

Annual Reports 1998

Asking the Right Questions About the IMF

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January 1998

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The views expressed herein are not necessarily those of the Federal Reserve System.

The authors would like to thank Andrew Atkeson, Harold Cole, David Fetting, Narayana Kocherlakota, Lee Ohanian and Art Rolnick for helpful comments.

The ideas in this paper were heavily influenced by those in Feldstein (1998), Jackson (1986) and Sachs (1995).

The International Monetary Fund was established after World War II to manage a system of fixed exchange rates. In the early 1970s that system collapsed, and since then the IMF has been a bureaucracy in search of a mission. In the 1990s the IMF has greatly increased its lending, especially in Mexico in 1995 and in Asia in 1997-1998. This evolution has led to an extensive debate on the appropriateness of its activities and has raised the question: What should be the mission of the IMF?

One view in this debate is that the IMF should be abolished. A second view is that the IMF should serve as an international lender of last resort by expanding its lending to debtor countries in financial difficulty to prevent worldwide financial crises. A third view is that the IMF should take on a new role; namely, it should serve as a type of international bankruptcy court that handles international debt problems.

Our view is that the IMF should cease its lending activities altogether. We argue that there is no need for the IMF to act as a lender of last resort because any threats to the integrity of the international financial system as a whole can be effectively handled by the central banks of the major powers. Moreover, current IMF lending policies encourage improvident international lending.

We do not believe, however, that the IMF should be abolished. We think, for example, that the IMF can serve an important role as a type of international bankruptcy court that handles international debt problems. We think the last two decades of international lending make it clear that private markets and national governments have not resolved these problems effectively.

Our framework for analyzing the debate consists of asking three questions that are the right ones for evaluating the appropriateness of the IMF's activities. But first the debate.

The debate

Both critics and defenders of the IMF argue that the recent activities of the IMF resemble those of an international lender of last resort. Krugman (1998) and Fischer (1999) argue that the recent actions of the IMF are necessary for the smooth functioning of international financial markets. Indeed, they accept the view

that by bailing out financially distressed countries the IMF has become a world lender of last resort and applaud it for doing so. They argue that everyone accepts the need for a domestic lender of last resort so that, by analogy, everyone should also accept the need for a world lender of last resort.

Friedman (1998), Schultz (1998) and Schwartz (1998) accept that the IMF is trying to function as a lender of last resort and argue that it should be abolished. The crux of their argument for abolition is that IMF funds too often are used to bail out foreign lenders. The prospect of these bailouts reduces the incentives of lenders to probe into the conditions of individual countries. Individual governments, in turn, have less of an incentive to pursue painful, but responsible policies needed to convince lenders of their creditworthiness. These critics argue that since IMF loans distort the operations of international financial markets it is doing more harm than good.

Feldstein (1998) adopts an intermediate and somewhat more nuanced position. He argues that international financial institutions are needed to overcome the problems in the operation of private markets, but severely criticizes the IMF and insists that its lending programs should be tailored more finely to overcome problems in private markets.

Finally, Sachs (1995) is both a critic and a defender of the IMF. He argues that the world needs a lender of last resort, like the IMF, but that lately the IMF has been doing a poor job. In addition, he argues that the world needs a new institutional framework that functions as an international bankruptcy court.

Our framework

To help resolve this debate, we provide a framework that is based on the presumption that international agencies like the IMF should solve only problems that countries or individuals, acting on their own, cannot solve or solve poorly; such problems are known as international collective action problems. As we explain below, the IMF was designed to solve this type of problem. Collective action problems exist if actions taken by individuals or governments result in greater welfare when actions are coordinated rather than independently made. Thus, to determine if a suggested role for the IMF is appropriate, we must ask the right questions:

- Is there a clear collective action problem?
- Is the proposed solution narrowly tailored to solve the identified collective action problem?
- Is the IMF the best institution to solve the identified collective action problem?

If the answer to any of these questions is no, then the suggested role for the IMF is not appropriate.

A classic example of an international collective action problem is in setting tariff policy. Each country acting on its own has an incentive to set high tariffs in order to exploit its market power, but if all countries collectively agreed to lower their tariffs, all countries would be made better off. While it is easy to find collective action problems it is often difficult to solve them. The difficulty in solving the tariff problem, for example, is that if all other countries lowered their tariffs there would be an incentive for any one country to charge high tariffs. To solve this problem, then, enforceable agreements need to be reached that provide individual countries with the appropriate incentives to follow the coordinated policy prescription.

We use this framework to analyze the historical record of the IMF and to argue that the IMF should cease its lending activities and reconstitute itself as an international bankruptcy court.

An overview of our analysis

The IMF's designers saw the need for an institution to solve a collective action problem in monetary policy

similar to that in tariff policy. This problem is that each country acting on its own has the incentive to pursue self-interested monetary policies that help itself and hurt other countries. Coordination in monetary policies could make all countries better off. The particular method proposed to coordinate monetary policy was through a fixed exchange rate system administered by the IMF. By the early 1970s a consensus developed that while there was a collective action problem in monetary policy, this particular solution had smaller benefits than costs, and the system was disbanded. Currently, countries try to solve the collective action problem in monetary policy with informal agreements like those between the United States and Japan, and regional agreements like the European Monetary Union.

Since the early 1970s the most coherent rationale for the IMF is that it solves a collective action problem created when uncoordinated lenders set off a worldwide financial crisis by fleeing from the debts of many developing countries' governments or from the banking systems in such countries. The IMF attempts to solve this collective action problem by bailing out financially distressed countries with loans that have various conditions attached. The justification for these bailouts is the IMF is acting as a world lender of last resort, a role analogous to the one a domestic central bank plays in stemming domestic banking panics.

Does the world need a lender of last resort, and, if so, are the IMF's actions appropriate for such a lender? The need for a world lender of last resort is sometimes based on a flawed analogy between individual banks and governments. Just as domestic banking systems could suffer from bank runs, it is argued that governments could suffer from liquidity crises in which they are unable to roll over their short-term debt. In a domestic context the critical feature that allows bank panics to happen in the first place is the mismatch of the duration of assets and liabilities in the banking system taken as a whole. Assets and liabilities of virtually all developed countries' governments are not mismatched. Hence, a crisis affecting a developing country is unlikely to spill over into the developed nations, and this analogy does not justify a world lender of last resort.

The flawed analogy notwithstanding, the world does need some mechanism to deal with the possibility that worldwide financial crises, similar to domestic banking panics, could occur. The questions here are what is the appropriate way a world lender of last resort should function and what is the extent to which existing central banks can handle crises. We argue that a lender of last resort should not bail out individual financially distressed institutions. In the event of a financial crisis, such a lender should rather provide liquidity to the market as a whole, say by open market operations and by giving all banks more favorable terms at the discount window of the central bank. In essence the lender will end up supplying liquidity by replacing less liquid assets with more liquid assets. The market can then allocate this new liquidity as it sees fit. Under this policy, some financially distressed institutions will fail, but the financial system as a whole will not collapse. Fortunately, we already have mechanisms in place to deal with worldwide financial crises. The major central banks of the world have the capacity and the will to provide liquidity in a coordinated fashion. One example of this capacity and will was in the fall of 1998 when, in the face of a possible worldwide financial crisis, major central banks reduced short-term interest rates in an apparently coordinated fashion. In this sense, the IMF is redundant to prevent worldwide financial crises.

Furthermore, these central banks typically provide liquidity to the market as a whole rather than attempting to bail out specific institutions. In sharp contrast, IMF loans are always made to specific countries and governments in trouble. The IMF's policies generate rampant moral hazard so that they may actually increase the likelihood that countries get into financial difficulties. In this sense, the IMF's activities are harmful.

While we think the central banks of the major powers can and do deal with worldwide financial crises efficiently, we think there is a need for an international bankruptcy court to resolve smaller collective action problems between individual debtor countries and their creditors. We have seen two types of such problems at the country level in the last two decades. First, there can be coordination problems among lenders that lead to creditor panics for otherwise healthy economies. Cole and Kehoe (1996) argue that the situation in Mexico in 1995 is a classic example of a creditor panic: Mexico was unable to roll over its short-term debts even though most observers agreed that Mexico was fundamentally sound. Second, for unhealthy economies with

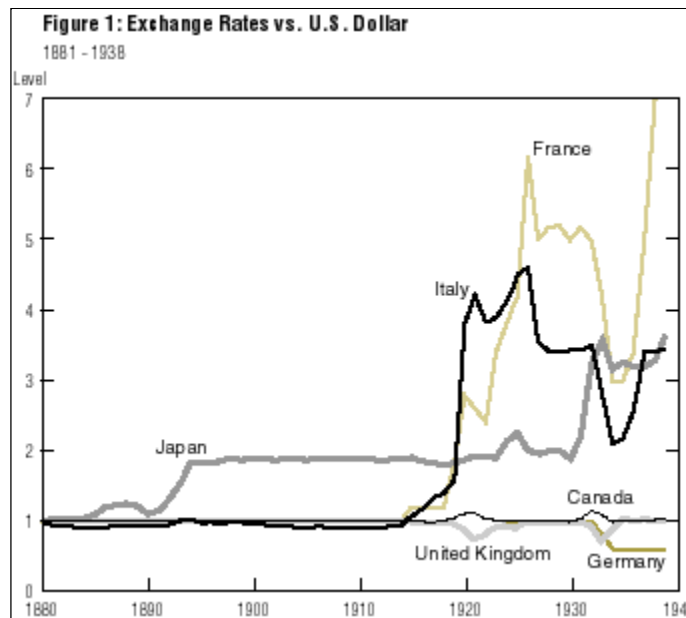
large external debts, there can be a need for a coordinated debt workout. For example, Bulow and Rogoff (1990) argue that coordination problems among private sector banks blocked efficiency-enhancing debt workouts in the Latin American debt crises of the late 1980s.

We argue that both kinds of coordination problems can be efficiently handled by a new international mechanism that is somewhat analogous to a bankruptcy court. This court would work as follows: When a debtor government is unable to meet its debt obligations it would seek the protection of the international bankruptcy court. The court would then assemble the creditors to facilitate negotiations and to provide expertise in evaluating conditions in the debtor country. If the court and the creditors determined that the government was financially sound, an agreement would be reached to solve the immediate liquidity problem. If they determined that the government was financially unsound, then the court and the creditors would propose a debt workout plan to the government. If the government in question agreed with the plan, then it would be carried out; if the government in question refused to abide by the plan; then creditors would be free to pursue their claims against the government through the standard channels. This court would thus serve to ameliorate the major coordination problems on the creditor side.

In addition, there are two other collective action problems that the IMF could solve. Briefly, the IMF could provide a nominal anchor by issuing a type of world money and making its supply independent of any particular country's economic conditions. Countries could peg their currency to this world money rather than to the currencies of major powers. In so doing they could make their commitment to responsible monetary policy transparent and not be subject to the vagaries of policies in other countries. Such a nominal anchor is a public good that private markets and individual governments have difficulty providing. The IMF could also enforce the disclosure of accurate information regarding countries' economic conditions and policies. Such information helps international financial markets function smoothly. Private markets and individual governments might have problems ensuring that information is accurately disclosed.

Origins of the IMF

The IMF was originally designed to promote cooperation among countries in the conduct of monetary policy. Before World War I all the major powers were on the gold standard. The commitment to peg to gold both fixed countries' exchange rates and sharply limited any country's ability to pursue an autonomous monetary policy. During the interwar period countries went on and off the gold standard and exchange rates fluctuated wildly. Figure 1 shows the absolute change in the nominal exchange rates between the currencies of six major economic powers and the U.S. dollar. The figure shows that before 1913 the exchange rates changed hardly at all, while between 1919 and 1938 they fluctuated enormously.



The designers of the IMF saw the extraordinary volatility in exchange rates as deriving substantially from the attempts of each country to use its policies for domestic gain. They saw the system as one with a collective action problem in which all nations lost as each nation privately pursued its own gain. Specifically, they believed that during recessions each country has an incentive to devalue its currency to aid exporters and thereby raise domestic employment and income. This devaluation reduces imports and thus reduces employment and income abroad.

In July 1944, over 300 representatives of 44 allied nations met for three weeks at Bretton Woods, N.H. The participants in the meeting wanted to create an institution that would remedy the collective action problem. The Bretton Woods meeting led to the Articles of Agreement that established the IMF. (See [Purposes of the IMF](#), [General obligations of members](#), [Governance and operating procedures](#)). These articles make clear that the designers wanted to promote cooperation in the conduct of monetary policy. In particular, the articles set up a system in which exchange rates could be altered only by mutual consent through the approval of the IMF. The idea was that each country would gain more by the commitment of other countries not to devalue than it would lose by giving up its freedom to do so.

The evolving role of the IMF

The role of the IMF has greatly evolved over its tenure.

The Bretton Woods years

From 1946-1958 most countries in the world had capital controls that restricted the holdings of foreign assets by their domestic residents and the IMF played a minimal role. Over this period, the system evolved into one where the United States pegged the dollar to gold and other countries pegged to the dollar. In the 1960s the system ran into more and more problems. Germany revalued in 1961 and again in 1969; the United Kingdom suffered a major currency crisis and was forced to devalue in 1967; France suffered a currency crisis in 1969 and devalued.

Fixed exchange rates constrained monetary policy severely. The persistent devaluations and revaluations during this period revealed that most countries wanted to use monetary policy to meet domestic objectives and were unwilling to accept the constraints imposed by the fixed exchange rate system. Thus, when there was a conflict between domestic objectives and keeping the exchange rate fixed, most countries preferred to

change the exchange rate.

The United States faced this conflict as well and showed unwillingness to sacrifice domestic objectives for fixed exchange rates. Over the 1960s the United States chose to increase its money supply growth rates substantially to achieve some domestic objectives. The consequent increase in inflation meant that the United States could not maintain the price of the dollar fixed relative to gold without a subsequent deflation. Unwilling to follow deflationary policies, the United States let the system collapse. After 1973 countries were at liberty to let their exchange rates fluctuate without IMF consent.

The Bretton Woods system collapsed and was not revived because of a growing consensus that a system of fixed exchange rates for the world as a whole was not the appropriate solution to the collective action problem in monetary policy. This system placed such severe limits on discretionary monetary policy that the benefits from this type of coordination were smaller than the costs. A variety of other formal and informal mechanisms are now pursued to solve this collective action problem.

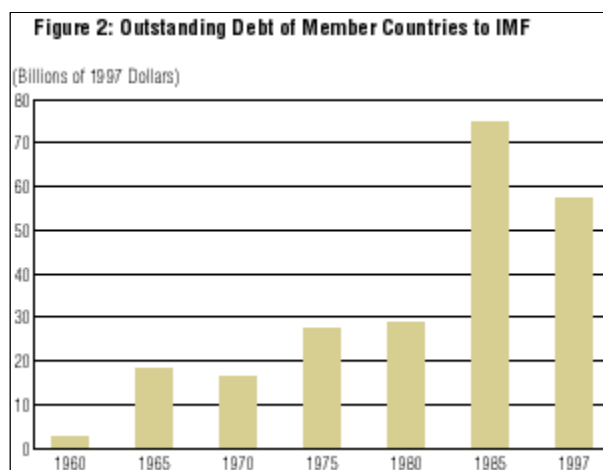
After Bretton Woods: Searching for a mission

With the collapse of the IMF's original mission, the history since 1973, on the face of it, seems to reveal a bureaucracy at the IMF in search of a new mission. The IMF appears to see a variety of collective action problems that it must remedy. Its remedies have been criticized vigorously.

During the late 1970s Latin American countries greatly increased their indebtedness to the rest of the world, particularly to banks in the developed countries. In the 1980s a deterioration of their economic circumstances made it clear that they would not be able to repay these debts. Collectively, creditors could gain by restructuring their debts in a coordinated fashion, thereby preventing default, but each creditor had an incentive to let the burden of restructuring fall on other creditors. Hence there was the potential for the IMF to play a useful role in solving this collective action problem by coordinating the restructuring of government debts owed to the banks.

A number of economists, including Bulow and Rogoff (1990), argue that instead of helping matters the IMF intervention actually worsened them. They argue that the banks hardened their positions on the hope that by doing so the IMF would end up giving more subsidized loans to the indebted countries that could then be used to increase the amount that the banks received. Hence, the net effect of the IMF's interventions was to prolong the bargaining process during which the unresolved claims of the banks discouraged other investors from investing. In this sense, the IMF's actions may well have harmed its intended beneficiaries.

More recently, the IMF has taken on a somewhat more ambitious role. Figure 2 shows outstanding loans from the IMF to its member countries and shows a very sizable increase in the level of IMF loan activity. In 1994, the Mexican government had difficulty rolling over its short-term debt, raising the possibility that the government would default. The collective action problem here was that if only lenders could jointly agree to roll over the debt there would be no prospect of default and all the lenders would have profited. The fear that other lenders would not lend raised the prospect of default and made each individual lender reluctant to lend. We refer to this type of collective action problem at the country level as a creditor panic.



Operationally, the IMF and the U.S. government attempted to solve this collective action problem by providing substantial funding. The IMF provided about \$18 billion in loans, roughly 5 percent of Mexican GDP, out of a total loan package of \$55 billion, about 16 percent of Mexican GDP. The conditions attached to the loans primarily required the Mexican government to follow responsible monetary and fiscal policies. Friedman, Schwartz, Schultz and others argue that this funding package was at better rates than the market would provide and hence was a bailout. They argue that this bailout raised the beliefs of lenders that similar bailouts would occur in other developing countries when a crisis arose. Hence, the bailout in Mexico reduced the incentives of lenders to probe into the conditions of other countries before making new loans. In addition, and perhaps to a lesser extent, the prospect of similar bailouts gave these governments less of an incentive to pursue painful, but responsible policies needed to convince lenders of their creditworthiness. Hence, they argue the bailout policies of the IMF, paradoxically, tend to destabilize international financial markets. In our view there is considerable merit to these arguments.

The IMF is also extensively involved in providing assistance to the countries of Eastern Europe and the former Soviet Union. The loans to these countries are intended to make their transition to capitalist economies smoother. The conditions attached to these loans go well beyond traditional monetary and fiscal policy prescriptions, specifying a comprehensive agenda for structural reforms which includes details of privatizing large parts of their economy, facilitating land registration, increasing public awareness of property rights and agreements that the government will not renationalize or increase its equity position in enterprises and commercial banks. (See Camdessus 1996.) The nature of the collective action problem associated with reforming domestic institutions and legal arrangements is not clear to us.

In many of the countries the IMF deals with there is also the problem of misuse of funds. Recently, Treasury Secretary Rubin testified that much of the \$4.8 billion in loans to Russia in the summer of 1998 may have simply helped wealthy Russian oligarchs move billions of dollars out of the country, instead of being used to help further the reforms that Russia agreed to. (See *New York Times*, March 19, 1999.) Critics of the IMF like Friedman, Schwartz, Schultz and others use examples like this to argue that besides leading to moral hazard many of the loans are simply wasted.

In July 1997, a financial crisis struck a number of countries in Asia. There were sharp reversals in capital flows as lenders refused to roll over short-term loans. Banks in these countries had borrowed heavily using short-term debt and had difficulties meeting their payments to foreign creditors. The IMF helped organize substantial loans to these countries.

For example, in Indonesia the IMF lent approximately \$10 billion, roughly 5 percent of Indonesian GDP out of a total loan package of \$33 billion, about 16 percent of Indonesian GDP. In Korea, the IMF lent approximately \$20 billion, roughly 4 percent of Korean GDP out of a total loan package of \$57 billion, about 12 percent of Korean GDP. The conditions attached to these loans went well beyond the traditional strictures

governing fiscal and monetary policy. In Korea, for example, the conditions included raising the ceiling on foreign ownership of a firm's equity from 7 percent to 50 percent, a variety of measures to open the economy to imports, changes in accounting standards for corporations and a variety of detailed reforms of labor markets that made layoffs easier. Again, the collective action problem associated with reforming domestic institutions escapes us.

Analyzing the roles of the IMF

The IMF's analysis of its role

The IMF's leadership has sought to develop an intellectual rationale for its actions. The IMF leadership apparently sees three types of problems that it should solve. First, its goal is to ensure that defaults by developing country governments do not have contagious effects on other countries and lead to worldwide financial crises (see Fischer 1999). Second, the IMF's goal is to prevent financial panics in developing countries even when they do not threaten to destabilize international financial markets. Such panics can reduce the volume of trade and thereby reduce employment and income in the rest of the world. Third, the IMF sees its goal as one of encouraging and enforcing general policy reform, even if it is not directly connected to countries' financial systems (see Masson and Mussa 1997).

We think that the contagious effects of developing country defaults are partly based on a flawed analogy. We do think worldwide financial crises can be triggered in various ways, including problems in developing countries, but they are best handled by the central banks of the major powers. We think that financial panics affecting developing country governments are also the result of a collective action problem, but they are best handled by an international bankruptcy court. Finally, we question whether poor policy, in general, is the result of an obvious collective action problem. While it is well understood that for some policies, like tariffs on international trade, there is collective action problem, for a variety of other policies, like facilitating land registration in Russia or reforming labor markets in Korea, there is no obvious collective action problem for the world as a whole to solve.

An inappropriate role: Lender of last resort

The argument for an international lender of last resort begins with the observation that most economists agree on the need for a domestic lender of last resort; therefore, it follows that we need an international lender of last resort. For some, like Krugman (1998), the argument ends with this observation, while others, such as Fischer (1999), conduct a deeper analysis of the strengths and weakness of the analogy.

While economists agree that it is desirable to establish institutions that prevent countrywide financial panics, there is less agreement on how such lenders of last resort should operate. One view, espoused by Fischer (1999), is that in the event of a crisis the lender of last resort should provide favorable terms to those banks that are financially distressed. We term this the *bailout prescription*. A second view, espoused by Bordo (1993), is that in the event of a crisis this lender of last resort should not focus on financially distressed institutions but instead should provide liquidity to the market as a whole, say by open market operations or by giving all banks more favorable terms at the discount window of the central bank. In essence the central bank will end up supplying liquidity by replacing less liquid assets with more liquid assets. The market can then allocate this new liquidity as it sees fit. We term this the *liquidity provider prescription*.

We argue that bailouts lead to rampant moral hazard problems and that a lender of last resort which acts solely as a liquidity provider can contain financial panics effectively and efficiently. We begin by reviewing the case for a domestic lender of last resort and then see what parts of that case apply in the international setting. We will argue that while there is a need for an international lender of last resort, that role is already

adequately filled by the central banks of the major powers.

The case for a domestic lender of last resort

Bank liabilities are largely deposits that pay fixed rates and can be redeemed upon demand. Thus deposits can be thought of as bonds of instantaneous maturity that are automatically rolled over by depositors until they are withdrawn. Bank assets are typically relatively longer-term claims on firms and households. There are a variety of reasons for this way of structuring assets and liabilities, but this structure almost automatically creates the possibility of systemwide bank panics.

In such panics most depositors attempt to redeem their deposits because they fear that banks will become insolvent. To meet depositors' demands the banking system as a whole attempts to sell its assets and call in its loans. Asset prices fall, economic activity declines and the banking system is unable to meet its depositors' demands. When asset prices fall, many hitherto solvent banks can become insolvent.

This panic is self-fulfilling. If depositors did not attempt to redeem their deposits, asset prices would not fall, banks would not become insolvent and each depositor could be assured that his deposits would be reasonably safe. This dependence of the asset side of banks' balance sheets on the behavior of those who hold their liabilities creates the possibility of an uncertain outcome, or what is known as a multiple equilibrium problem. If depositors fear that other depositors will redeem their deposits, they should rationally attempt to redeem their deposits first, while if they are confident that other depositors will not, then they should not either.

The decline in economic activity associated with a systemwide banking panic imposes significant social costs. Obviously, these costs could be avoided if only depositors could all somehow agree jointly not to withdraw their deposits. Almost from the beginnings of banking systems, bankers have understood the extent to which they collectively depend upon the confidence of the public and have attempted a variety of institutional arrangements to solve this problem. The most widely used is the prescription that a central bank should provide all the liquidity that is needed to stem the crisis. This assurance by the central bank enables the banking system to meet the claims of its depositors without selling assets or calling in loans. Individual depositors, therefore, can be confident that their deposits are relatively safe even if other depositors run on banks. This confidence eliminates the panic equilibrium.

The central bank can carry out its prescription in two distinct ways. Each way recognizes that to meet their depositors' needs banks may have to sell assets both to the central bank and to the public. In the bailout view, the central bank directly lends to troubled banks at subsidized rates. In the liquidity provider view the central bank purchases a sufficient amount of securities in the marketplace to ensure that the banking system as a whole has access to the liquidity it needs to fulfill its obligations to depositors. At first the central bank buys securities like treasury bills and commercial paper. If that is insufficient it lends to the banking system as a whole against less liquid assets like mortgages. The net effect of the central bank's liquidity injection is to ensure that the panic does not reduce the overall level of asset prices in the economy too much. Troubled banks can then sell their assets, not to the central bank, but to the marketplace to obtain the liquidity they need to pay off their depositors.

In our view the bailout prescription leads to severe moral hazard problems similar to those created by deposit insurance. The prospect of receiving funds from the lender of last resort, even if the bank is insolvent, reduces the extent to which interest rates on deposits vary with the riskiness of the bank's portfolio. Thus, the lender of last resort implicitly subsidizes the risk taking by banks. This subsidy leads banks to take on excessive risk and paradoxically can make financial panics more frequent and more severe when they occur. One way the lender of last resort could avoid moral hazard problems is to lend only to illiquid but solvent banks. In practice, it is often difficult to distinguish insolvent from illiquid banks and to evaluate the quality of the collateral, so that moral hazard problems cannot be avoided. The moral hazard problems here are essentially

identical to those created by deposit insurance. (See [Boyd and Rolnick](#) 1988 and the references therein.)

The liquidity provider prescription does not suffer from moral hazard problems because the lender of last resort is not implicitly subsidizing individual banks. Under this prescription illiquid but solvent banks borrow directly from the market, at unsubsidized rates, to pay off their depositors. An important aspect of this prescription is that the lender of last resort should lend directly to troubled banks only on readily marketable securities. If the lender of last resort attempts to substitute its judgment for that of the market about the value of other securities it runs the risk of implicitly subsidizing risk taking. We should emphasize that under this prescription it is quite likely that some banks will fail when financial panics occur. The reason is that financial panics typically occur when economic conditions are poor and in such situations some banks are likely to be insolvent. This kind of failure of individual insolvent banks, like the failure of other firms in the economy, is part of a well-functioning economic system.

It is certainly true that domestic lenders of last resort have not always carried out their role by strictly adhering to our liquidity provider prescription. We would argue, however, that in the United States and elsewhere concerns about moral hazard are shifting policy away from bailouts and toward liquidity provision. For example, between 1985 and 1990 over 99.7 percent of uninsured depositors at failed banks were fully protected by the U.S. government. Concern that the virtual 100 percent guarantee to uninsured depositors was leading to moral hazard led Congress to pass the Federal Deposit Insurance Corp. Improvement Act in 1991. This act erected a number of hurdles that must be passed before any uninsured depositors can be protected. These hurdles include approval by two-thirds of the governors of the Federal Reserve System, two-thirds of the directors of the Federal Deposit Insurance Corp. and approval of the Secretary of the Treasury. Although these new hurdles are an important step in mitigating moral hazard, [Feldman and Rolnick](#) (1997) argue that these hurdles are not yet high enough, and they give specific proposals on how they should be raised. In this sense the winds seems to be shifting away from bailouts domestically. We argue that it should shift in the international arena as well.

It is sometimes argued (see Fischer 1999) that the bailout prescription follows directly from the policies advocated in the classic analyses of a lender of last resort by Bagehot (1873) and Thornton (1802). We argue that this interpretation is mistaken. These writers thought the lender of last resort had the obligation to guarantee the liquidity of the whole economy, but not to particular institutions in the economy. They prescribed last-resort lending to the market as a whole during systemwide panics and not for emergency situations affecting isolated banks. For example, Bagehot (1873) in urging the central bank to lend liberally to the marketplace as a whole wrote:

“The holders of the cash reserve must be ready not only to keep it for their own liabilities, but to advance it most freely for the liabilities of others. They must lend to merchants, to minor bankers, to ‘this man and that man’, whenever the security is good.” (p. 25, 1962 edition)

Thornton (1802) clearly had moral hazard in mind when he wrote:

“It is by no means intended to imply, that it would become the Bank of England to relieve every distress which the rashness of country banks may bring upon them: the bank, by doing this, might encourage their improvidence.” ¹

To summarize, the case for a domestic lender of last resort stems from the extreme mismatch between maturities and risk characteristics of assets and liabilities common to banking systems. There are compelling reasons for the lender of last resort to lend freely in the general marketplace rather than to individual banks.

The case against the IMF as an international lender of last resort

In the international arena, there is no necessary mismatch between maturities of assets and liabilities of governments. If assets and liabilities are roughly matched, then international financial panics, if they occur at all, are unlikely to bear any resemblance to domestic banking panics. In this sense, when assets and liabilities are roughly matched there is no case for an international lender of last resort.

Less-developed countries' governments, especially those in troubled economic times, rely heavily on short-term debt. Since the assets of governments are mostly claims to future tax revenues, such governments face a mismatch between assets and liabilities. In such a situation panics are possible. If the government issues only short-term debt it is forced to rely on the willingness of creditors to roll over the debt as it comes due. If the size of the debt is large relative to the resources of individual creditors, there is a potential coordination problem which arises when each creditor correctly believes that other creditors will be unwilling to roll over their portion of the debt. If few of the lenders are unwilling to roll over their debt, then the government is faced with a liquidity crisis and is often forced into default. The prospect of default makes it rational for each creditor to refrain from rolling over the debt and justifies each creditor's beliefs about other creditors. The basic problem here arises from the presumed inability of creditors to coordinate their behavior. This coordination problem can lead to a flight from the country's debt, which we refer to as *creditor panics*.

As we describe below, creditor panics can justify an international body to define and enforce rules that help solve the coordination problem. (In "Can creditor panics be avoided by other means"? we investigate whether private markets can solve this coordination problem.) These panics, however, do not provide a justification for lending at subsidized rates to troubled countries. First, such panics can occur only if the government chooses to rely heavily on short-term financing. Most developed countries stagger their debt maturities so that at any given time only a small fraction of the overall debt has to be rolled over. Therefore, developed countries are relatively immune from creditor panics. Second, even if financial panics contagiously spread from one nation to another through some mechanism other than creditor panics, central banks have the ability and the willingness to expand world liquidity to prevent severe damage to the world economy.

The liquidity provider role of a lender of last resort can be played, for the world as a whole, through joint intervention by the central banks of the major powers. Recall that these interventions do not require that funds be directed to a particular country. All that is needed is that liquid funds be readily available in the marketplace so that the market can direct them to the best possible use. Indeed, we think there is considerable merit in the argument that interest rate reductions taken in the summer and the fall of 1998 by the Federal Reserve System and most European central banks was a coordinated response by major economic powers to stem concerns about potential international financial panics. IMF lending is therefore unnecessary to stem worldwide financial crises. Furthermore, since it is directed at individual borrowers, it is harmful because of the moral hazard problems such lending creates. The IMF perhaps has a role to play in advising central banks about the state of international financial markets, but the central banks of the major powers can be, have been and should be the international lenders of last resort.

Some appropriate roles for the IMF

Since, as we have argued, the IMF is not necessary to solve the collective action problem associated with the lender of last resort, and that such an institution can even exacerbate the problem, where does that leave the IMF? Based on our framework, we identify three collective action problems and propose the following roles for the IMF: to serve as an international bankruptcy court, to provide a nominal anchor through issuance of a type of world currency and to enforce disclosure of accurate information regarding countries' economic conditions and policies.

An appropriate role: To establish an international bankruptcy court

Even if the central banks of the major powers adequately fill the role of lender of last resort, there still can be

smaller collective action problems at the country level that create the need for institutions that can solve the coordination problems of debtors. First, as we argue below, there can be coordination problems among lenders that lead to creditor panics for otherwise healthy economies. Second, for unhealthy economies with large external debts there can be a need for a coordinated debt workout. This is a case where an analogy to a domestic institution is helpful rather than misleading. Coordination problems of this kind occur in lending to firms as well as countries. Countries solve this coordination problem through bankruptcy procedures, which are difficult to set up internationally, but are just as necessary. (This view is held by Eaton (1990), Feldstein (1998) and especially Sachs (1995).)

To see how coordination problems can arise at the level of lending to an individual firm consider the following. Suppose the legal system pays off debtors of firms in order of when they lay claims. Consider a firm with an existing stock of debt payments currently due that is larger than the value of its current stock of physical assets. Suppose first that the firm, if allowed to continue in operation, can pay off its debt claims with future revenues. The creditors of such a firm can face a coordination problem analogous to that faced by debtors to a government. If each creditor believes that none of the other creditors will lay claims, then he has no incentive to do so and the firm will be able to pay off all of its debts. But, if each debtor believes that other creditors will lay claims to the firm and dismember it, then that debtor should attempt to lay a claim as well. This coordination problem can create creditor panics at the level of individual firms.

Suppose next that the firm cannot pay off its debt claims with future revenues, even if it is allowed to continue. Coordination problems among creditors can lead to prolonged periods of disagreement during which the value of the assets that will eventually be divided up shrink greatly.

Such problems typically do not arise at the level of the individual firm because sensibly organized societies adopt bankruptcy procedures rather than paying off creditors in the order in which they happen to show up. Three provisions of bankruptcy procedures in the United States seem directly oriented toward resolving coordination problems. The first provision is the *Automatic Stay Provision* which prevents "any act to collect, assess, or recover a claim against the debtor that arose before the commencement" of the bankruptcy proceeding that remains in force until the bankruptcy is resolved. The second provision requires that plans for reorganizing the financial structure of the firm treat creditors within each class equitably within and across classes of creditors. The third, the *Debtor in Possession Provision*, allows firms to obtain working capital and continue in operation under court supervision by assigning priority to the new loans above the loans obtained before the bankruptcy declaration.

The first two provisions ensure that in the event of bankruptcy no debtor gains by attempting to lay claims and seizing assets ahead of other creditors. The third provision allows a bankrupt firm with relatively good prospects to continue in operation and thereby enhance overall payments to the creditors. The three provisions together effectively eliminate creditor panics. This analysis of bankruptcy law draws heavily on Jackson (1986).

In the international arena, legal agreements cannot be enforced without the cooperation of the governments of the involved countries. Debt contracts between lenders and governments are particularly prone to difficulties in enforcement. The absence of international bankruptcy procedures creates the possibility of creditor panics. This is one area where international agreements seem particularly necessary and can be highly beneficial.

We have argued that there is a need for an institution that can oversee and administer debt contracts between governments and foreign lenders. That is, the world needs an international bankruptcy court. Such an institution could be empowered to administer provisions similar to the three described above. The automatic stay and the equitable treatment provisions have the effect of lengthening the maturity structure of the government debt and, thereby, reducing the liquidity squeeze. The debtor in possession provision allows the government to continue collecting revenues from its citizens as well as providing necessary services to them

until the financial reorganization is finalized. Notice that suspension of convertibility practiced by the U.S. banking system in the 19th century is a type of automatic stay provision. In the same way that suspension of convertibility helped to stem bank panics, our suggested procedures can help to stem creditor panics.

An international bankruptcy court can also deal with situations where the borrowing country is simply unable to meet its debt commitments. In such a situation the court could oversee orderly debt workouts and arrange for an equitable reduction in payments owed to foreigners.

One concern about the functioning of an international bankruptcy court is that such a court obviously cannot have the powers to dismiss governments or to seize collateral located in the borrowing country. In this respect, such a court seems much weaker than a domestic bankruptcy court that can replace incumbent management or liquidate assets. This concern has some validity, but an international court does have effective powers of enforcement. The principal such power is to stop protecting governments from the demands of their creditors. Effectively, such a move would allow each creditor to pursue his or her claims without hindrance. In this process, ordinary trade, of course, would be disrupted and substantial costs would be imposed upon the borrowing countries. Indeed, the country may be forced into default.

A subtle concern is that a well-functioning court, by making it easy to renegotiate contracts, might distort the kinds of contracts the parties sign in the first place.² It is uncertain how important this consideration is relative to the possibility of creditor panics. Fortunately, we can let the market make this judgment by requiring that all new debt contracts specify whether they will be adjudicated by the international bankruptcy court in the event of disputes. Presumably the parties will agree to the arrangement that delivers the highest ex-ante benefits.

Eichengreen and Portes (p. xvi, 1995) take the view that a proposal like ours is “a nonstarter, given the very great legal obstacles to implementation.” They suggest a variety of more modest proposals, which seem to come down to encouraging countries and lenders to take actions that already seem to be in the interests of the parties concerned. While we take no stand on the political feasibility of our proposal, recent events have made obvious the economic benefits of fundamental institutional change.

If the IMF carries out these responsibilities well we would expect to see few, if any, creditor panics at the level of a country, just as the domestic bankruptcy court tends to eliminate them at the level of a firm. Moreover, for countries that are simply unable to meet their debt commitments we would expect to see efficient debt workouts.

An appropriate role: To provide a stable nominal anchor

There is another collective action problem that the IMF could solve. The IMF could provide a public good by providing an easy-to-verify nominal anchor that any country that wishes can peg to for as little or as long as the country sees fit. Private markets and individual governments would clearly have difficulty in providing such an anchor.

A key monetary policy problem faced by most monetary authorities is to convince their people that they are committed to pursue responsible monetary policies. One transparent way of conveying their commitment is to peg their exchange rates to a foreign currency. It is relatively easy to verify whether a monetary authority is adhering to its commitment. Alternative devices, such as money supply or inflation targets, are subject to manipulation and extraneous forces and thus often serve as poor communication devices of commitment to responsible monetary policy.

In practice many countries now peg to either a single foreign currency or to a basket of foreign currencies. A major problem with either of these is that changes in the foreign countries' economic conditions and policies

typically force domestic policy adjustments. These adjustments are often undesirable, but are the price paid to purchase commitment. A clear example of this problem occurred in the early 1970s when the Bretton Woods system broke down. U.S. monetary policy led to high inflation in the United States, which was then transmitted to the rest of the world through the fixed exchange rate system. The rest of the world decided the costs of importing this high inflation were less than the benefits from the peg and, since the United States was unwilling to pursue deflationary policies, the system broke down.

If the IMF provided a currency whose supply expanded at a steady rate, independent of economic conditions, individual countries could peg to the IMF's currency, and thus they could purchase commitment without being subject to the whims of other countries' policies. In one sense, such a system would function somewhat like the gold standard did, without being subject to the problem of fluctuations in the price of gold relative to other commodities occasioned by vagaries in the world supply of gold.

This nominal anchor is subject to a natural market test. It would have no value if both no country chose to peg its currency to it and no private individuals or institutions chose to use it in transactions. The need for a stable nominal anchor is self-evident because so many countries choose to peg to foreign countries.

An appropriate role: To certify policy and enforce accurate disclosure

The IMF appears to act as a certifier of good policy for financially distressed borrowing countries. One question is whether there is a collective action problem here, so that a publicly supported entity is needed to certify the financial conditions of individual countries. In answering this question it is helpful to draw analogies to domestic financial markets. In such markets there are a variety of rating agencies, securities analysts and the like whose job it is to certify the financial conditions of firms. None of these is publicly funded. In this sense, it is not obvious there is a collective action problem in certifying good policy. Hence it is unlikely that the IMF is necessary as a certifier of countries in global financial markets.

In domestic financial markets it is generally agreed that there is a need for government agencies, like the Securities and Exchange Commission, to enforce accurate disclosure of information. There is every reason to believe that the market and individual governments will not adequately provide these services when it comes to international borrowing as well. Hence, there may well be a collective action problem here that the IMF could solve by providing these services. An important and useful service the IMF currently provides is to collect and disseminate data. Given the public good nature of this activity it seems clear that some international organization is needed to ensure that this service is provided adequately.

Conclusion

To determine the appropriate role for the IMF, we must ask the right questions:

- Is there a clear collective action problem?
- Is the proposed solution narrowly tailored to solve the identified collective action problem?
- Is the IMF the best institution to solve the identified collective action problem?

If the answer to any of these questions is no, then the suggested role for the IMF is not appropriate.

We have asked these questions and determined the following. Worldwide financial crises are the result of a collective action problem, but the IMF should not try to prevent them since the central banks of the major powers can better handle this problem. Country-level financial panics are the result of a collective action problem, but the IMF should not bail out countries in order to prevent them since an international bankruptcy court can better solve this problem. The role of this international bankruptcy court, then, is an appropriate one for the IMF. Additionally, there are collective action problems in providing a stable nominal anchor and

enforcing the accurate disclosure of information, both of which the IMF can best solve.

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Footnotes

¹ In stemming the panic, Thornton argues that, in a panic a lender of last resort should greatly increase the amount of liquidity in the system to stop the problem from spreading broadly through the system rather than focus on simply, bailing out the individual banks.

“If any one bank fails, a general run on neighboring ones is apt to take place, which if not checked at the beginning by a pouring into the circulation a large quantity of gold, leads to very extensive mischief.” (p. 180, 1962 edition)

² Indeed, in optimal contract theory with private information, a standard result is that ex-ante efficient contracts are not ex-post efficient and increasing the extent to which contracts are ex-post efficient can reduce their ax-ante efficiency. (See Chari 1983 for example.)

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