMF should be ruled by the Articles of Agreement and that its basic law should not be changed according to the whims or needs of a small group of industrial countries. In their internal discussions, some spoke in favor of preserving the SDR as an instrument for the future, while others argued that their legislatures would not ap-

prove a change in the Articles of Agreement that did not benefit them unless it was part of a wider package. Some questioned the validity and sincerity of the G-7 argument on the inflationary impact of a 25 billion SDR allocation, most of which would go to the industrial countries, at a time when the United States alone was running a current-account deficit expected to reach \$140 billion. Questions could also be raised about the motives of the reserve-currency countries in opposing the role of the SDR as a reserve asset.

The failure of the Madrid meeting to reach a consensus on decisions of direct interest to the G-7 countries provoked their anger and frustration. In their view, the managing director had taken an excessively independent position, and the developing countries were, in the words of a European minister, ungrateful for past assistance. It would appear that the failure of the Interim Committee to reach a conclusion fully satisfactory to any of the parties at Madrid can, to a large extent, be attributed to two factors: first, a lack of political sensibility on the part of the G-7 ministers, which led them to change their initial position without regard for the views of other member countries; second, the new assertiveness of a number of the developing countries, whose confidence in their growing role in the world economy led them to be less willing than in the past to have their views ignored.

It is difficult to predict the final outcome. The discussion has gone beyond the realm of technical debate and is stuck on issues of principle and precedent. Clearly, the G-7 countries (with the possible exceptions of France and Italy) have no regard for the role of the SDR in the international monetary system. Were it not for the needs of the republics of the former Soviet Union, the G-7 would probably be willing to do away with the SDR once and for all. Intense pressure was put on individual developing countries to renew the STF before dealing with the SDR. The developing countries resisted, but with the deadline for the expiration of STF approaching, they agreed to a limited extension of the STF from December 31, 1994, to April 30, 1995. Although this action may weaken the developing countries' negotiating position somewhat, the G-7 remain under some pressure to compromise on the SDR issue at the next Interim Committee meeting.

3 The Adjustment Process

The intention of the IMF's founders was to create an international monetary system that would enable countries to correct balance-of-payments disequilibria without adopting measures (such as competitive

devaluations, payments restrictions, or trade protectionism) that would adversely affect the international economy. To that end, the Articles of Agreement set as one IMF objective the financial support of member countries to assist them in correcting balance-of-payments disequilibria.

Although there was consensus in principle among the signatory countries that the IMF would not have the right to challenge the policies of a country that needed to draw on IMF resources, access has been subject to the principle of conditionality since the 1950s. This principle was adopted at the insistence of the U.S. authorities in their position as the IMF's main creditor. Debtor countries, particularly the United Kingdom, opposed conditionality, maintaining that the decision to draw on IMF resources was up to the member countries, not the IMF. Later, however, when the European countries became creditors of the IMF, they endorsed the principle of conditionality.

In 1955, it was decided that the degree of conditionality should increase in direct proportion with the size of a country's drawing, and by the end of the 1970s, greater strictness was adopted in its application. It is useful to remember in this connection that the last standby arrangements in support of industrial countries, for Italy and the United Kingdom, were entered into precisely in 1976. From then on, industrial countries have turned to the markets to meet their financing requirements. Because they no longer depend on IMF resources, this group of countries has adopted a more rigorous stance with respect to conditionality. On a number of occasions, the U.S. government and, in recent years, the German government have opposed any weakening of conditionality and have promoted its stricter application with a view to protecting the Fund's resources and accelerating the adjustment process.

The Nature of Adjustment Programs

The designers of the Bretton Woods system intended that the process of adjusting external imbalances should be symmetrical. Countries with balance-of-payments surpluses as well as countries with deficits were expected to adopt measures conducive to the restoration of equilibrium in their external payments; this was both to facilitate adjustment and to prevent the burden of adjustment from falling only on the deficit countries. In practice, however, the burden of both adjustment and IMF conditionality has fallen only on the deficit countries.

When a country runs a large balance-of-payments deficit over a protracted period, it is apt to exhaust its reserves. The availability of external financing allows the country to cope with the problem while

implementing a program to correct the imbalance. It is in these circumstances that models of financial programming and the design of the adjustment programs accompanying IMF standby arrangements come into play. The viability of an adjustment program depends in large measure on the relation between access to resources and the nature of the existing disequilibrium. This relationship determines the severity of the required adjustment. When ample financing facilities are provided, there is the risk that a deficit country will make excessive use of them and fail to take the measures required to reduce its deficit. In contrast, when financing is scarce, the adjustment necessary to eliminate a deficit may be extremely severe, with high costs in terms of national income and employment. These costs in turn reduce the likelihood of bringing the program to a successful conclusion.

The adjustment program should take due account of the origin and characteristics of an imbalance, as well as the time and resources required to correct it. Of course, countries having recourse to the IMF often seek access to the largest possible amounts of financing, whereas creditor countries prefer policies that limit the amounts. This gives rise to a basic tension between debtors and creditors, a tension that to a large extent underlies the Fund's problems.

Under the traditional approach, which served until recent years as the basis for the conditionality associated with Fund-supported stabilization programs, changes in aggregate demand were regarded as the cause of short-term fluctuations in output, prices, and the balance of payments. Accordingly, the corresponding measures focused on the ratio of nominal money to income. The IMF's approach to economic management was based on regulating the rate of growth of aggregate demand, normally through credit and fiscal policy. (Of course, the higher the target for net accumulation of international reserves under the program, the lower the permissible rates of growth of the money supply and income.)

This approach to the correction of external disequilibria is adequate in many cases, but it is not necessarily appropriate for dealing with structural disequilibria. The analytical framework does not evaluate the potential effects of credit policy on the real sector. When structural changes are required for balance-of-payments adjustment by developing countries, a longer time frame may be necessary, partly to allow time for transferring factors of production between activities and regions. For the same reason, a purely deflationary policy has a marked effect on real income and employment in these countries; it does not promote the structural adjustments required to restore adequate

growth rates. Furthermore, the length of an adjustment program, particularly its structural component, may not coincide with that of an IMF program, and it should not be shortened arbitrarily to make it fit. Finally, the high levels of domestic and external debt facing many countries have major fiscal and balance-of-payments implications that have a bearing on the adjustment process, yet this is not always recognized in traditional stabilization programs.¹⁸

Over time, and at the insistence of the developing countries, it became evident that the classical demand-reduction approach should not be the sole or principal remedy for external disequilibria. A framework was required within which the effects of stabilization programs on the use of resources could be evaluated in both the short and medium terms. To cope with these problems, the Extended Fund Facility (EFF) was created for application to (1) an economy suffering from a serious payments imbalance relating to structural maladjustments in production and trade and exhibiting widespread price and cost distortions and (2) an economy characterized by slow growth and by an inherently weak balance-of-payments position preventing pursuit of an active development policy. The EFF will provide medium-term assistance to these countries.

Countries with external disequilibria should pursue prudent demand-management policies and adopt strategies for structural change (the implementation of which normally requires more financing), including programs to improve the economy's efficiency. They should concurrently adopt measures that enable them to increase their foreign-exchange revenues and overcome their balance-of-payments problems through economic growth. In many cases, such strategies require trade liberalization to promote exports, reduction of the parastatal sector to balance government finances, ambitious investment programs to overcome bottlenecks affecting the balance of payments and inflation, and deregulation aimed at achieving a more efficient allocation of resources. The IMF, however, has approved few programs under the EFF.

¹⁸ Adjustment programs also assume that the current exchange rate will remain constant, because the models on which the programs are based exclude devaluation; these models assume that devaluation will be used only in the event of a fundamental disequilibrium. Yet many programs use exchange-rate adjustment as an *ad hoc* measure. If the analytical framework were to take account of the relation between the exchange rate and the monetary and real sectors, it would be possible to determine the optimal pacing and amount of the devaluation. In many cases, the inflationary impact of a devaluation and its potential recessionary effects are completely overlooked.

Program Evaluation

Despite a reorientation of IMF programs during the 1980s, developing countries pointed out that the IMF had been unable to meet fully the requirements of many of its members (G-24, 1985). In addition, IMF surveillance had neither achieved symmetrical adjustment nor persuaded the major industrial countries to align their policies with the requirements of international financial stability and economic growth, and it had been unable to supplement international liquidity with SDR allocations. Thus, despite its efforts, the IMF had not succeeded in fostering an international environment conducive to the success of adjustment processes.

In an econometric analysis of the results of IMF programs during the 1973-88 period, Mohsin Khan (1990), of the IMF staff, concluded that Fund-supported programs are successful in reducing balance-of-payments disequilibria in the program year and in the following years; that the programs tend to reduce the inflation rate, although this result is not statistically significant; and that they reduce the rate of growth in output. In light of these results, we cannot reject the hypothesis that these programs are essentially deflationary.¹⁹ In the majority of cases, however, there has been a clear downward trend in imports during the program period. Furthermore, the rate of investment declined appreciably, not only during the years in which the program was in effect but also in the years immediately following. These outcomes would seem to be inconsistent with the objectives articulated in Article I of the IMF's Articles of Agreement: to facilitate the expansion of trade, economic activity, and development, and to support adjustment without resort to measures destructive of national and international prosperity.

It is also important to note that since the debt crisis of the 1980s, the combination of adjustment and financing in IMF programs has shown a clear tendency to emphasize adjustment, despite the burden that debt service places on heavily indebted countries. Latin American countries, in particular, have had to implement adjustment programs while making very substantial net transfers of resources to their creditors. It should come as no surprise, then, that adjustment programs have run into problems in these countries.

¹⁹ In addition, Edwards (1990) found that most countries applying IMF programs showed some improvement in their external accounts and inflation rates, although such programs are less often successful where growth targets are concerned (see also Buira, 1983, 1987).

In fact, the IMF has tended to formulate adjustment programs on the basis of available resources (actually, in most cases, on a fraction of available resources), rather than on the resources that would be required to achieve the objective of adjustment with economic growth.²⁰ This trend has become increasingly more marked because the sustained reduction in the size of the IMF relative to international trade has meant that quotas are frequently insufficient to provide adequate support for adjustment programs.

Partly because of these financing restrictions, the implementation of a program negotiated with the IMF is no guarantee of successful adjustment. A study of 266 Fund-supported programs during the 1979-89 period demonstrated that just over half of these programs (52 percent) failed in that they did not achieve their objectives and the countries were unable to disburse all resources available to them (Killick and Malik, 1992; Killick, Malik, and Manuel, 1992).

Although, on average, IMF programs financed 10 percent of the countries' imports, successful programs financed 17 percent, whereas unsuccessful programs financed only 6 percent. This suggests that many such program failures can be attributed to insufficient financing.²¹

Some programs have been affected by transient exogenous factors, such as a deterioration in the terms of trade, an increase in interest rates, or a natural disaster. The IMF does not provide countries with adequate financing to cope with these temporary situations; on the contrary, it generally requires additional adjustment measures. If these factors were considered within the structure of an IMF program, their impact would have to be offset by adequate financing.

One of the basic concepts of the Bretton Woods Agreement is the distinction it made between temporary balance-of-payments problems and problems resulting from structural factors. In the former case, it was not considered advisable to restrict domestic demand, because of the deflationary effects such restriction would have on the country in question and on the world economy. This distinction has been blatantly ignored since the early 1980s. At present, a typical IMF program includes measures that require a contraction in domestic demand,

²⁰ Under IMF standby arrangements and the EFF, access to IMF resources was subject to an annual limit equivalent to 68 percent of the member country's quota at the end of 1993 (on October 24, 1994, the limit was raised to 100 percent). In practice, access in most cases has been below that limit, even though the IMF has ample liquidity.

²¹ Countries are often required to apply major structural or adjustment measures before the first disbursement of Fund resources. In many cases, this means that much of the adjustment effort is carried out without financial support.

regardless of the nature of the problem (Killick, 1992). It is time to rehabilitate the distinction between an economy that suffers from excess demand that can be corrected in the short term by reducing that demand and an economy characterized by structural imbalances.

In brief, the problems associated with programs of prolonged recessionary adjustment, in particular with their high political and economic costs, suggest that changes should be made in the way programs are formulated. Structural measures to promote economic growth must be treated as an objective just as important as fighting inflation and restoring external equilibrium. Programs to strengthen the balance of payments should not merely reduce economic activity; they should make adjustment compatible with acceptable rates of growth and employment. In addition, in developing countries, the success of structural adjustment programs generally requires considerable amounts of external financing over payment periods longer than the customary three to five years.

The IMF's Articles of Agreement recognize that the adjustment process should be symmetrically shared by surplus and deficit countries.²² Because political support has been inadequate, however, IMF surveillance has not been sufficient to reduce international disequilibria in the industrial countries. The IMF has, instead, focused its attention on deficit countries seeking recourse to its credit, and it has thus contributed to the asymmetry of the adjustment process. In addition, it has overlooked the possible existence of structural surpluses, although their correction is intimately related to that of the deficits. These biases have limited the efficiency and equity of IMF performance. The objective of adjustment with growth will not be attained without more effective policy coordination among the industrial countries, which means that the IMF must acquire more authority over these countries. This will require changes in IMF governance.

4 Governance of the IMF

Decisionmaking

Although the IMF is an international organization, its members do not have equal voting power. The acceptance of weighted voting is a

²² One way to reduce asymmetry in the adjustment process would be to apply the "scarce-currency" clause provided by Article VII of the Articles of Agreement. Another mechanism would be to "punish" countries having chronic or sizable surpluses by requiring them to provide interest-free resources to the IMF, which may then be lent to deficit countries.

departure from the traditional practice of international organizations.

The vote of an IMF member has two components. Each member has 250 basic votes simply by virtue of its membership; this is a symbolic recognition of the principle of the legal equality of states. Each member also has one additional vote for every 100,000 SDRs of its quota. Because the number of basic votes has not been changed with successive quota increases, the ratio of basic votes to total votes has declined from just over 11 percent of the voting power of the countries participating in the Bretton Woods conference (Articles of Agreement, Schedule A) to less than 3 percent in 1993, despite the entry of 135 new member countries. The developing countries have repeatedly, and fruitlessly, raised the question of the need to increase the number of basic votes in order to maintain better balance in decisionmaking.

Although most IMF decisions are taken by simple majority, the Articles of Agreement stipulate that some decisions require a qualified majority of the votes cast, that is, a particular proportion of those votes. At the Bretton Woods conference, it was proposed that qualified majorities should be required in only two cases (one being quota adjustments), yet the subsequently accepted Articles of Agreement required qualified majorities for decisions in nine areas. With the First Amendment to the Articles of Agreement, the number of these decisions rose to eighteen; with the Second Amendment, the number rose to fifty-three.²³ The obvious explanation for the increase is the desire to protect some particular interest that might be affected by such decisions, for decisions subject to a qualified majority can be taken only with the consent of the members having a high proportion of the total votes. Currently, the United States has 17.8 percent of the total votes, Germany and Japan have 5.6 percent each, and France and the United Kingdom have just under 5 percent each. The G-7 countries have a combined total of 44.9 percent, and the G-10 plus Switzerland have 51.2 percent.

The concentration of voting power in the hands of the major industrial countries ensures that they have a determining influence on IMF policies. Yet some of them have, in addition, sought actual veto power either for themselves or for a few countries with similar interests. The result is that decisions on eighteen subjects require 85 percent of the total vote, and so may be vetoed by one member country alone, and

²³ Forty of these are executive board decisions; thirteen are board of governors decisions.

twenty-one other questions must be decided by a 70 percent majority, and so may be vetoed by the five countries with the most voting power.

Among the issues that the IMF executive board may resolve only by qualified majority are decisions on quota size, rates of charge, exchange-rate arrangements, SDRs, policies on access to IMF resources, payments to the IMF, use of the Fund's gold holdings and reserves, management of IMF investment accounts, publication of reports, remuneration of creditor positions, and temporary suspension of IMF operations. Thus, all decisions related to the size of the IMF and the use of its resources, SDRs, gold, and the international monetary system are subject to the will of one or a few countries.

Special majorities have been used to block decisions supported by an absolute majority of votes on increases in the size of the IMF (that is, quota increases) and on SDR allocations, sales of the IMF's vast gold holdings,²⁴ and policies on access to IMF resources. The special-majority requirement often has the effect of inhibiting even the discussion of important issues that would be difficult to resolve.

The developing countries have argued that because voting itself is weighted—a situation that favors the industrial countries in decision-making—there should be no need for special majorities. However, the countries that for various reasons have favored such majorities have not been prepared to do away with them.

The Determination of Quotas

Because members' quotas are the main factor determining voting rights, the process for setting such quotas should be examined.

It has often been said that the quotas of the United States, the United Kingdom, the Soviet Union, and China were politically determined at the Bretton Woods conference. Raymond Mikesell, asked by the U.S. Treasury to estimate the first quotas, writes:

In mid-April 1943, . . . White called me to his office and asked that I prepare a formula for the . . . quotas that would be based on the members' gold and dollar holdings, national incomes, and foreign trade. He gave no instructions on the weights to be used, but I was to give the United States a quota of approximately \$2.9 billion; the United Kingdom (including its colonies), about half the U.S. quota; the Soviet Union, an amount just

²⁴ At the end of 1993, the Fund's 103.4 million ounces of gold were valued at \$4,972 billion, based on a price of 35 SDRs (\$48.08) per ounce. If these holdings were valued at \$350 per ounce, their value would increase to \$36.2 billion and IMF resources would increase by close to \$31 billion.

under that of the United Kingdom; and China, somewhat less. He also wanted the total of the quotas to be about \$10 billion. White's major concern was that our military allies (President Roosevelt's Big Four) should have the largest quotas, with a ranking on which the president and the secretary of state had agreed. . . . As was typical, White wanted something on his desk in a couple of days—it took me four, including a weekend. A modern computer would have saved several days of work on my state-of-the-art calculator and might have produced a more credible result.

Had there been reasonably good official national-income estimates for the major countries in 1943, it might not have been possible for me to approximate White's conditions. Only the United States and Britain had official figures, although several countries had unofficial estimates. There were published figures on gold and dollar holdings (except for the Soviet Union) and on foreign trade, but no formula could meet White's conditions without giving great weight to national income. My sources for the national incomes of the thirty-four countries I covered were estimates of average consumption found in country studies, estimates of wage rates and family expenditures, and extrapolations from budget and tax data. Countries at a similar stage of development were assumed to have the same per capita income. My national-income estimate for China was \$12 billion, less than a fifth of U.S. national income in 1940, and my estimate for the Soviet Union was \$32 billion. I confess to having exercised a certain amount of freedom in making these estimates in order to achieve the predetermined quotas. I went through dozens of trials, using different weights and combinations of trade data before reaching a formula that satisfied most of White's objectives. I then found that I could get even closer if I increased the quotas by the ratio of average exports . . . to national income. . . . Not all the estimates were for a common date, but I tried to adjust the data to 1940. The final formula for determining quotas was 2 percent of national income, 5 percent of gold and dollar holdings, 10 percent of average imports, 10 percent of the maximum variation in exports, and these three percentages increased by the percentage ratio of average exports to national income. (Mikesell, 1994, pp. 22-23)

Subsequently, at the meeting of the Committee on Quotas, Mikesell was asked to explain the basis for his quota estimates: "I had anticipated this request and gave a rambling twenty-minute seminar on the factors taken into account in calculating the quotas, but I did not reveal the formula. I tried to make the process appear as scientific as possible, but the delegates were intelligent enough to know that the process was more political than scientific" (pp. 35-36). Mikesell goes on to say:

The use of a single Fund quota to serve three purposes was both illogical and unnecessary, and this was frequently pointed out during the conference. There could well have been one quota based on, say, foreign trade and export variability to govern drawing rights, a second quota based on

reserves and balance-of-payments history to govern contributions to the Fund, and a third quota based on economic and political importance to determine voting rights. (Mikesell, 1994, pp. 37-38)

It is remarkable that, with some adjustments in the weighting and definition of the main variables, the IMF continues to use the original formula for determining members' quotas, and it is certainly understandable that the lack of equity and rationality in the quota criteria continue to cause controversy and mistrust among members today, just as it did fifty years ago. The original formula is now combined with four other formulas, which give different weights to the same variables, and an element of discretion is used in selecting the formula to be applied in each case. (At times, the average of the various calculations is used to set a country's quota.) It is therefore not surprising that current quotas are far from representative of the actual sizes of economies or of their importance in the world economy. This can be illustrated by the fact that Brazil, Mexico, and Spain, with GDPs and populations larger than those of Belgium, the Netherlands, and Switzerland, have smaller quotas than the latter countries and fewer voting rights. Their share in decisionmaking is not commensurate with the importance of their economies.

In the Ninth General Review of Quotas, 60 percent of the quota increase was distributed in proportion to members' shares in the total of preexisting quotas, calculated according to the formulas. The other 40 percent was distributed in a discretionary manner "to bring members' quotas more in line with their relative economic positions" (IMF, 1993, p. 26). The changes in the quotas of the main industrial countries were based, not on the formula, but on political criteria. This method equalized Japan's and Germany's quotas (both in second place), although the Japanese economy is twice the size of the German economy. Similarly, the third largest quotas were given to France and the United Kingdom, although the Italian economy is substantially larger than that of the United Kingdom.

The success of the postwar economic system, under which international trade grew by more than production, is widely acknowledged. It is also clear that, with the passage of time and ensuing changes, some aspects of the system have become dysfunctional. The growth of the international economy would be facilitated by reforms in the current international monetary order. Yet these reforms encounter serious political resistance from the existing power structure.

International institutions must reconcile countries' political objectives with the interests of the international community, that is, national

policies must be made compatible with international aspirations. That will not happen as long as political decisions are taken by a very small group of industrial countries, the G-7, meeting outside the IMF. The views and interests of the other IMF members—over 170, mostly developing, countries—are not given appropriate consideration.

The concentration of power with a very few countries also makes it difficult to correct the fundamental asymmetry in the adjustment process between deficit and surplus countries. Although the IMF can bring considerable pressure to bear on the economic policies of the developing countries seeking financial assistance, it cannot easily induce the surplus countries to reduce their external imbalances. Furthermore, the current power structure, which places a single country in a dominant position, impairs the objectivity of IMF decisions and recommendations. Technically questionable programs have sometimes been approved in order to support governments allied with the interests of the dominant country or countries, thereby placing the resources of the international community at risk. These cases have a demoralizing effect on the IMF staff, who are made to recognize that there are “special cases” based on noneconomic considerations and who may, as a result, impose a degree of self-censorship.²⁵ It is difficult, if not impossible, to examine and analyze objectively initiatives or proposals that go against the interests of the major member countries.

Turning to another matter, it would seem that the countries with the largest quotas, the creditor countries of the IMF, have opted to reduce their relative contributions and their exposure to Fund borrowing, thereby reducing the size of the IMF relative to world trade (Table 3).

As the size of the IMF and access to its resources have been reduced, a new doctrine has emerged whereby the IMF is deemed to act mainly as a catalyst for other resources by putting its seal of approval on country programs. The Articles of Agreement make no mention of a “catalytic role” for the IMF nor do they describe it as a credit-rating agency enabling countries to access international credit markets. This was not the role its founders had in mind when they spoke of promoting international monetary cooperation.²⁶

²⁵ David Finch, former director of the Exchange and Trade Relations Department responsible for ensuring the coherence of adjustment programs and equal treatment of member countries, resigned under political pressure to relax IMF conditionality for Egypt and Zaïre (“IMF Silent on Resignation,” *Financial Times*, March 21, 1987).

²⁶ Limits on access are meant partly to avoid overexposure of the IMF to one or a few countries, for reasons of prudence. When there are payments arrears, however, the overdue amounts are distributed equally among users of the Fund’s resources and its

TABLE 3
THE RATIO OF TOTAL IMF QUOTAS TO TOTAL
MERCHANDISE TRADE
(billions of dollars)

	Quota	Trade	Quota/Trade
1950	8.0	116.1	6.9
1955	8.8	174.1	5.0
1959	14.6	209.9	7.0
1965	20.9	355.7	5.9
1970	28.8	600.1	4.8
1976	39.0	1,873.1	2.1
1978	59.6	2,478.8	2.4
1983	89.2	3,464.8	2.6
1990	90.1	6,775.2	1.3
1992	141.4	7,495.1	1.9
1993	144.6	7,537.1	1.9

SOURCES: IMF (1993) and *International Financial Statistics*.

Despite the clear inequities in the quota structure and decision-making process of the IMF, the economic authorities of most member countries maintain cordial relations with the Fund's staff. They do so not only because the IMF is often an important source of financial assistance, but also because they often agree with the staff on a number of issues. Thus, finance ministers and central bankers generally agree with the IMF on the importance of balancing government finances, on low inflation, and, more recently, on opening up economies and downsizing the parastatal sector to increase efficiency and boost growth rates. These shared views usually make it possible to establish good working relations between the governments' economic teams and the IMF with a view to achieving common objectives.

5 Final Considerations

The world has changed considerably in the fifty years since the Bretton Woods conference. Under the international economic order established at that time, the world economy underwent some thirty years of rapid

creditor countries, despite the fact that the latter account for over 75 percent of the quotas. The countries that account for 75 percent of the capital therefore absorb only 50 percent of the losses, whereas countries with balance-of-payments problems—countries that have had to rely on IMF credit—bear the other 50 percent.

economic growth, almost unparalleled in economic history. After that, par values were abandoned, the oil crises occurred, and international capital markets developed rapidly. The growth of those markets, which freed the industrial countries from further need for IMF financing, was to have a considerable impact on the evolution of the international monetary system.

During the past twenty years, the IMF's operations have been conducted exclusively with the developing countries and, recently, with the countries in transition. In the last five years, operations have concentrated on the low-income developing countries and the republics of the former Soviet Union. This situation has widened the divide among IMF members. On the one hand is a small group of creditor industrial countries with a majority vote; on the other is the large number of debtor developing countries with a minority vote.

It is hardly coincidental that the size of the IMF has shrunk relative to world trade over the last twenty years, that countries' access to IMF resources has been reduced compared to IMF quotas, that conditionality has become gradually more restrictive, even for the compensatory financing facility, and that SDR allocations have been suspended since 1981. These are manifestations of the growing gap between debtor and creditor countries and of the corresponding change in the industrial countries' view of the IMF. The industrial countries no longer regard the IMF as being the center of the international monetary system but treat it instead as a specialized agency that assists the developing countries. Keynes would disagree: "This is not a Red Cross philanthropic relief scheme, by which rich countries come to the rescue of the poor," he declared, "it is a piece of highly necessary business mechanism which is at least as useful to the creditor as to the debtor."²⁷ This is no longer the case.

Today, the international monetary system falls short of the goals it set for itself in the management of exchange rates, international liquidity, and the adjustment process. The pressures of short-term political expediency appear to have blurred the Bretton Woods vision of international cooperation as a means to improve the workings of the world economy. The notion that national goals are often best attained through international cooperation tends to be forgotten.

This situation is unsatisfactory. To change it, however, and to reconcile national objectives with the interests of the world economy will require reform of the IMF's quota and decisionmaking structure. The

²⁷ Quoted by Anand G. Chandavarkar (IMF, 1984, p. 1).

Fund's policy decisions should reflect the wider interests of the international community. This requires that each country be given a share in the IMF's financial structure that reflects the importance of its economy. Increased legitimacy of Fund policy decisions would also follow.

With the end of the cold war—around which G-7 policies coalesced—and the trend toward the formation of regional blocs in Europe, North America, and, to a lesser extent, Asia, trade and monetary tensions among IMF members may be expected to increase. It is therefore important that the IMF, the only universal monetary forum, strengthen its role as the center for analysis and decision on international monetary issues.

Appendix: The Demand for International Reserves

The equilibrium-model equation is

$$\text{Ln}R_{n,t} = \beta_0 + \beta_1 \text{Ln} Z_{n,t} + \beta_2 \text{Ln} Y_{n,t} + \beta_3 \text{Ln} m_{n,t} + u_{n,t}, \quad (\text{A1})$$

where R represents international reserves, Z is the measure of variability of international transactions, Y is real output, m is the average propensity to import, u is a disturbance term, n is a country index, and t is a time index. To calculate the measure of variability, eighteen regressions were run for each country, as follows:

$$R_T = \beta_0 + \beta_{t-1}T + u, \quad T = t - 15, \dots, t - 1,$$

where R_T is nominal international reserves in year T for the country under study.

Then the value of the coefficient β_{t-1} is used to calculate

$$V_t = \frac{\sum (R_T - R_{T-1} - \beta_{t-1})^2}{14}, \quad T = t - 14, \dots, t - 1,$$

which is defined as the variance of the change in the level of nominal international reserves (R), adjusted for trend. Taking the square root and dividing it by nominal imports for the corresponding year (IM_t),

$$Z_t = V_t/IM_t,$$

which gives the measure of variability of international transactions.

A period of eighteen years (1975 to 1992) was considered for a sample of twenty industrial and twenty-nine developing countries. Estimates were made for the two subperiods 1975 to 1981 and 1982 to 1992. Table A1 shows the coefficients of the estimates calculated for

TABLE A1
 THE DEMAND FOR INTERNATIONAL RESERVES
 ESTIMATES BASED ON THE EQUILIBRIUM MODEL
 (generalized least squares)

Period	Industrial Countries				Developing Countries				R^2 D-W S.E.
	β_0	β_1	β_2	β_3	β_0	β_1	β_2	β_3	
1975-92	-0.541 (1.98)	0.242 (4.13)	0.884 (25.15)	0.642 (5.34)	-0.344 (1.42)	0.491 (10.31)	1.171 (23.07)	1.082 (11.71)	0.90 2.06 0.500
1975-81	-0.469 (1.07)	0.276 (2.88)	0.953 (19.89)	0.897 (5.32)	-0.369 (1.08)	0.438 (6.39)	1.142 (15.78)	0.996 (6.93)	0.86 1.90 0.565
1982-92	0.323 (1.13)	0.447 (6.46)	0.954 (26.40)	0.957 (7.36)	0.313 (1.03)	0.631 (9.25)	1.181 (21.06)	1.347 (13.22)	0.89 2.01 0.526

ESTIMATES BASED ON THE DISEQUILIBRIUM MODEL (ordinary least squares)			
	α	β	R^2 S.E.
1975-92	0.006 (0.39)	0.295 (6.04)	0.12 0.263
1975-81	0.001 (0.06)	0.487 (5.16)	0.18 0.243
1982-92	0.041 (2.25)	0.38 (5.83)	0.15 0.250

NOTE: *t*-statistics are in parentheses.

each period and the corresponding values of the t -statistics.²⁸

The disequilibrium model requires a second equation:

$$\text{Ln } R_{n,t} - \text{Ln } R_{n,t-1} = \alpha + \beta (\text{Ln } RD_{n,t} - \text{Ln } R_{n,t-1}) + e_{n,t} , \quad (\text{A2})$$

where $RD_{n,t}$ is the equilibrium level of reserves obtained for equation (A1). Thus, equation (A1) defines the long-term demand for international reserves of country n . Equation (A2) describes the process of adjustment. The coefficient β therefore represents the speed of adjustment of reserves to the desired level. The results of the estimates based on the disequilibrium model are also given in Table A1.

Table A2 shows the results of the estimates of the elasticities of the demand for international reserves for the countries issuing reserve currencies and for the rest of the industrial world.

TABLE A2
ELASTICITIES OF THE DEMAND FOR RESERVES OF RESERVE-CURRENCY
ISSUERS AND OTHER INDUSTRIAL COUNTRIES
(*generalized least squares*)

	β_0	Z	Y	m	R^2 D-W S.E.
Reserve-currency issuers ^a	-1.102 (1.41)	0.485 (3.79)	1.084 (5.90)	0.695 (2.73)	0.80 1.82 0.216
Other industrial countries	0.999 (2.54)	0.639 (8.01)	1.007 (23.35)	1.139 (6.57)	0.94 2.03 0.299

NOTE: t -statistics are in parentheses.

^a France, Germany, Japan, the United Kingdom, and the United States.

²⁸ The coefficients shown were obtained with generalized least squares, because with ordinary least squares, the Durbin-Watson value gives an autocorrelation of 1. In general, the coefficients obtained from the regressions are very similar to those obtained by both Frenkel (1983) and Lizondo and Mathieson (1987). It should be noted that ordinary least squares should be used to make comparisons with the estimators given by Lizondo and Mathieson (1987), because this was the method they used in their article; they do not give the Durbin-Watson values for their regressions.

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