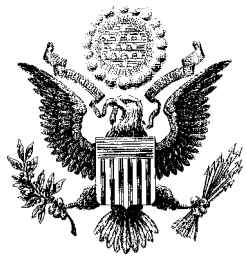
THE SUBSIDY IN IMF LENDING



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Summary

Legislation passed by Congress in 1998 mandated that, in return for an increased U.S. contribution to the International Monetary Fund (IMF), the IMF charge interest rates that reflect an adjustment for risk to countries that borrow from it when they are experiencing monetary crises. The IMF has not charged such interest rates in some cases where circumstances have clearly seemed to require them. The IMF's normal interest rates and even its "risk-adjusted" rates are below the rates at which many of its member countries can borrow from the private sector. In effect, borrowers are being subsidized by taxpayers in the United States and a small number of other countries that provide most of the IMF's usable resources. Increasing IMF interest rates would reduce the cost of U.S. participation in the IMF and promote better economic policies in countries that borrow from the IMF.

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I. INTRODUCTION TO IMF LENDING

The changing role of the IMF, 1947-2002. The international agreements creating the International Monetary Fund (IMF) and its sister organization, the World Bank, were negotiated at a conference of 45 nations at Bretton Woods, New Hampshire in July 1944. The IMF actually began operations in March 1947.

Initially, the IMF supervised the system of exchange rates agreed upon at the Bretton Woods conference, in which most currencies were pegged to the U.S. dollar and, through it, to gold. The IMF lent money to help member countries overcome temporary problems with their balance of payments. For example, if a country imported far more than it exported, paying for the imports would drain gold and U.S. dollar reserves from the country's central bank. Help from the IMF could enable the country to ride out the drain of reserves, if it was temporary, rather than respond by devaluing its currency.

Through the 1960s, most of the IMF's loans were to developed countries, particularly Western European countries that had been affected by the Second World War. However, the Bretton Woods monetary system collapsed from 1971 to 1973, largely because the United States was unwilling to continue practicing the discipline a gold standard required. The dollar and the other major international currencies (the German mark, Japanese yen, British pound, and French franc—all issued by developed countries) switched from pegged to floating exchange rates.[1] In principle, a floating exchange rate requires no foreign reserves to support it, and therefore no borrowing from the IMF or other sources. The IMF has not lent to a major developed country since 1978, nor, apparently, to any developed country since 1992.[2] In practice, the IMF today lends exclusively to developing countries.

This study examines the terms on which the IMF lends, and examines their compliance with Congressional mandates that interest rates on IMF loans carry an adjustment for risk.

IMF quotas. The IMF receives the great bulk of its resources from its members through capital subscriptions called quotas.[3] The quota a country pays depends on its economic position relative to other members. Quotas and other IMF transactions are

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[1] The mark, franc, and during some periods the pound were party to attempts to retain pegged exchange rates among Western European currencies. Their exchange rates fluctuated only within narrow bands against each other, but floated against the major outside currencies. In 1999 the mark and franc became subdivisions of the euro, with fixed exchange rates to each other; they ceased to exist entirely in 2002.

[2] The last time the United States withdrew resources from the IMF was in 1978, when it used $3 billion (2.3 billion Special Drawing Rights) of its "reserve tranche." As is described below, the reserve tranche consists mainly of resources a member has itself contributed to the IMF. The IMF lent 179 million Special Drawing Rights (roughly $240 million) to Israel in 1992. On patterns of IMF lending, see Boughton (2001), p. 18, and the IMF Web site, <http://www.imf.org>.

[3] Less than 5 percent of the total resources come from other sources—Special Drawing Rights (see below) and gold holdings. However, the IMF values its gold holdings at less than one-third of their market value.

denominated in the IMF's own accounting unit, the Special Drawing Right (SDR). The Special Drawing Right is a basket of the four leading international currencies—the dollar, euro, Japanese yen, and British pound. As of mid November 2002, one SDR was equal to about $1.34. Besides being an accounting unit, the SDR has a second, distinct, role as a reserve asset. SDRs issued by the IMF are a potential claim on the freely usable currencies of IMF members.

The United States has always had the largest quota, currently SDR 37.1493 billion (about $50 billion), or 17.47 percent of the total of SDR 212.6661 billion ($285 billion). Both the loans a member can obtain from the IMF and its voting power are based on its quota. (IMF guidelines are supposed to limit the kinds of loans this study discusses to no more than 100 percent of a member's quota annually and 300 percent cumulatively, but, as will be discussed later, the limits have often been breached.) The United States currently has 17.11 percent of total votes at the IMF. The U.S. share of votes is slightly smaller than its share of quotas because of minor adjustment factors that give countries with small quotas a larger vote than they would otherwise have. Some important IMF decisions require the approval of countries having at least 85 percent of quotas, so the United States in effect has veto power over them—the only country that has such power by itself. In general, though, approval for loans requires only a majority of votes.

When countries join the IMF, or when the IMF augments its resources through an increase in quotas, members initially pay up to 25 percent of their quota subscriptions in Special Drawing Rights or in the currencies comprising the SDR. This is usually reflected in what is called a member's "reserve tranche."[4] The remaining 75 percent can be paid in the member's own currency, usually in the form of a noninterest-bearing promissory note or IOU to the IMF by the member's central bank (or, for the United States, the Treasury Department's Exchange Stabilization Fund). Quota subscriptions in many currencies are unusable because the currencies are weak or because are they subject to exchange controls (restrictions on their use), and are not internationally accepted. Moreover, when quotas have been increased, some countries have put in the first 25 percent of their enlarged subscriptions only to withdraw them quickly afterwards, meaning the IMF cannot use them.[5] The IMF's financial statements indicate that these factors reduce *usable* quota subscriptions by about one-third, thereby increasing the IMF's reliance on subscriptions by the United States and other remaining countries. The United States in 2002 provided approximately 24 percent of the IMF's usable quota resources.[6] Previous studies by the Joint Economic Committee have noted the large extent to which the United States provides quotas and other funds available to the IMF.[7]

[4] "Tranche" is a word of French origin meaning "slice." As readers will have noticed by now, the IMF has a peculiar terminology that can impede understanding of its operations. This study tries to avoid technical details that have little bearing on the main points. The technical details can be found in publications such as IMF (2001b).

[5] U.S. General Accounting Office (1999b), p. 35.

[6] See IMF (2002a), pp. 155, 169, and, for updated information, "IMF Financial Transactions Plan—Quarterly Report," at <http://www.imf.org/external/fin.htm>.

[7] Frenze and Keleher (1998, 1999).

In addition to the quota system, the IMF can borrow resources directly from member countries. Its most important borrowing channel is the New Arrangements to Borrow, under which 25 countries have agreed to lend a total of up to SDR 34 billion ($46 billion); the United States contributes almost 20 percent of the total outstanding.[8] Finally, the IMF can borrow from the private sector, though it has been reluctant to do so.

IMF lending charges. In the terminology of the IMF, loans are called "purchases" of reserve assets, and repayments are called "repurchases." The base rate for IMF lending-rate calculations is the SDR rate. The SDR rate, which is calculated and adjusted weekly, is a weighted average of the yields of three-month securities in the currencies that comprise the SDR: government securities from the United States, Japan, and Britain, and three-month loans between banks in the euro zone (since the zone has no zone-wide government securities). In effect, the SDR rate reflects the world's best credit risks and may be regarded as a practically risk-free rate of interest.

The United States and other countries that are lenders to the IMF are paid an "adjusted rate of remuneration" that equals the SDR rate minus adjustments for "burden sharing" (lost income from overdue loans).[9] Countries that are borrowers from the IMF pay an "adjusted rate of charge" that covers the administrative expenses of operating the IMF and a small financial cushion that includes "burden sharing."[10] As of November 15, 2002, the SDR rate for the quarter so far was 1.98 percent, the adjusted rate of remuneration was 1.88 percent, and the adjusted rate of charge was 2.62 percent.[11]

The interest rate the U.S. government pays on three-month U.S. Treasury bills is currently below the adjusted rate of remuneration it receives from the IMF. At first glance, it may appear that the IMF is a profitable investment for the U.S. government. However, given that the U.S. quota is in effect a long-term investment and that long-term interest rates are typically higher than short-term rates, the rate of remuneration underpays the United States. The yield on ten-year U.S. Treasury bonds has hovered around 4 percent recently.

Types of IMF loans. Table 1, on the next page, summarizes the different types of IMF loans. For the purposes of this study, which focuses on loans to countries experiencing monetary crises, the most important types of loans are Stand-By Arrangements (SBAs), the Extended Fund Facility (EFF), and the Supplemental Reserve Facility (SRF). The other types of loans are either not intended for or have not been used by countries experiencing crises. The IMF disburses loans in tranches (installments).

[8] IMF (2001f).

[9] A portion of the U.S. quota at the IMF, corresponding to gold deposited with the IMF, earns no interest whatsoever; see U.S. General Accounting Office (1999b), p. 56. The policy of the IMF has been to avoid participation in the gold market, hence it does not participate in the gold lending market, where lending rates are currently about 1.5 percent a year. Rates are published daily in the *Financial Times* newspaper.

[10] IMF (2001d). Borrowers also pay a one-time service charge of 0.5 percentage points for all loans; for Stand-By Arrangements, the Extended Fund Facility, and the Supplemental Reserve Facility there is an annual commitment fee of 0.25 to 0.35 percentage points that is refunded to the extent a country actually borrows.

[11] IMF (2002b).

Table 1. IMF lending facilities

*Facility (**bold** indicates those of most interest here)*	*Interest rate*	*Repayment (years)*
"Reserve tranche": Technically not a lending facility, but a country's own funds.	no charge	indefinite
***Stand-By Arrangement (SBA):* Most common type of loan, for short-term balance of payments problems.**	**adjusted rate of charge + 1-2%***	**2¼-5**
***Extended Fund Facility (EFF):* For longer-term balance of payments problems.**	**adjusted rate of charge + 1-2%***	**4½-10**
***Supplemental Reserve Facility (SRF):* For financing emerging markets suffering large short-term loss of market confidence.**	**adjusted rate of charge + 3-5%**	**1-3½**
Contingent Credit Lines (CCL): Precautionary lending; established 1998, but not used so far.	adjusted rate of charge + 1.5-3%	1-3½
Compensatory Financing Facility (CFF): For sudden shortfalls in exports or sharp rises in food import prices; rarely used.	adjusted rate of charge	3¼-5
Emergency Assistance: For countries experiencing natural disaster or war; rarely used.	adjusted rate of charge	3¼-5
Poverty Reduction Growth and Facility (PRGF): Explicitly subsidized loans to the poorest countries.	0.5%	5½-10

Notes: The "adjusted rate of charge" for the fourth quarter of 2002 up to November 15 was 2.62%.
*1% for borrowing over 200% of quota, 2% for borrowing over 300%.
Sources: IMF (2001b), especially p. 33.

Countries that borrow from the IMF agree to fulfill certain conditions (conditionality), negotiated case by case. The IMF can refuse to disburse later tranches to countries that fail to meet the conditions they have agreed upon.

As a practical matter, a country can withdraw its reserve tranche without conditions. Beyond that, Stand-By Arrangements are designed to deal with short-term problems in the balance of payments (flows of funds into and out of a country linked to its international trade and investment). Stand-By Arrangements are disbursed during a period that is typically 12 to 18 months, but may be as long as three years. Repayment is normally expected 2¼ to 4 years from the date of drawing, though a country may request to extend the period of repayment up to a year more. As was mentioned, the borrower pays the "adjusted rate of charge." The loan is conditional upon fiscal and monetary policy changes in the borrowing country. Disbursements from the Extended Fund Facility are three years long. Repayment is normally expected 4½ to 7 years from the date of drawing, though a country may request to extend the period of repayment up to three more years.

Table 2. IMF loan approvals since 1995 exceeding the cumulative ceiling of 300 percent of quota

Country	*Date IMF approved loan*	*Quota (million SDRs)*	*Amount approved (million SDRs)*	*Loan as percent of quota*
Argentina	3/10/2000-9/7/2001	2,117.1	16,936.8	800
Brazil—1	12/2/1998	2,170.8	13,024.8	600
Brazil—2	9/14/2001	3,036.1	12,144.4	400
Brazil—3	9/6/2002	3,036.1	22,800	751
Indonesia—1	11/5/1997	1,497.6	8,338.24	557
Indonesia—2	8/25/1998	1,497.6	5,383.1	359
Korea, South	12/4/1997	799.6	15,500	1938
Mexico	2/1/1995	1,753.3	12,070.2	688
Russia	3/26/1996	4,313.1	13,206.57	306
Thailand	8/20/1997	573.9	2,900	505
Turkey	12/22/1999	964	15,038.4	1560
Uruguay	3/25/2002-8/8/2002	306.5	2,128.3	712

Note: See Table 3 for more details. Argentina and Uruguay each received multiple loans over a short period; the table lists the maximum cumulative amount of the loans.
Source: Calculations based on information from IMF Web site.

Under Stand-By Arrangements and the Extended Fund Facility, a country can borrow up to 100 percent of its quota a year and 300 percent cumulatively, although the IMF has often granted larger loans. Table 2 lists these large loans. The IMF imposes a surcharge of 100 basis points (1 percentage point) above the total rate of charge for credit exceeding 200 percent of a member's quota, and 200 basis points for credit above 300 percent of quota.

The Supplemental Reserve Facility exists to address large balance-of-payments problems arising from abrupt reversals of confidence. The Supplemental Reserve Facility allows for larger loans than do Stand-By Arrangements and the Extended Fund Facility, but credits are subject to a surcharge of 300 basis points during the first year following the date of drawing. The surcharge rises by 50 basis points every six months until it reaches 500 basis points. Repayment is normally expected 1 to 1½ years after the date of drawing, though a country may request to extend repayment up to 12 more months.

II. WHAT PRINCIPLES SHOULD GOVERN IMF LENDING?

The IMF as a quasi lender of last resort. Since late 1994, one or more major developing countries has experienced a currency crisis almost every year, and the IMF has been involved in lending to those countries, notably Argentina, Brazil, Indonesia,

Mexico, South Korea, Russia, Thailand, and Turkey. Controversy about whether such large loans have been necessary or helpful has led to the deepest re-examination of the principles governing IMF lending since the organization was founded. Most of the re-examination focuses on the idea of an international lender of last resort, and in what sense the IMF could be one. Stanley Fischer, then the first deputy managing director of the IMF, proposed in 1999 that the IMF become an international lender of last resort.[12] He had in mind that the IMF play this role for developing countries, since developed countries do not borrow from it.

A lender of last resort in the *strict* sense is a monetary authority that has the power to create bank reserves in sufficient quantity to stop a banking panic. A banking panic is a situation where people want to withdraw reserves from banks on a massive scale, either to redeposit them at banks they think are stronger or to hold them outside the banking system. A lender of last resort need not be able to create reserves without limit; it only need be able to create them in substantial amounts. The Bank of England, which in the 1800s was the focal point for economists' thinking about how a lender of resort should act, was on the gold standard continuously from 1821 until the First World War broke out in 1914. The Bank of England's obligation to convert its notes and deposits into gold at a specified rate imposed an upper limit on its ability to print British pounds.

A lender of last resort in the *loose* sense, or, as it will be called here, a quasi lender of last resort, is an organization that has sufficient funds to stop a banking panic, even if it lacks the power to create bank reserves. A quasi lender of last resort need not be a central bank, or even a government body. The financier J. Pierpont Morgan was able to act as a lender of last resort during the U.S. panic of 1907, thanks to the credit he could offer through the prominent investment bank he owned and through other firms with which he had connections.

The IMF cannot be a lender of last resort in the strict sense because it cannot create reserves in substantial amounts. Subject to approval by at least 85 percent of its members, the IMF does have the power to create credits to Special Drawing Rights as international reserves. In 1997, the IMF's Board of Governors voted to double the allocation of SDRs to approximately SDR 43 billion. However, the United States, whose voting power is 17.11 percent, has not given its support, leaving the proposal dead for the time being. The new allocation of SDRs would in effect give developing countries more freedom to borrow without U.S. oversight from a pool of funds to which the United States is the largest contributor, and to which they contribute few usable resources.

The IMF is more of a credit union than a world central bank. As a kind of credit union, though, the IMF can still be a quasi lender of last resort, and in fact the International Financial Institution Advisory Commission recommended that the IMF have such a role.[13] (The commission was a panel of experts appointed by Congress to examine the U.S. role in the IMF and other international financial institutions.)

[12] Fischer (1999).
[13] International Financial Institution Advisory Commission (2000); see also Keleher (1999).

Principles for a quasi lender of last resort. The principles for operating a lender of last resort were first systematically expounded by the English banker and economist Henry Thornton in 1802, but Thornton's pioneering work was later forgotten for a century. The English journalist and social philosopher Walter Bagehot independently rediscovered the principles, extended them, and made them a permanent part of economic thinking in a book of 1873.[14]

Thornton and Bagehot's recommendations can be summarized by saying that to quell a panic, a lender of last resort should lend

(1) liberally,
(2) at a penalty rate of interest,
(3) on good collateral,
(4) to the market, and
(5) for a short term.

The purpose of these recommendations is to ensure that the panic is quelled, but that the central bank lends on conditions that discourage borrowing except by fundamentally solvent parties that are willing to pay a premium.

Let us consider how the recommendations for a lender of last resort in the strict sense translate for the IMF as a quasi lender of last resort.

(1) A lender of last resort in the strict sense issues its own currency. The IMF does not do so, except to a quite limited extent (the SDR credits discussed above). Therefore the resources of the IMF, though substantial, are in all likelihood insufficient for handling a crisis in a larger developed country, which is why the International Financial Institution Advisory Commission recommended that the IMF not lend to such countries.[15] The commission's recommendation would merely codify existing practice. For the countries that remain, the IMF's resources are sufficiently large that its loans can be liberal relative to their size.

(2) Pressure from the United States since 1998 has led the IMF to increase modestly the interest rates it charges to some borrowers. As we will see, though, in many cases these rates remain well below the rates that governments would pay to borrow from the private sector.

(3) A national lender of last resort lends to banks or other financial institutions, which can offer collateral such as bonds or loans to prime corporations. The IMF, in contrast, lends to governments, and those that wish to borrow from it often have no collateral to offer as security for their loans that is readily tradable in international financial markets. To get around this problem, countries that borrow from the IMF make it first in line for any repayment of debt, ahead of banks, governments, and individual

[14] Thornton (1978 [1802]) and Bagehot (1873); see also Humphrey and Keleher (1984).
[15] For all the commission's recommendations discussed in this section, see International Financial Institution Advisory Commission (2000), chapter 2.

investors that have previously lent to them. For its part, the IMF requires countries to follow policies that in its opinion will foster economic growth. Also, it usually disburses loans in pieces ("tranches") rather than in lump sums, so that it can cut off further lending to countries that fail to meet the conditions it has set. The International Financial Institution Advisory Commission report recommended that rather than the IMF imposing conditions on countries it lends to, countries would qualify automatically to receive a certain amount of money without conditions if they met certain standards of good financial management. Under the commission's proposal, the IMF would lend only to those countries. The IMF's Contingent Credit Lines are a step in the direction the report envisions, but so far few countries have asked to qualify for them and no country has yet used them.

(4) The IMF lends to governments or their central banks rather than directly to consumer-level financial institutions such as commercial banks and stockbrokers. Governments that use the funds to relieve distress in their financial systems may re-lend the funds they receive to the market, or they may bail out particular financial institutions, contrary to the classical advice on the lender of last resort. Because money is fungible, it would be hard for the IMF to prevent bailouts of particular institutions entirely.

(5) To focus the IMF on short-term lending, the International Financial Institution Advisory Commission recommended that IMF loans be for a maximum of 120 days, with a possible one-time extension of no more than a further 120 days.

The IMF is currently an awkward combination of aid agency and a quasi lender of last resort. If the IMF is to have a well-defined role in the international monetary system, it is likely to be by avoiding overlap with the World Bank and regional development banks, which already make medium- and long-term loans at subsidized rates of interest.

III. U.S. LAW AND IMF INTEREST RATES

In 1998, Congress debated the IMF's recommendation to increase the U.S. quota from almost SDR 27 billion to SDR 37 billion as part of an overall increase in quotas from SDR 146 billion to SDR 212 billion. Under Chairman Jim Saxton (R-New Jersey), the Joint Economic Committee examined the IMF's procedures in extensive hearings and studies. Chairman Saxton also introduced the *IMF Transparency and Efficiency Act of 1998,*[16] which proposed among other things that "The annual rate at which the International Monetary Fund charges interest on loans made after the date of the enactment of this section shall be comparable to the average annual rate of interest in financial markets for loans of comparable maturity, adjusted for risk." A version of this concept was incorporated into the *Foreign Operations, Export Financing, and Related Programs Appropriations Act, 1999.*[17] As a condition for receiving more U.S. funds, the act required the Administration to notify Congress that the major shareholders of the IMF would act to implement certain policies, including the following:

[16] 105th Congress, H.R. 3331.

[17] Title VI, Section 601. The Act, which is part of Public Law 105-277, was actually passed in October 1998; it has "1999" in the title because October 1998 was the first month of the 1999 federal budget year.

(4) Policies providing that, in circumstances where a country is experiencing balance of payments difficulties due to a large short-term financing need resulting from a sudden and disruptive loss of market confidence and in order to provide an incentive for early repayment and encourage private market financing, loans made from the Fund's general resources after the date of the enactment of this section are—

> (A) made available at an interest rate that reflects an adjustment for risk that is not less than 300 basis points in excess of the average of the market-based short-term cost of financing of its largest members; and
>
> (B) repaid within 1 to 2-1/2 years from each disbursement.

The IMF had already taken a small step in the direction desired by Congress in December 1997, when it established the Supplemental Reserve Fund for use in "extraordinary" circumstances. The intent of Congress was to encourage a broader application of the principles that should apply to an international quasi lender of last resort in such circumstances.[18] Congress did not intend for the risk adjustment factor of 300 basis points (3 percentage points) to be a *uniform* interest-rate floor; it was simply a proposal for a lower limit to the floor.

Executive directors representing seven of the IMF members with the largest quotas—the United States, Canada, France, Germany, Italy, Japan, and the United Kingdom—sent a memorandum to the IMF's managing director on October 30, 1998 proposing the 300 basis point risk adjustment and certain other reforms to promote greater transparency.[19] The IMF subsequently adopted the proposed reforms.

IV. IS IMF LENDING SUBSIDIZED?

The generally accepted principles for operating a financial institution that is not an aid institution is to avoid lending at subsidized (below-market) rates of interest. How do the interest rates the IMF charges compare to market rates?

Two definitions of subsidy: operating loss versus opportunity cost. When Congress in 1998 debated an increase in the U.S. quota at the IMF, one issue that arose was whether the loans the IMF makes are subsidized. Throughout the history of the IMF, the United States has always been a lender; it has never withdrawn funds from the IMF other than part of its reserve tranche. So, from the U.S. perspective the issue amounts to asking whether U.S. participation in the IMF is costly for American taxpayers. Those who argued in 1998 that IMF lending was subsidized, and therefore did impose a cost on American taxpayers, could point to a number of pieces of supporting evidence. One was that borrower countries often paid considerably higher rates of interest when they borrow from the private sector through international financial markets than when they borrow from the IMF. Another was that the Treasury Department had to ask the Congress to allocate funds for an increase in the U.S. contribution to the IMF.

[18] See U.S. House of Representatives (1998b), p. 1179.
[19] IMF (1998).

Robert Rubin, who at the time was Secretary of the Treasury, claimed that "over the past 50 years, our contribution to the IMF has not cost the taxpayer one dime. There are no budget outlays. Our contribution does not increase the deficit or divert resources from other spending priorities." He also said, "So, while it is true we have given dollars to the IMF, we have gotten something back of equal value, which, if we wish, we can liquidate at any time. So that transaction has not cost us a dime. The IMF can then use those funds as they see fit, and we can get our money back any time we wish."[20]

Claims that the U.S. contribution to the IMF costs American taxpayers nothing fail to distinguish between two types of cost. As is discussed in more detail below, the IMF is first in line for any repayment of debt. Borrowers have rarely defaulted (also known as going into arrears or having overdue loans), but IMF lending is not totally free of risk: at present, Afghanistan, the Democratic Republic of the Congo (formerly Zaïre), Iraq, Liberia, Somalia, Sudan, and Zimbabwe are in default. Defaults make the IMF reduce the "adjusted rate of remuneration" it pays to the United States and other lender countries. Argentina has threatened to default on loans to the IMF, as it has defaulted to the World Bank on November 14, 2002.[21] Argentina is the IMF's third-largest borrower, after Brazil and Turkey: as of November 15, 2002, it had drawn SDR 10.581 billion ($14 billion) in loans, or almost 25 percent of the total of SDR 43.117 billion drawn by all members.[22] A default by Argentina would show clearly that the IMF's status does not exclude it from the kinds of risks the private sector faces when lending to governments.

Because defaults have been rare so far, the IMF has not imposed costs in the sense of suffering a nominal operating loss that would reduce the value of the contributions of the United States and other members that are net lenders. However, the more relevant type of cost is what economists call "opportunity cost." Opportunity cost means the opportunities given up by taking one course of action rather than others. Suppose the IMF pays an interest rate of 2 percent a year to the United States for U.S. funds the IMF lends to other countries, but the United States could earn 6 percent a year by lending the funds directly to the countries in question (say, by buying dollar-denominated bonds they issue). The opportunity cost of the U.S. contribution to the IMF is the difference, which amounts to 4 percent a year of the funds lent.

Opportunity cost is the more relevant type of cost. Opportunity cost reflects that the U.S. government could put the funds in its IMF quota to other uses. Those who argue that IMF lending imposes costs on American taxpayers are correct to point out that if participation in the IMF cost nothing, Congress would not need to increase the U.S. quota periodically. The IMF could instead borrow from international financial markets and lend the funds at a suitable mark-up, as banks do.[23] The IMF both receives and lends U.S. taxpayer funds more cheaply than it would funds borrowed from international markets. As noted earlier, the adjusted rate of remuneration the IMF pays to the United States and

[20] U.S. House of Representatives (1998a), p. 23; see also p. 106.
[21] Esterl (2002).
[22] IMF (2002b).
[23] This in fact has been proposed by Saxton (1997) and Lerrick (1999).

other lender countries is based on three-month securities. Since most IMF loans are for periods of a few years rather than a few months, though, a way to better reflect the opportunity cost of the funds involved would be to link the rate to, say, two-year securities, which are actively issued and traded by the countries whose currencies comprise the SDR. In effect, the United States and other lender countries let the IMF use their funds for the medium term but only receive a short-term rate of interest. One study estimated that the cost to the United States of providing resources to the IMF for the period 1991 to 1998 was 2.13 percentage points.[24] This was just the opportunity cost on the borrowing side, without considering the opportunity cost on the lending side from charging interest rates lower than borrowers pay to private-sector lenders.

Does IMF conditionality justify lower interest rates? It has been suggested that the conditions the IMF imposes on loans, which are more detailed than the conditions private lenders impose on governments, justify lower rates on IMF loans than on loans by private lenders. Private-sector lenders typically either focus on the borrower's prospects for repayment and either make a loan without detailed conditions or make no loan at all. To repeat, the IMF imposes conditions on its loans (conditionality). Often the changes in policies that it requires governments to make are quite detailed and unpopular in the countries concerned. Typically, the IMF will require that borrowing governments reduce their budget deficits and rate of money growth (inflation); eliminate monopolies, price controls, interest-rate ceilings, and subsidies; and in some cases, devalue their currencies.

Over the years, IMF conditionality has been subject to criticisms from a range of viewpoints.[25] What interests us here, though, is not the content of conditionality or whether it imposes a cost to borrowers, but whether it yields any direct pecuniary benefit to the United States and other countries that are net lenders to the IMF. Consider a bank lending money to a customer. From the bank's standpoint, the important question about imposing conditions on loans is whether they improve its prospects of repayment. Banks require mortgage loans to be collateralized by houses, so if the borrower defaults they can take possession of the houses to recover their loans. The conditionality banks impose improves their prospects of repayment and enables them to make a profit charging lower interest rates than they otherwise could.

Unlike a bank, the IMF does not require a borrower to pledge property or other collateral for loans. Under the terms of IMF agreements, the IMF has priority over private-sector and government creditors when it lends to a country, meaning that the IMF is first in line for repayment. IMF conditionality therefore does not significantly improve the IMF's prospects for repayment. Moreover, in many cases, countries fail to meet the conditions the IMF sets for them.

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[24] Lerrick (1999), p. 13. The U.S. Treasury (various dates) issues a quarterly report calculating the financial costs of U.S. participation in the IMF, but the report does not take into account that the United States receives a short-term interest rate for lending medium- to long-term.

[25] For example, Joseph Stiglitz (2000), former chairman of the President Clinton's Council of Economic Advisers, and International Financial Institution Advisory Commission (2000), chapter 2.

Table 3. Estimated subsidy in IMF loans, 1995-2001 (from J. P. Morgan data)

Country	*Date IMF approved loan*	*Loan type*	*Amount approved (million SDRs)*	*Amount drawn (million SDRs)*	*Avg. spread of govt. securities over U.S. Treasury securities (% pts.)*	
					1 mo. before	*3 mo. before*
Argentina	4/12/1996	SBA	720	613	6.42	5.88
	2/4/1998	EFF	2,080	0	3.71	3.82
	3/10/2000	SBA	5,398.61	(see below)	4.37	4.48
	1/12/2001	SBA	5,210.39	(see below)	6.80	7.16
	9/7/2001	SBA	1,256.31	9,756.31*	13.72	12.27
	1/12/2001	SRF	2,100	(see below)	6.80**	7.16**
	9/7/2001	SRF	3,774.95	5,874.95*	13.72**	12.27**
Brazil	12/2/1998	SBA	13,024.8	9,470.75	8.60	10.11
	12/2/1998	SRF	9,117.36	6,512.4	8.60**	10.11**
	9/14/2001	SBA	12,144.4	3,675.583	8.56	8.31
	9/14/2001	SRF	9,950.874	3,316.958	8.56**	8.31**
	9/6/2002	SBA	15,200	(see below)	19.57	17.44
	9/6/2002	SRF	7,600	13,105*	19.57**	17.44**
Bulgaria	7/19/1996	SBA	400	80	11.18	11.45
	4/11/1997	SBA	371.9	371.9	8.03	8.59
	9/25/1998	EFF	627.62	627.62	10.69	7.45
Colombia	12/20/1999	EFF	1,957	0	5.11	5.54
Croatia	3/12/1997	EFF	353.16	28.78	1.60	1.57
	3/19/2001	SBA	200	0	2.36	2.75
Ecuador	4/19/2000	SBA	226.73	151.146	18.10	19.35
Mexico	2/1/1995	SBA	12,070.2	8,758.02	4.95	NA
	7/7/1999	SBA	3,103	1,939.5	3.45	3.38
Nigeria	8/04/2000	SBA	788.94	0	13.20	13.15
Panama	12/10/1997	EFF	120	40	3.60	3.08
	6/30/2000	SBA	64	0	4.40	4.41
Peru	6/24/1999	EFF	383	0	6.20	5.61
	3/12/2001	SBA	128	0	6.30	6.61
Philippines	4/1/1998	SBA	1,020.79	783.23	2.76	2.94
Russia	7/20/1998	SRF	4,313.1	675.02	10.08**	8.14**
	7/28/1999	SBA	13,206.57	471.429	29.97	34.44
Thailand	8/20/1997	SBA	2,900	2,500	1.00	0.97***
Turkey	12/22/1999	SBA	15,038.4	9,336.04	4.80	5.38
	12/21/2000	SRF	5,784	5,205.6	7.99**	6.75**
Uruguay	3/25/2002	SBA	594.1	(see below)	4.65	3.91
	6/25/2002	SBA	1031.3	(see below)	8.15	7.04
	8/8/2002	SBA	376	983*	13.50	10.12
	6/25/2002	SRF	128.70	128.70	8.15**	7.04**
Venezuela	7/12/1996	SBA	975.65	350	6.85	7.84

Notes: *Total of SBAs or SRFs listed above. ** Indicates IMF charged interest of 3-5 percentage points above the rate for other loans, correspondingly reducing the element of subsidy. See text for details. ***Two months before; data for full three months not available. EFF= Extended Fund Facility; NA = not available; SBA = Stand-By Arrangement; SRF = Supplemental Reserve Facility. Data are averages of daily rates one or three months up to the day before the IMF approved a loan. Other countries, for which no interest-rate data are available, are listed in the Appendix. As the text explains, estimates of subsidies are rough estimates.

Sources: IMF Web site, *International Financial Statistics,* and other IMF data; J. P. Morgan Emerging Markets Bond Index Global. We thank these institutions for providing data.

Why generally subsidized lending is undesirable. The conclusion, then, is that to the extent the IMF lends at below-market rates of interest, IMF lending is subsidized, and from a lender's perspective, conditionality does not reduce the element of subsidy.

Giving a general subsidy to borrowers is undesirable because it sends them the wrong signal. Instead of making borrowers pay penalty rates of interest when they make mistakes, the IMF has often allowed borrowers to pay lower interest rates during crises than they pay to borrow from the private sector in normal, noncrisis periods. Local taxpayers rather than taxpayers in countries that are net lenders to the IMF pay most of the cost of a crisis, so the possibility of obtaining loans from the IMF at subsidized rates of interest is not a positive inducement for a crisis. However, other things being equal, subsidized interest rates reduce the incentive to take politically painful measures that may prevent a crisis; subsidized rates also make countries more inclined to turn to the IMF rather than the private sector for financing.[26] In this sense it is correct to say that the IMF's subsidized loans create "moral hazard" (reduced vigilance against imprudent behavior because one does not pay its full costs).[27]

V. ESTIMATING THE SUBSIDY

Table 3 and the Appendix list all IMF loans from 1995 to 2001, except explicitly subsidized loans to the poorest countries through the Poverty Reduction and Growth Facility and loans to former communist countries through the now-defunct Structural Transformation Facility.[28] This period includes all IMF loans to countries affected by the Mexican "tequila" crisis of 1994-95, the East Asian crisis of 1997-98, the Russian crisis of 1998, the Brazilian crisis of 1999, the Turkish crisis of 2000-01, and the Argentine crisis of 2001.

Risk spreads as estimators of the subsidy. There is no exact measurement of the subsidy element in IMF lending. How big the subsidy is depends on such factors as for what period loans are made, how much other borrowers would have charged, and so on. However, it is possible to make a rough and ready but consistent estimate of the subsidy. To do so, Table 3 uses an indicator that is widely watched in international financial markets: the spread of a country's dollar-denominated government bonds over the comparable rate for U.S. Treasury securities, as calculated by the J. P. Morgan Emerging

[26] Jeanne and Zettelmeyer (2001) and others who oppose charging higher interest rates on IMF loans seem to neglect that changes in incentives should change behavior.

[27] Keleher and Frenze (1998). IMF conditionality, while sometimes effective, creates its own problems and does not fully alleviate the moral hazard problem. It imposes a kind of nonprice wedge ("excess burden") that benefits neither the borrower nor the lender. For a response by IMF staff on the question of moral hazard, see Lane and Phillips (2002).

[28] The International Financial Institution Advisory Commission (2000, chapter 2) has recommended that to clarify the focus of the IMF, the IMF should no longer make explicitly subsidized loans. Under its proposal, such loans would be shifted to the World Bank; moreover, to improve the financial transparency of the World Bank, at least half of World Bank loans would be replaced by outright grants. See also Joint Economic Committee (2001), particularly the testimony of Charles Calomiris, on the subsidy in IMF loans.

Markets Bond Index Global (EMBI Global or EMBIG) government bond index.[29] The interest rate the U.S. Treasury pays is perceived as a riskless rate for borrowing, because of the Treasury's history of always repaying loans on time and the ability of the Federal Reserve to print dollars to repay the Treasury's loans, if necessary. As we have seen, the IMF's "adjusted rate of charge" for lending SDRs is also a riskless rate. It is based on the three-month interest rates the U.S. Treasury pays to borrow in dollars, the comparable rates the British and Japanese governments pay to borrow in their own currencies, and the rate at which top-name banks borrow from each other in countries that use the euro (since the euro zone has no federal government securities like U.S. Treasury securities in the United States). The adjusted rate of charge is the weighted average of these rates plus a small charge to cover the IMF's costs.

Many countries cannot borrow large sums in their own currencies from financial markets, either because lenders do not regard their currencies as trustworthy or because the size of their borrowing is so large relative to the domestic financial market that it would drive interest rates quite high. Such countries borrow in the major international currencies, particularly U.S. dollars. Doing so enables them to tap vast worldwide markets. The spread they pay over the rates the U.S. Treasury pays indicates how risky financial markets estimate it is to lend dollars to them. If the U.S. Treasury is paying an interest rate of 3 percent to borrow dollars for one year, and the Mexican Treasury is paying 6.5 percent to borrow dollars for one year, the spread (risk premium) of Mexican government securities over U.S. government securities is 3.5 percentage points (350 basis points). Because securities often have different characteristics that make their interest rates not directly comparable, the Emerging Markets Bond Index Global uses generally accepted procedures, widely used in financial markets, to calculate standardized interest rates that are directly comparable. The index calculates rates every business day for individual countries. Each country rate is a weighted index of actively traded securities denominated in currencies foreign to the issuer.

Because the IMF's basic interest rate for lending SDRs can be considered a risk-free rate, it is legitimate to equate the risk premium in dollars to the risk premium in SDRs. In this example above involving Mexican government securities, Table 3 would calculate the subsidy to be 2.5 percentage points in SDRs just as it would be in dollars. In the absence of active private-sector lending in SDRs, it is impossible to say whether the risk premium in SDRs would be exactly the same as in dollars. We can, however, be confident that the difference, if any, would be small (much less than 1 percentage point), so the Emerging Markets Bond Index Global calculation of spreads gives an estimate of the subsidy that is accurate enough for the purposes of this paper.

Table 3 shows average risk premiums on a country's government debt before the IMF approved a loan. For example, the IMF approved a Stand-By Arrangement with Argentina on April 12, 1996. The "one month before" interest-rate spread shows how much higher the average yield on dollar-denominated securities issued by Argentina's

[29] Another attempt to calculate country risk is the Opacity Index (2001), which constructs a measure based on survey and other information on legal procedures, corruption, and other factors influencing the cost of borrowing.

government was than the average yield on U.S. Treasury securities from March 11 to April 11, 1996; the "three months before" spread is the average of the daily rates from February 11 to April 11. Using shorter periods, such as one day or one week before loans were approved, does not change the risk premiums dramatically.

Note that loans from the Supplemental Reserve Facility (SRF) carry interest rates 3 to 5 percentage points higher than other IMF loans. Their element of subsidy is therefore 3 to 5 percentage points lower than the spreads given in the table; the precise amount depends on how long the loan remains outstanding, since the interest rate increases over time.

The Appendix lists countries that received the IMF's approval for loans but that were not part of the Emerging Markets Bond Index Global at the time. Some of these countries had not issued enough government debt in foreign currency debt to generate the liquid markets many institutional investors seek. Others, such as Indonesia and South Korea, owed their foreign-currency debt to the IMF, foreign governments, and other public-sector bodies rather than to private-sector borrowers. Public-sector bodies rarely trade debt, so there were not active markets to generate data about risk premiums. Since the countries of the Appendix typically had less access to international financial markets than the countries of Table 3 (Indonesia and South Korea being the chief exceptions), one would expect the interest rates they paid to have had at least as strong an element of subsidy as was the case for the countries of Table 3.

Findings. In no case did the IMF lend to any country at a rate that fully adjusted for the risk that private lenders perceived, as reflected in the risk spreads of the Emerging Markets Bond Index Global. The subsidy element in IMF loans ranged from only about 1 percentage point, in the case of Thailand, to roughly 30 percentage points, in the case of Russia in 1999 (when Russia had defaulted on the portion of its foreign debt dating from the Soviet era).

As has been mentioned, the IMF's Supplemental Reserve Facility imposes a surcharge of 3 percentage points (300 basis points), rising in steps of half a percentage point (50 basis points) every six months to a maximum of 5 percentage points (500 basis points). The IMF has used the Supplemental Reserve Facility in only six of the 49 loans shown in Table 3 and the Appendix that have occurred since the facility was established in December 1997; the tables show the cases in bold. There are some cases where it seems clear that facility should have been tapped, but was not, such as Russia in 1999 and Ecuador and Nigeria in 2000. For the IMF to lend to those countries at rates in the low single digits, when the interest rates on their foreign-currency government bonds were 10 to 30 percent, amounted to an even bigger interest-rate subsidy than the SRF would have provided. When the IMF lent to Brazil in three times from 1999 to 2002, Argentina twice in 2001, and Uruguay in 2002, part of the money was from the Supplemental Reserve Facility, but the rest was from Stand-By Arrangements, which carry no surcharge. The result was to lower the interest rate those countries paid on the combined funds. "Blending" loans in this way is contrary to the spirit of the provisions passed by Congress in 1998 because it likewise reduces the effective interest-rate adjustment for risk.

VI. CONCLUSION

The United States contributes more resources to the IMF than any other country. In return for the most recent increase in the U.S. contribution, Congress in 1998 passed legislation mandating that the IMF charge higher, risk-adjusted rates of interest when lending to countries experiencing balance of payment crises. The IMF has not fully complied with the mandate. The IMF's adjusted rate of charge (currently 2.62 percent) is far below a true risk-adjusted rate for most borrowing countries. Even the rates of the Supplemental Reserve Facility, which are the IMF's highest rates, have typically been well below what borrowers would have paid to borrow from the private sector. The IMF should charge truly risk-adjusted rates. An appropriate level at which to set such rates would be the average market rate prevailing shortly before a balance of payments crisis erupted.[30] The IMF should increase its adjusted rate of charge and depend more heavily on the Supplemental Reserve Facility as a means for disbursing loans. It should also cease granting low-interest Stand-By loans at the same time as loans from the Supplemental Reserve Facility, because such "blending" reduces the average interest rates borrowers pay. These changes would make the IMF more cost-effective for American taxpayers and would give incentives for countries that borrow from the IMF to choose more prudent economic policies.

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[30] The International Financial Institution Advisory Commission (2000, chapter 2) proposed that the IMF charge a premium over the interest rate a country paid on its government debt one week before applying to the IMF for a loan. The commission's proposal is simpler than the procedure this study suggests, because it involves no judgment calls about dating the start of a crisis. Countries experiencing balance of payments crises would pay higher interest rates under the commission's proposal than under the procedure this study suggests.

Appendix. IMF loans not in Table 3

Country	*Date IMF approved loan*	*Loan type*	*Amount approved (million SDRs)*	*Amount drawn (million SDRs)*
Algeria	5/22/1995	EFF	1,169.28	1,169.28
Armenia	6/28/1995	SBA	43.875	13.5
Azerbaijan	11/17/1995	SBA	58.5	58.5
	12/20/1996	EFF	58.5	53.240
Belarus	9/12/1995	SBA	196.28	50
Bosnia	5/29/1998	SBA	94.42	94.42
Cameroon	9/27/1995	SBA	67.60	28.2
Cape Verde	2/20/1998	SBA	2.496	0
Costa Rica	11/29/1995	SBA	52	0
Djibouti	4/15/1996	SBA	8.25	7.272
Egypt	10/11/1996	SBA	271.4	0
El Salvador	7/21/1995	SBA	37.68	0
	2/28/1997	SBA	37.68	0
	9/23/1998	SBA	37.68	0
Estonia	4/11/1995	SBA	13.95	0
	7/29/1996	SBA	13.95	0
	12/17/1997	SBA	16.1	0
	3/01/2000	SBA	29.34	0
Gabon	11/8/1995	EFF	110.3	60.67
	10/23/2000	SBA	92.58	13.22
Georgia	6/28/1995	SBA	72.15	22.2
Haiti	3/8/1995	SBA	20	16.4
Hungary	3/15/1996	SBA	264.18	0
Indonesia	11/05/1997	SBA	8,338.24	3,669.12
	8/25/1998	EFF	5,383.1	3,797.7
	2/04/2000	EFF	3,638	1,160.8
Jordan	2/09/1996	EFF	238.04	202.52
	4/15/1999	EFF	127.88	66.99
Kazakhstan	6/05/1995	SBA	185.6	185.6
	7/17/1996	EFF	309.4	154.7
	12/13/1999	EFF	329.1	0
Korea	12/04/1997	SBA	15,500	14,412.5
(South)	12/18/1997	SRF	9,950*	9,950*
Latvia	5/21/1995	SBA	27.45	0
	5/24/1996	SBA	30	0
	10/10/1997	SBA	33	0
	12/10/1999	SBA	33	0
	4/20/2001	SBA	33	0

Appendix (continued)

Country	*Date IMF approved loan*	*Loan type*	*Amount approved (million SDRs)*	*Amount drawn (million SDRs)*
Lesotho	7/31/1995	SBA	7.17	0
	9/23/1996	SBA	7.17	0
Lithuania	3/08/2000	SBA	61.8	0
	8/30/2001	SBA	86.52	0
Macedonia	5/05/1995	SBA	22.3	22.3
	11/29/2000	EFF	24.115	1.148
Moldova	3/22/1995	SBA	58.5	32.4
Pakistan	12/13/1995	SBA	562.59	294.69
	10/20/1997	EFF	454.92	113.74
	11/29/2000	SBA	465	465
Panama	11/29/1995	SBA	84.3	84.3
Peru	7/1/1996	EFF	300.2	160.5
Romania	4/22/1997	SBA	301.5	120.6
	8/5/1999	SBA	400	139.75
	10/31/2001	SBA	300	52
Russia	4/11/1995	SBA	4,313.1	4,313.1
	3/26/1996	EFF	13,206.57	5,779.714
Sri Lanka	5/8/996	SBA	200	200
Tajikistan	8/20/1997	SBA	15	15
Ukraine	4/7/1995	SBA	997.3	538.65
	5/10/1996	SBA	598.2	598.2
	8/25/1997	SBA	398.92	181.328
	9/4/1998	EFF	1,919.95	1,193
Uruguay	3/1/1996	SBA	100	0
	6/20/1997	SBA	125	114.2
	3/29/1999	SBA	70	0
	5/31/2000	SBA	150	0
Uzbekistan	12/18/1995	SBA	124.7	65.45
Yemen	3/20/1996	SBA	132.375	132.375
	10/29/1997	EFF	72.9	46.5
Yugoslavia	6/11/2001	SBA	200	100
Zimbabwe	6/01/1998	SBA	130.65	39.2
	8/02/1999	SBA	141.36	24.74

Notes: EFF = Extended Fund Facility; SBA = Stand-By Arrangement; SRF = Supplemental Reserve Facility. * Indicates IMF charged interest of 3-5 percentage points above the rate for other loans, correspondingly reducing the element of subsidy. This table covers countries that are excluded from the J. P. Morgan Emerging Markets Bond Index Global because they lack active international markets for their government bonds.

Source: IMF Web site, *International Financial Statistics,* and other IMF data. We thank the staff of the IMF for providing data.

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