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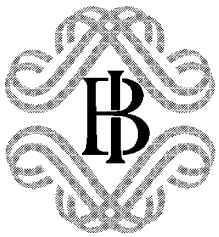
## "Enemy of None but a Common Friend of All"? An International Perspective on the Lender-of-Last-Resort Function

by Curzio Giannini



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# "ENEMY OF NONE BUT A COMMON FRIEND OF ALL"? AN INTERNATIONAL PERSPECTIVE ON THE LENDER-OF-LAST-RESORT FUNCTION

by Curzio Giannini [*]

## Abstract

The paper explores whether and how current lending-of-last-resort practices can be extended beyond national borders. It argues that what makes lending of last resort effective at the national level is a blend of resource availability, technical discretion, ex-ante supervision, and powers of enforcement. Accordingly, the importance of the distinction between illiquidity and insolvency and of penalty-rate financing is downplayed. Some peculiarities of the international environment make it difficult to replicate this structure, and this may explain why recent large-scale rescue packages have worked less than satisfactorily. However, private contingent credit facilities and IMF lending into arrears in the context of internationally-sanctioned, temporary moratoria on foreign debt, may offer some scope for effective, though limited in aims and resources, international liquidity support. To this purpose, amending the IMF Articles of Agreement appears indispensable, both to signal, contrary to the Bretton Woods design, the desirability of a high degree of capital mobility, and to facilitate the handling of temporary suspensions of foreign payments when such actions prove unavoidable.

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**Contents**

"Central Banks suffer from the limitation [...] that they are
*national* central banks. Only in a national economy that is largely self-contained,
can a central bank be a true central bank; with the development of world markets,
and (especially) of world financial markets, national central banks take a step
down, becoming single banks in a world-wide system, not at the 'centre' any longer.
Thus, the problem that was (partially) solved by the institution of national central banks
has reappeared, and is still unresolved (though we are trying to solve it) on the world level".

John Hicks, *The Two Triads*, Lecture III, p. 60.

## 1. Introduction[1]

Earlier in this century, the rapid development of fractional-reserve banking forced national authorities to seek ways to prevent and handle the associated phenomenon of financial instability. By the end of the 1930s a complex regulatory framework had emerged, through trial and error, based on three pillars: a body of legislation specifically addressed to banking problems, and especially to the handling of bank bankruptcies and liquidations; a regulatory/supervisory structure aimed at limiting the risk exposure of banks, partly by restricting competition; and a lender of last resort endowed with both the financial means and the authority to intervene as it saw fit to stem a crisis. Later on, following the lead of the USA, deposit insurance was added to the picture.

Many doubted at the time that such a complex architecture could ever be extended to encompass *international* financial transactions. Indeed, the Bretton Woods set-up was explicitly designed to avoid adding an international dimension to the problem. That is, the architects of the postwar international monetary system — while recognizing the need for a centralized mechanism, hinging on the IMF, to facilitate adjustment in the face of current account disequilibria — tried to keep financial instability a *national* problem. This was achieved by making capital controls the rule rather than the exception in international relations and by forbidding the IMF to make its resources available to finance a sustained outflow of capital. Accordingly, no provision was made in the otherwise extremely

[1] The paper was written while the author was visiting the Monetary and Exchange Affairs Department of the International Monetary Fund. Comments on a previous draft by Tomás Baliño, Carlo Cottarelli, Manuel Guitián, Eduardo Levy Yeyati, David Marston, Franco Passacantando, Massimo Roccas, Giuseppe Schlitzer and John Smith are gratefully acknowledged. Renée Cardenas and Nicoletta Olivanti have provided precious editorial assistance. The views expressed in the paper do not necessarily reflect those of either the Banca d'Italia or the International Monetary Fund.

comprehensive Bretton Woods agreement for coordinating bank supervision across countries or for establishing last-resort lending facilities for either international banks or countries.

As the Mexican, Asian, Russian, and finally Brazilian crises have shown, with freely mobile capital and largely deregulated domestic financial systems this strategy is no longer safe. In the wake of the Mexican crisis, in particular, a number of aspects of the overall framework have been closely scrutinized. Thus, Sachs (1995), Eichengreen and Portes (1995) and the G10 Report on The Resolution of Sovereign Liquidity Crises (also known as the Rey Report; see Group of Ten, 1996) have explored the possibility of introducing features of national bankruptcy laws into international financial relations. In the same vein, Goldstein (1997) has proposed an international banking standard to ensure effective bank supervision worldwide. At the same time the authorities have taken a number of concrete steps in this direction, with the publication of the Core Principles for Effective Bank Supervision and the Report on Financial Stability in Emerging Market Economies (Group of Ten, 1997).

Until recently, however, little attention was devoted to the issue of *whether and under whose control lending of last resort should become a permanent feature of the international setting*. This lack of interest was probably due to the belief that the Mexican package would remain exceptional. This was indeed the main, and explicit, premise of the Rey Report, and was apparently shared by most of the scholars who contributed to the post-Mexico debate on the architecture of the international monetary system (Kenen, 1996).

The assumption, as subsequent events have demonstrated, was flat wrong. In the space of just a few years the world experienced a whole battery of jumbo rescue packages, whose number and size were totally unprecedented. In the process, the IMF — without any intervening change in its basic charter, the Articles of Agreement — considerably refined its role as crisis manager, developing better information standards (the Special Data Dissemination Standard), an additional source of funding (the NAB), and a newly-designed window (the Supplemental Reserve Facility).[2]

It is therefore not surprising that the lending-of-last-resort function should have finally gained prominence in the authorities' agenda, as well as in the public eye, as can be seen both in the work of the G22 working group on the international financial architecture and in the

[2] An analogous process is underway at the World Bank, which has also been heavily involved in recent international rescue packages. Although most of what I have to say applies also to World Bank's operations, the paper focuses on the IMF, only.

heated debate that is now taking place on what role, if any, should be assigned to the IMF in the new environment.

This paper sets out to contribute to the debate on the role of the IMF by taking a fresh look at the whole issue of lending of last resort. It asks, in particular, whether, how, and to what extent national practices in this area should be adapted to the international environment, taking into account the specific constraints the latter involves. In order to tackle this complex question, the paper starts with a review of national practices (Section 2). This way of proceeding seems appropriate for at least two reasons. First, while the theory of lending of last resort seems to be fairly simple — indeed, its main elements had already been established in the nineteenth century by such writers as Henry Thornton and Walter Bagehot — its implementation is far more nuanced. Lending of last resort would be better described in our days as a toolbox, with the choice of the specific tool to be used left largely to the discretion of the crisis manager, than as a single well-identified instrument or procedure. The gap between theory and practice, it turns out, is so large as to deserve closer inspection. Second, if a specific international arrangement is to be successful, it must be internally consistent with existing national practices, or alternatively the latter will have to give way. To give but one example, it would make little sense to build international arrangements predicated on the restriction of competition among internationally-active financial firms if the regime prevailing at the national level was one of unfettered competition in financial markets. The paper then moves on, in Section 3, to analyze, on the basis of both theory and evidence, the features that make the international environment "special". It subsequently asks how the lending-of-last-resort function could be reshaped at the international level on the basis of the earlier considerations and recent trends in the activities and practices of the IMF (Section 4*)*. The final section pulls together the various threads.

## 2. Domestic lending of last resort: the theory and the practice

The theory of financial crisis management in a domestic context is fairly simple and its main tenets are relatively uncontroversial. The main unresolved dispute regards the *definition* of a crisis, not its *proper handling*. Monetarists tend to restrict the status of financial crisis to situations in which the banking system gets into trouble (Schwartz, 1986). By contrast, keynesians such as Kindleberger (1978) and Mishkin (1994) tend to consider the category as including a wider range of disturbances, such as a sharp decline in asset prices, the failure of a large financial intermediary or a disruption in foreign exchange markets.

The practical relevance of the distinction is questionable, however, since the recent wave of instability shows an increasing association between currency, banking, and in some cases even stock market crises. This may perhaps explain why, while the issue of causality is attracting increasing attention, the old debate on what constitutes a "crisis" is rapidly losing interest. Moreover, when it comes to how to handle a crisis there is very little, if any, controversy.[3] This is probably because it is now widely recognized that financial markets are plagued by a coordination problem, which has its origin in the very nature of financial assets. Since these are no more than claims to a future income stream, their value depends, among other things, on expectations concerning the amount of income that will accrue to the holder; this flow, however, is itself related to the asset's value. As a result, multiple equilibria are possible, depending on which set of possibly conflicting expectations ultimately prevails in the market. A given equilibrium with positive asset values will persist only as long as holders remain confident that their expectations will be fulfilled. A confidence crisis is simply a sudden revision of market sentiment, that is of the prevailing expectations as to a given asset's ultimate value.[4]

The notion of lender of last resort has evolved out of the perception that this coordination problem is sufficiently serious to warrant public action. Lending of last resort is seldom defined, however, probably because its precise contours vary with the circumstances of time and place. It could nonetheless be argued that a central feature of the function is a willingness to accept a risk unacceptable to all other lenders (Guttentag and Herring, 1983). Thus, *any* injection of funds that allows a bank to remain a going concern, notwithstanding its being unable to raise finance in the market, should be seen as falling within the category. To this day, the received doctrine of what a lender of last resort should do is still well captured by the maxim *lend freely to temporarily illiquid but nonetheless solvent banks, at a penalty rate and on good collateral*, which is usually derived from Walter Bagehot's (1873) classic statement. A corollary of this maxim is that insolvent banks should be immediately closed down.

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[3] Except perhaps for the advocates of free banking. See for instance Dowd (1989).

[4] Diamond and Dybvig (1983) are the standard reference in this regard. However, another strand of the literature plays down the practical importance of self-fulfilling runs, arguing that what triggers a run is typically a noisy signal that nonetheless contains useful information as to the intermediary's ultimate solvency. See, for example, Gorton (1885).

While the theory is simple, the practice is far more complex. Not only did it require considerable institutional adaptation before the theory could be turned into standard practice, but all of its constituent elements underwent significant modifications in the process. Let us see in what way.

### *2.1 "Lend freely..."*

Implicit in the call to lend freely is the assumption that the lender of last resort has access to resources which, if not actually unlimited, are at least well in excess of the largest need which could materialize in a crisis. Since, in theory, a run on a bank is motivated by individual depositors' fear that when they arrive at the counter there will be no cash left, in order to restore confidence the lender of last resort must be able to mobilize sufficient resources to meet all the liabilities of the troubled bank, or group of banks.

Resource availability has always been a major problem, however. We tend to think of central banks as having unlimited access to resources, since they can print money, but this is clearly simplistic. There are at least two qualifications to be added to this view. First, the lender of last resort may wish to protect itself from the consequences of its own mistakes, such as lending resources to a bank that in the end turns out to be insolvent, and therefore unable to repay. This was a particularly serious concern in Bagehot's times, since the nascent central banks of the day were still usually private companies required to give precedence to the interests of their shareholders.

Secondly, even if the central banker were sensitive to the full range of social costs that might result from his inaction, lending freely might prove hard to reconcile with the prevailing monetary regime. The idea here is that emergency lending, insofar as it results in a *net* inflow of reserves, may impair the attainment of monetary policy goals. A clear example of this tension can be found at a very early stage in the history of central banking, during the recurrent crises that plagued the London financial market in the middle of the nineteenth century.[5] If anything, the tension became more acute under the Gold Standard.

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[5] Under the Bank Charter Act of 1844, the Bank of England was prohibited from acting as a lender of last resort. During the crises of 1847, 1857, and 1866 the ban was circumvented in practice through the so-called Treasury Letters, which encouraged the Bank of England to lend freely while promising a *post factum* bill of indemnity should its behavior result in an infringement of the law (Giannini, 1995).

The result of all this is that Bagehot's doctrine had to be modified in at least two respects before it could be turned into standard practice. The first modification goes by the name of *concerted lending* and consisted in rescue operations being carried out by a small group of banks — usually those with the largest market share and longest tradition — with the central bank, where it existed, acting as a *primus inter pares* and crisis manager. The main attraction of concerted lending was that it made it possible, in principle, to deal with emergency situations by redistributing reserves, rather than creating additional ones. The practice was actually invented in the United States, which at the time had no central bank, in the form of the clearinghouse system (Timberlake, 1993). It quickly spread to Europe, however: a score of bank rescues in France, Italy, and England in the late 1880s — the best known of which is probably the Bank of England's rescue of Baring Bros. — were all based on the notion of concerted lending.

The second modification was introduced at a much later stage. It took the form of a specific, if implicit, division of labor between the technical agent (usually, the central bank) and the political principal (the government and/or the legislature), whereby major bank failures requiring massive injections of funds to avoid dismemberment would be dealt with directly by the principal, with the agent playing an ancillary position, if any. Like concerted lending, this division of responsibilities was a pragmatic response to the banking crises of the early 1930s; these were so big that in many countries special institutions were set up and entrusted with the task of disposing, one way or another, of troubled banks (Allen et al., 1938).

The relative importance of these two practical arrangements has varied over time. Despite the widespread opinion portraying the central bank as acting on its own in most circumstances, concerted lending has remained until recently the typical way of handling crises. In their survey of 104 bank crises in the 1980s and early 1990s, Goodhart and Schoenmaker (1995) find that only in two cases was the central bank willing and able to undertake a rescue on its own. In 25 of the 81 cases in which external funding was provided, a bank consortium was arranged. In some countries, the practice of calling upon sound banks to help troubled institutions became so entrenched that it received formal recognition. In Germany, for example, short-term liquidity assistance is provided not by the Bundesbank but by the Liquidity Consortium Bank, a specialized institution whose capital is shared between the Bundesbank (30 per cent) and commercial banks. In France, Article 52 of the banking law

gives the central bank governor authority to organize rescues based on solidarity contributions from the rest of the banking system.[6]

However, in recent decades financial liberalization, and the related spurt in bank competition, have eroded the foundations on which concerted lending rested. As a result, the ability of central banks to organize coordinated bank rescues on a voluntary basis has greatly diminished. In the United States, the practice has all but disappeared (Corrigan, 1990). In Europe, a latecomer as far as financial liberalization is concerned, isolated attempts at concerted lending may still succeed, but following the shock suffered by the Bank of England in 1984 when it attempted to organize a concerted rescue of Johnson Matthey Bankers, coordinated rescues have become less and less frequent (Goodhart and Schoenmaker, 1995; Ripa di Meana and Sarcinelli, 1990).

As to the government's role in bank rescues, after the 1930s it remained rather limited for a long time. This, however, was more a consequence of financial repression and low capital mobility — two features of the world economy when the Bretton Woods framework was put in place — than a conscious retreat. With the resurgence of bank instability that has accompanied the revival of domestic financial competition and cross-border capital mobility, the direct role of the government has greatly expanded, as in the aftermath of the Great Depression. This can be seen clearly in Table 1, which is based on Goodhart and Schoenmaker's (1995) empirical study. While up to the 1980s the funding of rescue packages was more or less equally shared between concerted operations and government/deposit-insurance packages, more recently taxpayers' money has been used twice as often as other sources of funding.

There are at least two reasons behind these trends. The first has to do with the sheer size of the problems to be taken care of. Lindgren, Garcia and Saal (1996) estimate, for example, that resolving banking problems has cost about 8 per cent of GDP in Finland, 4 per cent in Sweden and Norway, 3 per cent in the United States. It would have been unthinkable for a technical, and therefore unelected agency, no matter how competent, to decide on its own the proper allocation of public funds on such a massive scale. The second reason is that in the meantime central banks have undergone one of their periodic mutations. By highlighting the weaknesses of the existing monetary framework, the inflationary outburst of

[6] See Prati and Schinasi (1998) for a more detailed description of the present German and French institutional set-up.

the 1970s led to the goal of price stability re-acquiring priority over all other goals (Cottarelli and Giannini, 1997). In some countries, such as the United Kingdom and New Zealand, the resurfacing of the tension between monetary policy and bank-related functions, such as supervision and lending of last resort, has led to a redefinition of the role and leeway of the central bank. It is not clear that this signals the emergence of a new "model". However, even where no such change is contemplated, the widespread belief that price stability should be the overriding objective of the central bank is likely to exert some additional restraint on the latter's willingness "to lend freely".

Table 1

**USE OF TAX-PAYERS' MONEY**
(number of cases)

| Period | Funding | | Total |
|---|---|---|---|
| | Central bank–commercial banks | Deposit insurance–government | |
| 1974–1978 | 5 | 3 | 8 |
| 1979–1983 | 11 | 11 | 22 |
| 1984–1988 | 21 | 20 | 41 |
| 1989–1993 | 15 | 34 | 49 |
| Total | 52 | 68 | 120 |

Source: Goodhart and Schoenmaker (1995).

*2.2 "...to temporarily illiquid but solvent banks..."*

Even if not unlimited, the availability of last-resort finance is a powerful incentive to take on excessive risks. Therefore, the first prerequisite for an effective lender of last resort is that it be able to contain the moral hazard its very existence tends to breed. The problem was

recognized right at the outset. Both Thornton and Bagehot made it clear that in their view it was necessary to distinguish between illiquid and insolvent banks. Bagehot, in particular, was especially wary when he stated that during a generalized crisis, the lender of last resort should stand ready to accommodate only requests for liquidity coming from those who could provide *"good security"*. Incidentally, a corollary of this view was that, as long as the lender of last resort confined itself to discounting "good security", no need for bank supervision would ever arise. And in fact, until the 1930s, central banks had no supervisory powers. Even the Fed, which was given them from its establishment, felt that supervision was made somewhat redundant by strict adherence to the real-bills doctrine, and accordingly refrained from inspecting member banks for quite a long time (White, 1983).

However, the banking crises of the early 1930s changed the picture in this respect, too, teaching regulators two lessons. The first is that the distinction between illiquidity and insolvency is an exceedingly difficult one to make, especially because what appears to be "good security" in ordinary times may suddenly become highly insecure in a crisis. In reality, the distinction can be made, if at all, only *post factum*, after the crisis has subsided. Thus, the main challenge facing the lender of last resort is that it has to take quick decisions on the basis of only partial, and possibly faulty, information. The second lesson is that the fall of even clearly insolvent banks may be socially undesirable, either because it may adversely affect sound banks or simply, as Guttentag and Herring (1983) have put it, because *"banks usually are worth much more alive than dead even when their worth alive is negative"*.[7]

Since the 1930s only very seldom have individual banks been allowed to go under. The evidence on actual crisis management practices is rather scanty, as is to be expected given the particular nature of the task they are meant to fulfill. What we do know, however, bears this out very clearly. Over the last three decades, the failure of Bank Herstatt, back in 1974, is probably the sole instance in the industrial world of a bank of conspicuous size being allowed to fail without any public intervention at all. On every other occasion the banks were either rescued or, when they were eventually liquidated — an option contemplated only for sufficiently small banks, as Goodhart and Schoenmaker (1995) show — the authorities made

[7] These lessons have been corroborated, if somewhat belatedly, by the body of literature that has developed over the last two decades from the application to banking of the notion of asymmetric information (Mishkin, 1991). The gist of this literature is that, to overcome informational imperfections, banks develop long-term relationships with their customers, whose value would be lost if the bank was closed down and dismembered.

sure this was done in an orderly fashion, so as not to send shock waves through the financial system (Table 2).

Table 2

**METHODS OF DEALING WITH FAILING BANKS**
(number of cases)

| Methods | One Method | Two Methods | Total |
|---|---|---|---|
| Rescue package | 11 | 11 | 22 |
| Take-over by bank(s) | 33 | 16 | 49 |
| Special administration | 12 | 11 | 23 |
| Liquidation | 27 | 4 | 31 |
| Subtotal | 83 | 42 | 125 |
| Total | 83 | 21 | 104 |

Source: Goodhart and Schoenmaker (1995).

An “orderly” resolution process is one that fully exploits the specific circumstances of time and place. This explains why it is so hard to reduce the complexity of crisis procedures to a manageable synopsis. A pattern is nonetheless discernible. In particular, four main intervention strategies can be distinguished. The first strategy consists in having the troubled bank continue on a stand-alone basis after benefiting from a rescue package consisting either of emergency aid or the injection of fresh capital. This is the lending-of-last-resort method proper. A second strategy is for the bank to be taken over by one or more other banks, often after an injection of public funds. A third strategy consists in putting the faltering bank or banks under a special regime or in transferring bank loans to a special institution administered by the deposit insurance agency or the government. In extraordinary circumstances, the government may decide to nationalize the failed bank or, when the crisis is systemic, even the entire banking system. Lastly, if the bank is small enough and looks in very bad shape on

further inspection, it may be liquidated and dismembered according to the special rules that national laws typically prescribe for dealing with banks.

What makes the various strategies differ is, above all, the degree of "punishment" they entail for the management and the shareholders. In dealing with individual episodes, the authorities have paid particular attention since the 1930s to ensure that neither managers nor shareholders are shielded from the consequences of their own mistakes — with outright lending-of-last-resort being the least harsh strategy and liquidation clearly the most painful. Overall, strategies involving some degree of punishment have been far more common than punishment-free interventions. In the sample covered by Goodhart and Schoenmaker (1995), for example, there was a degree of punishment in three cases out of four.

Playing down the distinction between illiquidity and insolvency meant, however, that the authorities were left with no clear-cut criterion for deciding how specific cases should be handled, and hence the degree of punishment that should be applied. That is, authorities needed a practical way to assess whether the bank had got into trouble by sheer accident — an exogenous shock, say, or simply a rumor — or by avoidable misjudgments. The gap was filled with the development of the notion of "prudent" bank management. Being in a position to distinguish between well-managed banks and badly-managed banks ahead of a crisis was now clearly of the utmost importance. It fell largely upon ex-ante bank supervision to perform this function. On the one hand, supervision allowed the central bank, or the regulatory authority in countries where the central bank does not have supervisory responsibilities, to exert continuous pressure on banks to keep on a prudent course; on the other, it provided a ready-made criterion — the supervisory track record — for discriminating speedily among troubled banks when, as a result of financial turbulence, the true state of each bank's balance-sheet may no longer be ascertainable with a sufficient degree of precision.[8]

### *2.3 " ...at penalty rates and on good collateral"*

The last component of the Bagehot rule is the prescription that the lender of last resort lend *"at penalty rates and on good collateral"*. Bagehot himself offers several reasons

[8] There are several well-known episodes in which an unsatisfactory supervisory record clearly had the effect of tilting the authorities' action towards harsher resolution strategies. They include BCCI in the United Kingdom, Drexel Burnham Lambert in the United States, Banco Ambrosiano in Italy, and Crédit Lyonnais in France.

to explain why. First, allocative efficiency dictates that access to scarce liquidity be restricted to those who would put it to the best uses, just as a high price rations any scarce commodity in a free market. Secondly, the protection and security afforded by the lender of last resort should be paid for dearly, on distributive as well as prudential grounds. Thirdly, the penalty rate would provide an incentive for banks to exhaust all their existing sources of liquidity (and even develop new ones) before turning to the lender of last resort. Finally, the penalty rate would ensure the quick retirement of emergency finance once the crisis was over. All these reasons could probably go under the rubric "containing moral hazard": a penalty rate to some extent discourages the borrower from acting in such a way as to increase the probability of a bank run and, if a run does occurs, from postponing firm action to restore soundness.

Bagehot's plea for penalty rates has long been heeded in the daily practice of monetary policy. In virtually all OECD countries the panoply of monetary policy instruments comprises a marginal facility for providing banks with liquidity at rates set above market, as well as other official, rates (Borio, 1997). Whether such facilities fall within the realm of lending-of-last-resort is questionable, however. They are perhaps better depicted as ordinary, or routine, credit facilities designed to regulate the end-of-day liquidity of the payment system. As we have seen, the notion of lending of last resort is better reserved for situations in which the lender is willing to provide resources beyond any predetermined amount, accepting risks that are unacceptable to all other lenders in the market (Guttentag and Herring, 1983; Ripa di Meana and Sarcinelli, 1990). When defined in this way, it turns out that last-resort finance is seldom, if ever, provided at penalty rates. Indeed, in our times the fear that the central bank might be tempted to keep interest rates lower, not higher, than would otherwise be warranted to sustain a faltering banking system is perhaps the most-often heard argument in favor of separating monetary policy and supervisory responsibilities.

Evidence on the actual importance of this conflict is scarce and inconclusive overall. Nonetheless, the very fact that the criticism is voiced testifies to the concern that central banks with supervisory/lender-of-last-resort responsibilities might tend, under stress conditions, to be too lenient, rather than too stiff, in setting terms for their financing. As a matter of fact, while macroeconomic evidence is scanty, the information we have on individual rescue packages is all too clear. Most central banks have been willing to extend last-resort assistance at market or even at subsidized rates. In addition, rescue packages sometimes feature uncollateralized liquidity support (Garcia and Plautz, 1988; Corrigan, 1990; Crockett, 1997; Goodhart and Schoenmaker, 1995).

In some countries, the notion that emergency support should be provided on subsidized terms has even found its way into the law. Most prominent in this respect is the new Bank of Japan law (1997), which allows the central bank to advance uncollateralized liquidity to banks that *"unexpectedly experience a temporary shortage of funds for payment due to accidental causes"* (Article 33), and the Ministry of Finance to request the central bank to provide liquidity under special conditions *"when it is believed to be especially necessary for the maintenance of an orderly financial system"* (Article 38).[9]

A number of reasons explains this striking discrepancy between theory and practice. Prominent among them is that by charging higher-than-market rates the lender of last resort could make matters worse, not better, for the borrowing institution, which is typically in a fragile condition (Crockett, 1997; Garcia and Plautz, 1988). Moreover, banks themselves may fear that by applying for emergency liquidity at penalty rates they would be sending the market the "wrong" signal, precipitating an otherwise avoidable run. Even if depositors remain well-behaved, penalty-rate financing may create an incentive for the management "to gamble for resurrection", selecting high-return/high-risk borrowers in the hope of bringing about a rapid turnaround in overall profitability. Even in more ordinary circumstances — unless the rate of interest charged is so high as to make it preferable for the borrowing bank to liquidate a part of its illiquid assets rather than rely on last-resort financing (which is typically what the lender of last resort wants to avoid) — charging a penalty rate will not necessarily induce banks to be more prudent in managing their liquidity position (Guttentag and Herring, 1983). Subsidized lending, finally, may be practically unavoidable when a bank is clearly insolvent and the central bank tries to orchestrate a rescue package involving a takeover by other institutions. In such circumstances, providing a loan at less-than-market rates may both signal the authorities' commitment to keep the troubled institution afloat as a going concern and reassure the rescuing banks that they will not also have to bear the burden connected with last-resort lending.

Thus, if one were to generalize on the basis of what we know (which is admittedly far from satisfactory), it seems fair to say that penalty-rate lending, while clearly the dominant practice as far as *ordinary* last-resort operations are concerned, has never taken hold in the field of truly *extraordinary* operations. Here, many countries' central banks and other

[9] The so-called "Legge Sindona" in Italy may be regarded as falling in the same class. It states that the Bank of Italy can be requested to advance special loans at subsidized rates to troubled banks. The law has so far been invoked several times, the most prominent cases being the crisis of Banco Ambrosiano in 1982 and the recent crisis of Banco di Napoli.

governmental agencies have not hesitated to forget about both the penalty rate and (where the law permits) the availability of adequate collateral whenever a bank failure appeared to pose a systemic threat.[10]

This being the case, how is moral hazard averted, or at least contained within acceptable limits? As it turns out, the task of curbing moral hazard appears to have been performed largely by *constructive ambiguity* — the widespread practice of keeping ambiguous not only whether or not a rescue would be forthcoming, but also the terms and conditions at which it would come if the authorities deemed it necessary to intervene (Corrigan, 1990). Besides inducing risk-averse agents to be more cautious than they would be if they were certain of being bailed out at low cost, from the authorities' standpoint ambiguity has the desirable property of permitting greater flexibility of response in an environment in which imperfect information is a constituent element[11]. Long neglected, constructive ambiguity in now increasingly being recognized for what it is, namely the hinge on which the existing regulatory set-up revolves. This view has recently been endorsed by the G10, which, in its 1997 Report on *Financial Stability in Emerging Market Economies*, prescribed it as good regulatory practice, stating in particular that:

> *any pre-commitment to a particular course of action in support of a financial institution should be avoided by the authorities, who should retain discretion as to whether, when and under what conditions support would be provided. In addition, when making such a decision, it is important to analyze rigorously whether there is a systemic threat and, if so, what options there may be for dealing with systemic contagion effects in ways that limit the adverse impact on market discipline.*

The downside of constructive ambiguity is that it places a large degree of discretion in the hands of the agency responsible for crisis management. It therefore raises a serious problem of legitimacy. What principle should inform the crisis manager's daily actions? Who is going to control such actions *ex post*? Providing satisfactory answers to these two

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[10] The leeway a central bank has in requesting collateral varies from country to country. The law typically mandates that the central bank lend only against good collateral, but it may fail to specify exactly what assets should be considered as eligible. The possibility of uncollateralized lending, by contrast, is seldom explicitly contemplated. An exception in this respect, as already mentioned, is the recent Bank of Japan Law. In recent years, uncollateralized lending has been provided in a few exceptional cases also by the Federal Reserve and the Bank of England. In Belgium, Greece, Finland, and Sweden, unsecured credit operations are used also for fine-tuning purposes in the interbank market (see Prati and Schinasi, 1998; Enoch, Stella and Khamis, 1997).

[11] See Enoch, Stella, and Khamis (1997). See also Goodhart and Huang (1998) for a recent attempt to formalize this notion.

questions proved the major hurdle in the transformation of the banks of issue of the late nineteenth century into the full-fledged central banks of the twentieth. The first question was eventually tackled by removing the profit motive from the utility function of the central banker, while suppressing any line of business not strictly related to the central banking function (Goodhart, 1988). The second question was answered by strengthening the accountability of the emerging central banks to political institutions. In many cases, this was achieved through nationalization; in others, by subjecting the central bank to the authority of the legislative or, though in fewer cases, the executive power (Giannini, 1994).

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The upshot of the discussion so far is that when considering whether and how to add an international dimension to the lending-of-last-resort function, authorities should be aware that, at the national level, this function has been developing along lines that had hardly been foreseen by the early thinkers on the subject. The overall result of these developments is that the Bagehot rule, although still much quoted, is now little more than a *flatus voci*.

As the function has actually been discharged, the overriding concern has been the search for *flexibility*. A lender of last resort exists because clear-cut rules will not do. It is in this sense that, about two hundred years after Thornton, lending of last resort remains an art, not a science, to be applied on the basis of case-by-case assessment.

This genuine need for flexibility engendered two major problems, however. On the one hand, it made it necessary to devise means to avert moral hazard or at least contain it within acceptable limits. This challenge has been met by the *duo* made up of extensive supervision and constructive ambiguity, which put authorities in a position to concoct rescue packages featuring the appropriate blend of relief and hard medicine. On the other, it raised an enormous problem of legitimacy. Lending of last resort inherently involves redistributing resources. Up to a point, this may be done on a purely technical basis. Even within this limit, however, it took a number of important changes in central banks' status, functions, and accountability before such a concentration of power could go unchallenged. Beyond that point, moreover, both the experience of the 1930s and more recent banking crises in a number of industrial and emerging countries show that there is a tendency for political institutions to step in. There are also grounds for believing that, at least up to a point, this is desirable, insofar as it helps protect the legitimacy and operational leeway of the agent within its technical realm.

## 3. Three peculiarities of the international domain

Constructive ambiguity, as seen in the previous section, is a complex construct whose building blocks are: *access* by the lender of last resort to ample, if not unlimited, resources; *discretion* to decide, speedily and on a case-by-case basis, the form the intervention should take; *availability* of high-quality information prior to a crisis through supervision; and *authority* to impose penalties so as to contain moral hazard.

To what extent are these desirable characteristics likely to prevail at the international level? This is the question to which I now turn. The first part of this section is devoted to describing one trade-off — that between discretion and resources — that seems to have marred international institutions in many fields, hampering their effectiveness in emergency situations. I will also discuss the reasons that may explain this regularity. I then analyze the consequences of the notion of national sovereignty for the authority of international institutions, and also by implication for their speed of response. I finally address one specific form moral hazard takes at the international level, namely moral hazard on the creditor, as opposed to the debtor, side.

### *3.1 International organizations and the issue of control*

The most interesting issue raised by the existence of institutions is how they ever manage to be enforced. All institutions must have at their roots some means by which the rules and procedures of decision making they embody can credibly constrain individual and collective behavior. In this respect, national institutions have the advantage of being *cumulative*, in the sense that they can rely on previous, successful, acts of institution-making, such as the establishment of a credible legal system, or of rules of political representation, which can significantly lessen their specific problem of enforceability. By contrast, in a world of independent, and therefore politically sovereign, entities an *international* institution must at bottom be *self-enforcing*, in the sense that, for the institution to be credible, member countries must clearly perceive that they have a long-run interest, in a wide variety of circumstances, to stick to it rather than defect to pursue short-run gains. This is but another way to say that any obligation arising from international conventions, customary laws, or treaties depends for its execution on the *continuing* consent of the obligor (De Bonis, Giustiniani and Gomel, 1999).

Recent theoretical reflection on the political economy of cooperation has shown that, short of recourse to force or to the enforcement services of a hegemonic power, international collective action requires a notion of *reciprocity*, whereby each member can be sure that there will be a balanced distribution of whatever gain (or loss) derives from the cooperative effort.[12] The notion of "balanced distribution of gains and losses" is clearly ambiguous. However, a fairly unassuming interpretation would take it as implying that there should be no systematic pattern of gains and losses among a given institution's membership. In highly structured contexts, the principle of reciprocity can work marvels, testifying to the general invalidity of the "extreme realist" argument that credible international institutions are not feasible. Crisis management, however, is different, for at least two reasons. First, by the very definition of "crisis", the payoff structure tends to vary from one crisis to another, so that it is difficult *ex ante* to estimate gains and losses with any accuracy. Secondly, dealing with a crisis entails shifting resources from one section of the membership to another, if only on a temporary basis. If certain members are more crisis-prone than the others, legitimizing the crisis manager may prove difficult, unless it is clearly understood — although this may not be the case because of payoff uncertainty — that stopping the crisis is in everybody's interest. This does not mean that effective crisis management is impossible. It only means that the issue of control is, if anything, magnified when shifting from the national to the international level. To contain the risk of abuse, countries will want to make sure they have all the relevant information before committing their own resources in each particular case. Alternatively, if they ever agree on a more structured response — by setting up, say, a specialized crisis management organization — they are likely to devise a control structure that circumscribes possible losses. This could be done, for instance, by reducing the amount of committed resources, or the technical discretion of the crisis manager, or both. A response of this kind, it needs to be understood, is rational given the circumstances under which the "game" is supposed to take place.[13] Its practical consequence, however, would be to reduce the effectiveness of international crisis management.

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[12] See Milner (1992). As an alternative to reciprocity, international cooperation could be structured so as to produce side-payments of different kinds to the various parties involved. However, this option, which implies continuous renegotiation, seems to be more relevant to *ad hoc* or relatively unstructured forms of cooperation than to the more institutionalized ones considered in this paper.

[13] See Calvert (1995) for a discussion of the role of information exchange in situations where there is payoff uncertainty. That each party to a contract will want to limit the discretion of the other parties in worst-case scenarios when the contract is fundamentally incomplete is the basic insight of the property rights literature; see Hart (1995).

Postwar international monetary relations, and the structure of the institution placed at their center, namely the IMF, bear witness to the practical importance of these considerations.[14] The IMF was built around two foundation stones, laid respectively on the financial and the operational side. On the financial side, it was agreed at Bretton Woods that the new institution would operate not as a financial intermediary, let alone as a central bank, but rather as a *credit union*, "with relations among its members based on the principle of mutuality" (Kenen, 1986). Accordingly, each member's access to balance-of-payments finance was to be based on the quota it contributed to the common pool and on a reciprocal commitment to grant credit to other members. On the operational side, it was mandated that the institution would base its actions on the principle of universality, according to which no discrimination should ever be made among member countries, or groups thereof. At a more technical level, the principle of universality was interpreted as implying uniformity of treatment of individual members (Guitián, 1992). Overall, one could hardly imagine a more wholehearted acceptance of the principle of reciprocity.

The notions of reciprocity and lending of last resort are nonetheless basically at odds with each other. The lender of last resort, as we have seen in the previous section, must either be in a position to create its own resources — which would be incompatible with the credit union notion — or to channel resources systematically from those who have them to those who do not — the kind of distributive task that eventually brought down the US clearinghouse system in the early years of this century. The framers of the international monetary architecture seem to have been aware of this tension, since they took a number of steps to make sure that the IMF would *not* develop a lender of last resort role, either by statute or by spontaneous endogenesis. The first step involved renouncing capital mobility, contrary to the original intentions of the White plan. The objective of exchange-rate stability, which was the ultimate goal of the endeavor, was pursued through a double-pronged strategy based on capital controls and individual countries' access to short-run current account financing. Furthermore, to make clear that this adjustment-smoothing function should not be interpreted as envisaging a lender of last resort role for the new institution, a passage in Article VI explicitly forbade the provision of IMF resources to countries experiencing "*a large or sustained outflow of capital*".[15] A further step was the avoidance, throughout the

[14] The evolution of international cooperation in the field of public health and the history of the United Nations are two other cases in point. See Cooper (1989) on the former and Nicholson (1998) on the latter.

[15] It may also be worth recalling that the common pool of resources turned out to be far smaller than originally envisaged. The British plan suggested that *quotas "be fixed by reference to the sum of each country's exports and imports on the average of (say) the three pre-war years, and might be (say) 75 per cent*

Articles, of the language of credit, the main effect of which was to make the IMF charter almost unreadable.[16] Finally, the procedures, terms, and purposes to which the institution should adhere in the daily conduct of its business were all carefully spelled out in the Articles — in stark contrast to the vagueness, even recklessness, with which the mission and operational content of central banking were at the time laid out in comparable national documents. [17]

The overall impression one gets is that of a complex endeavor aimed at sustaining cooperation in the "real" sector by keeping purely financial considerations, and therefore also the lender of last resort role, a *national* concern. Indeed, as Helleiner (1994) remarks, if one could speak of collective action at all insofar as the financial sphere is concerned, it is in connection with the all-too-transparent objective of ruling out the very possibility of unilateral financial liberalization.

This strategy could be expected to work only as long as capital controls worked. Thus, the tension between reciprocity and effective lender of last resort action was bound to resurface when, in the early 1960s, the effectiveness of capital controls began to diminish as a result of the restoration of current account convertibility. The US and UK authorities, in particular, soon began to look for an emergency mechanism that could be speedily relied upon in times of crisis — but emphatically not in ordinary circumstances — to sustain the exchange value of reserve currencies in the presence of sudden capital reversals. They intended that "speedily" should mean that resources would have to be provided on a quasi-automatic basis, without the borrowing country needing to subject itself to the close scrutiny of the multilateral organizations or to undertake extensive negotiations with ultimate lenders (James, 1996). The mechanism eventually took the form of the General Arrangements to Borrow

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*of this amount"*. Joan Robinson later calculated that this formula would have resulted in quotas totaling $36 billion. The actual amount of the quotas agreed at Bretton Woods was instead $8.8 billion. See Dam (1982).

[16] *"Written in Cherokee"* lamented Keynes; *"an essay in Rabbinics"*, echoed Denis Robertson. For a more balanced evaluation of the linguistic asperities of the Articles, see Mikesell (1994) and Dam (1982).

[17] To Keynes, this was the best way to protect the "central management" of the new institution from political interference. "*If rules prevail*", he remarked, "*the liability attaching to membership of the system are definite, whilst the responsibilities of central management are reduced to a minimum. On the other hand, liabilities which should require the surrender by legislation of too much of the discretion, normally inherent in a Government, will not be readily undertaken by ourselves or by the United States. If discretion prevails, how far can the ultimate decision be left to the individual members and how far to the central management?* [I]*f it is to the central management that the discretions are given, too heavy a weight of responsibility may rest on it, and it may be assuming the exercise of powers that it has not the strenght to implement"*. This passage is quoted in Horsefield (1969), par. 15.

(GAB). The main novelty of the GAB, which was also what made it acceptable to its contributors, was their being distinct from the pool of resources available to the general membership. Quotas would not be affected by it, and as a result the IMF could not draw on the GAB to finance the balance-of-payments difficulties of members not participating in the arrangement. As Kenen (1986) has remarked, the GAB was a kind of credit union writ small, made possible by derogation from the principle of universality. Departure from universality, however, was not enough to make the arrangement as speedy and flexible as its proponents had hoped. In fact, the notion of quasi-automaticity was eventually dropped, because a number of contributors demanded that activation require the consent of each participant in the scheme. Consequently, the GAB carried a "double lock", in that any drawing would have to be approved by both individual GAB members and the IMF Executive Board. James (1996) singles out has this episode as *"a major dent in the Fund's claim to universality and to a capacity to judge by itself the conditions of assistance in dealing with balance of payments problems"*.[18]

Indeed, the subsequent record of the GAB was far from satisfactory. The high point of the arrangement came in 1977-78, when the IMF resolved to borrow almost SDR 4 billion to finance drawings by the United Kingdom, Italy, and the United States. By contrast, the way the GAB had been conceived meant that it could play no role in the debt crisis of the early 1980s. However, in the light of that experience the system was modified in 1983 to give the IMF permission to use the GAB to finance transactions with non-participants. This departure from the credit union principle, however, proved purely formal, because the double-lock principle prevented recourse to the arrangement in all the following crisis episodes, including the recent Mexican and Asian ones. The only subsequent activation of the GAB occurred in the context of the failed Russian rescue package, and was made practically inevitable, as well as ineffective, by the exhaustion of all other possible sources of funds.

It would of course be perfectly possible to argue that the story of the GAB is but one episode in the learning process that has been taking place worldwide ever since financial liberalization began. According to this view, it would only be a matter of time before the

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[18] Another problem raised by the GAB was its apparent incompatibility with Article VI, which, as already mentioned, prohibits the use of IMF resources *"to meet a large or sustained outflow of capital"*. The problem was solved by interpreting the adjective "large" as referring not to the size of the borrowing country or of the outflow itself, but rather to the size of the emergency package. Accordingly, financing would be prohibited if it absorbed *"an excessively large part of the Fund's resources"* — with the task of deciding what this meant in practice being left to the Board (Polak, 1998).

dismal experience of recent crisis management led authorities to start devising a more effective way of discharging the lender of last resort function at the international level. There seems to be ample ground for skepticism, however, in view of the responses the recent crises have so far elicited on the funding and operational sides of the IMF.

On the funding side, the response can be described as "more of the old medicine", rather than as a new prescription. At Halifax, in June 1995, the G7 leaders called for the opening of negotiations *"with the objective of doubling as soon as possible the amount currently available under the GAB to respond to financial emergencies"*. The arrangement that has emerged from such negotiations, the New Agreements to Borrow (NAB), reproduces the GAB structure in all important respects, including the double-lock principle. Thus, for example, the NAB can be activated to cope with financial crises of systemic importance even when these originate in a non-member country. The main advantage of the NAB over the GAB, which will be kept in place, consists in the number of contributors, which has been significantly expanded. As a result of the coexistence of the two mechanisms, however, the activation procedure is now even more cumbersome, since rules have had to be devised to ensure that the same country would not be called upon to contribute twice for the same operation, as a member of both the GAB and the NAB. Such rules, besides, make it difficult to estimate the exact amount of resources that could be drawn in any particular instance. Thus, even though the NAB, like the GAB in its post-1983 version, goes beyond the principle of reciprocity, it does so in a way that raises doubts about its effectiveness as a pool of resources for lending-of-last-resort functions. This concern is if anything strengthened by the fact that at no time during the negotiations that led to the NAB was the next most obvious alternative, which consists in the IMF borrowing directly from the market, seriously contemplated.[19]

On the operational front, Article VI's prohibition of capital account financing still stands. Indeed, even though the IMF staff has invoked its repeal on several occasions (see for example Quirk et al., 1995), the amendment envisaged to give the IMF authority over capital account liberalization does not contemplate such a bold step. To be sure, the present language

[19] This possibility is not ruled out by the Articles. However, it has never been put into practice. The closest the IMF came to it was in 1980, when the Interim Committee's communiqué stated that *"the Fund should make, as soon as possible, the necessary arrangements to enable* [*it*] *to borrow from various potential sources of financing, not excluding a possible recourse to the private markets if this were indispensable"*. The idea was eventually dropped. It has been revived since then by Dam (1982) and Padoa-Schioppa and Saccomanni (1994), but to date it has never found its way into policy discussions.

of Article VI did not prevent either the Mexican or the Asian package, since in both cases there happened to be a current account imbalance. The fact that the nature of those crises had little to do with the current account was and is clear to everybody, however; so much so that the IMF has felt the need to set up a special window — the Supplemental Reserve Facility (SRF), created in December 1997 and since utilized for the Korean, Russian, and Brazilian packages — to deal explicitly with capital account problems. Inevitably, however, this meant Article VI had to be confronted squarely. This time, the justification for the facility could not be found, as had been the case in the early 1960s, in the adjective "large", as the recent packages were large by any standard. Moreover, the activation of both the GAB and the NAB, which are obvious sources of funding for such a facility, depends on there being a systemic threat to the international monetary system, which would be unlikely to be the case if the capital outflows were "small". The only way out of the *impasse* was to work on the adjective "sustained", interpreting it as referring to the future, rather than the past. Accordingly, the SRF has been described as aiming not so much at *financing* a given outflow, no matter how big or sustained up to that moment, but rather at *stopping* it by rebuilding the country's reserves.

It would be difficult not to view this as a form of rule-bending based on some *"fancy legal footwork"* (Polak, 1998). One must look at this realistically. Rule-bending is a common practice in many real-world institutions. Under some circumstances it could even be viewed as healthy, to the extent that the institution is confronted with new challenges that could not be envisaged by its founders. Today's common wisdom is often yesterday's crime, and the history of central banks, for instance, is replete with evidence of the truth of this maxim. Rule-bending, however, has a major drawback: if protracted or applied to "core" functions, rather than to marginal ones, it risks putting the legitimacy of the institution that indulges in it at great peril. With its legitimacy called into question, the institution will then have little choice but to seek the support of its most powerful members, by putting their interest first. One way or the other, any pretense of universality and reciprocity would become illusory.

Lending of last resort clearly is not a marginal function of an international monetary system. Moreover, as we have seen it is a function that cannot be easily squared with the principles of universality and reciprocity, since the lender of last resort has to act swiftly and with determination, taking decisions that are likely to discontent al least some of the parties affected. In other words, the lender of last resort cannot be expected to be under all

circumstances *"the enemy of none but the common friend of all"*.[20] Whether or not its actions work in everybody's interest can be ascertained only *ex post*. The issue of who controls the lender of last resort's actions, as a result, is inescapable. The Bretton Woods architects were well aware of the problem, and they conceived capital controls and the rule-based framework within which the IMF would operate precisely as a way to limit conflicts of interest in this regard. Any attempt now to add an international dimension to lending of last resort is unlikely to succeed unless the control problem is faced squarely, and an alternative solution found. Both past experience and recognition of the difficulties inherent in international decision-making suggest cautious skepticism about the possibility of this happening in the foreseeable future.

### *3.2 The implications of national sovereignty*

International financial crises need not be *sovereign* crises. However, an important lesson learned over the past twenty years or so is that crises of major proportions originating in the private sector tend to turn rapidly into sovereign crises, as the government steps in under the pressure of domestic public opinion in an attempt to bail out the banking system or an important section of the corporate sector. Indeed, as the recent East Asian crises show, international rescue packages may have the property of making this transmutation inevitable. Thus, in most crisis episodes, a distinction between private-sector and sovereign crises tends to be very difficult to draw.

Sovereignty is a political, not an economic concept. As such, it is not easily squared with the economist's standard toolbox. A way around the problem consists in treating sovereign entities as if they were utility-maximizing individuals with well-defined preferences

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[20] As instead claimed by Nicholas Biddle, chairman of the Second Bank of the United States, in 1832, during the congressional hearings that led to the vetoing by President Andrew Jackson of the Bank's rechartering. Under Biddle, the Second Bank had come to assume — far ahead of the Bank of England — the role of lender of last resort with respect to commercial banks. As a matter of fact, Biddle spoke of central banking in surprisingly modern terms. However, his claim that the lender of last resort worked under all possible circumstances in everybody's interest made him politically suspect. On purely economic grounds, nobody was able to show that the Bank's actions had been socially harmful. Nonetheless, the Bank was eventually brought down on the accusation that its management had gone beyond its mandate, trespassing on the turf of the Congress. It was the right decision, commented John Quincy Adams, because *"power for good is also power for evil, even in the hands of Omnipotence"*. The scar left by the battle over the Second Bank of the United States is still visible in the legislation that established the Federal Reserve System about eighty years later, which contains absolutely no reference to a "central bank". On the history of the Second Bank, see Timberlake (1993) and White (1983).

and endowments. After all, according to methodological individualism, the individual microeconomics speaks of is himself "sovereign", in the sense that he/she is free to choose (rationally) on the basis of his/her endowments and preferences. There is a major distinction between the sovereignty of an individual and the sovereignty of a state, however. The sovereignty of an individual ceases the moment a choice has been made, because once a contract is entered into, the parties can rely on external institutional arrangements to see it enforced. A state, by contrast, is sovereign in the legal sense that it is *superiorem non recognoscens,* i.e. it recognizes no authority as superior to itself.[21]

An important implication of the notion of sovereignty is that countries lack a foolproof way to commit themselves to a given course of action. This does not mean that the authorities will be unable to commit themselves credibly under all possible circumstances. Rather, it means that, since there is no independent — i.e. third-party enforced — commitment technology, the credibility of policy announcements is not to be taken for granted, as it will depend on the characteristics of the overall institutional environment, as well as on the specific payoffs from reneging the commitment. Failure to come to grips with this problem goes a long way towards explaining why the Bretton Woods set-up did not work as its architects expected. The excessive rigidity of exchange rates, which is often singled out as the most important factor behind the system's eventual collapse, was largely the outcome of the national authorities' attempt to limit their own freedom of action so as to ensure the "credibility" of their policies (Eichengreen, 1996). That is, exchange rate rigidity was brought about by the (often unconscious) search for a dependable commitment technology — contrary to the belief, widespread in the postwar period, that constraints on "enlightened" domestic policy management should be avoided to the greatest possible extent (Dam, 1982). With the demise of the system of fixed exchange rates, the role of enforcer of policy announcements has come to be performed predominantly by the capital markets. Authorities have gradually come to realize that by liberalizing capital markets, both domestically and internationally, they would not only foster a better allocation of resources in the long run, but would also acquire credibility. At bottom, the various monetary reform strategies that have been tried over the last fifteen years or so in the industrial world — from central bank independence, to inflation targeting, to investing in anti-inflationary reputations — are all predicated on the assumption that there is a market out there watching what the authorities

[21] Another distinguishing feature of states is that they perform, alongside allocative and stabilization roles, a distributional function. As a consequence, they are better assimilated to financial intermediaries than to ordinary economic agents.

are doing (Cottarelli and Giannini, 1997). It is in this sense that one can say that today's international monetary system is market led (Padoa-Schioppa and Saccomanni, 1994). The recently much discussed proposal to add the goal of capital account convertibility to the IMF charter is no more than a way to formalize what is already a fact for an increasing number of countries.

The lack of an "objective" commitment technology for sovereign countries is often taken to mean that a strong market punishment, in the form of denial of access to foreign finance for an indefinite time after default, is the only deterrent against policy misdeeds.[22] But this risks being a gross oversimplification, hard to square with historical evidence, at least insofar as our century is concerned. In the aftermath of the debt defaults of the 1930s, for instance, the loss of capital-market access was hardly discernible (Eichengreen, 1991). Countries that continued to service their debts throughout the 1930s did not enjoy superior access to credit markets subsequently. For example, Cardoso and Dornbusch (1989), after surveying the borrowing patterns of Argentina and Brazil from the 1930s to the 1960s, conclude that the faithful repayer (Argentina) did not enjoy better capital market access than the less faithful Brazil. In a more rigorous econometric analysis conducted over 32 countries for the period 1945-1955, Eichengreen (1989) finds no evidence that the volume of external capital a sovereign borrower could obtain was negatively affected by its prior default. Indeed, going back to the 1930s, GNP and industrial production appear to have recovered more quickly in countries that defaulted than in countries that continued to honor their debts.[23]

This has probably much to do with a second implication of the notion of sovereignty, which is difficult to capture formally: unlike individuals, countries can undergo pervasive regime changes. Institutional reform or a change in the ruling coalition, by signaling a systematic change in policy, can and often does offset the reputational effects of prior actions, including default (Fishlow, 1989). In the nineteenth century, for example, returning to the gold standard was perhaps the clearest way to signal a change of regime. In our days, one could argue that this function has been taken over by the act of establishing independent technical authorities and by IMF conditionality. So, while market monitoring is needed ex ante to discipline the government's behavior, a long punishment by markets in the face of default may not be the socially optimal response. The correct answer is rather: it depends.

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[22] This is the typical result one gets by factoring the notion of sovereignty into an otherwise standard model of debt optimization. See Eaton and Fernandez (1995).

[23] See Eichengreen and Portes (1989).

Regime changes are more likely to occur in the aftermath of a major crisis because such an event tends to heighten awareness of the costs implicit in the existing policy and institutional framework.[24] Indeed, foreign exchange crises, whether or not they end in outright default, tend to be very costly. Eichengreen and Portes (1989) show for the 1930s that the supply of money, imports, and GDP growth all contracted more sharply in the countries that defaulted than in those that did not. In our times, the $50 billion rescue package that allowed the Mexican authorities to continue to service their debt did not avert a 6 per cent decline in real output in 1995 — Mexico's deepest recession in 50 years. In the case of Indonesia, Thailand, and Korea, as late as May 1997 the IMF *World Economic Outlook* forecast that real output would grow in 1998 by 7.5, 7.0, and 6.3 per cent, respectively. The latest forecast, published last October, indicate now for 1998 a contraction of about 15, 8, and 7 per cent, respectively. Moreover, the psychological and economic impact of a foreign-exchange crisis make sure that, in spite of the lack of international bankruptcy procedures, the "management" of the country hardly ever remains in office to see the crisis over.

*Credible* regime changes cannot happen overnight, however, because the probability of a set of reforms being carried through ultimately depends on the continuing support of the population. A mere declaration of intent will simply not suffice. The extent and persistence of such support will itself depend, however, on the population's estimate of the probability that the program will succeed and that the outcome will be in the individual self-interest of the average citizen (Johnson, 1997). Achieving and maintaining the necessary consensus is therefore likely to entail a continuous exchange of signals between the government and its constituency. Consequently, a credible regime change is better portrayed as a process, and an intrinsically fragile one, than as a single action.

The need for a regime change to take place in real time is the source of a number of complications for an international lender of last resort. Suppose the lender of last resort wanted to gauge the probability of the regime change being credible. Where could it look? Considering the country's fundamentals, while useful, would not be enough, as the existence of a political constraint might imply that the country stops being willing to pay far sooner than it reaches its technical ability to pay. It could then look at the country's past record in terms of policies, political stability, or compliance with surveillance exercises. But here again, the very definition of a regime change is that what has happened until the very moment such a

[24] The standard reference on the relationship between crises and reform is Olson (1982).

change takes place matters only up to a point. The only possibility left is to look at the extent of the reform the authorities are willing to commit themselves to and at the determination with which they are introduced and defended. However, the very determination with which the new government pursues its policies may undermine the consensus around the new policy course. If this is the case, it may be advisable to loosen up the new policy somewhat at the margins, rather than insisting on keeping it as it stands. But the international lender of last resort is not in a position to evaluate with the necessary precision whether such a modification of the agreed course of action is warranted. There is in fact a fundamental asymmetry between international organizations and domestic authorities, in that the latter are to a large extent the producers and guarantors of the information on which the assessment is to be based. A further complication of the existence of a political constraint is that, in deciding their strategies, foreign creditors of sovereign debtors will typically lack a well-specified outside option (namely, the liquidation value) to determine their own bargaining power (Eichengreen and Portes, 1995). Another important lesson borne out by recent crises is that the effectiveness of multilateral surveillance in a world where most information is produced locally depends crucially on the collaboration and provision of timely and transparent information by the authorities concerned. The upshot of all this is that, while a domestic lender of last resort can count on prior information (the supervisory track record) and can expect its decisions to be carried through whatever their content, an international lender of last resort is bound to act under a far more extensive veil of ignorance, and to remain exposed to the risk of a policy reversal until the implementation process has been pushed to the point where the cost of going back is so high as to make it irreversible for all practical purposes.

The combination of all these features, which are either non-existent or of only limited importance at the national level, appears to put international crisis management in a class of its own. The possibility of a regime change makes sovereign crises more manageable in principle, if a way can be found to sustain the credibility of such a change. At the same time, the inevitable complexities of political decision-making create the possibility of a self-fulfilling debt run, while the fundamental information asymmetry between national authorities, on the one hand, and multilateral organizations and private creditors, on the other, works against the creation of a climate of trust once a crisis emerges, and might even stand in the way of mobilizing public support for the government's program. A non-conflictual relationship between a sovereign debtor and its creditors (and of course international organizations) may further be hindered by the lack of an objective benchmark (the liquidation value) against which to establish the bargaining power of the two sides. Thus, while in a national context *timely action* is crucial for effective lending-of-last-resort, at the international level *gaining*

*time* before any irreversible action is taken, so as to permit a more thorough and less emotional assessment of the respective parties' options and payoffs, is likely to be a more important aim.

### *3.3 Protecting creditors or debtors?*

All national safety nets are biased in favor of creditors. As Herring and Litan (1995) remark, differences in the degree of formal protection notwithstanding, in practice the governments or central banks of all industrial countries (and perhaps of many others) have consistently shown a propensity to stand behind all bank deposits. The coverage of deposit insurance — be it explicit or implicit — has been gradually extended in this century as original systemic risk concerns (the need to avert bank panics) were supplemented by consumer protection considerations. We have seen in Section 1 that the moral hazard implicit in such a structure has been controlled — more or less successfully depending on the circumstances — through a blend of regulation, supervision, and outright punishment (the threat to close the bank or change its management).

This feature of domestic safety nets has been shared by recent international rescue packages. To be effective in restoring confidence in troubled financial markets, a rescue package must relieve investors of the risks they are trying to get away from. The main difference between the domestic and international contexts is that, since international markets largely fall outside the sphere of influence of any national authority, it may be difficult to make investors internalize the costs associated with the availability of this implicit form of insurance. Consequently, moral hazard tends to be a more serious problem at the international level.

But just how much more serious? Estimating moral hazard is a tricky task because of the difficulty of specifying the counterfactual, namely the costs that would have materialized had a rescue not been mounted. Moreover, it might well be that, even if some moral hazard were created, the overall effect of having a lender of last resort ready to intervene could still turn out to be positive, *since the total costs of a crisis cannot be taken as given.* After all, this is the argument usually invoked to justify *domestic* lending of last resort. Even allowing for these *caveats*, however, the emerging consensus is that moral hazard has in fact played an important role in the upsurge of capital flows in the 1990s (Goldstein, 1998; Krugman, 1998; IMF, 1998). It is not the size *per se* of such flows that bears this out: after all, a rapid increase in capital mobility is only to be expected in the aftermath of a shift from a regime of financial

repression to a more liberal one — and this is exactly what happened in a large number of countries in the 1980s. There are indeed grounds for believing that external capital flows have not yet matched the levels reached before 1914 (Eichengreen and Mussa, 1998). Moreover, the decline in world interest rates in the early 1990s clearly contributed to redirect international finance towards high-yield assets in emerging markets (Calvo, Leiderman and Reinhart, 1996). It is the combination of the dynamics, pricing, and composition of the overall flows that suggests that the moral hazard concern cannot be lightly dismissed.

A few facts are worth recalling in this respect. First of all, as a result of the Asian crisis, 1997 was the first year in the nineties to show a marked reduction in the net capital inflow to emerging economies (Figure 1). Up to then, even deducting direct investment, the most dynamic component, the annual inflow had been very large by historical standards and sustained, taking place in the context of a decline in the spreads on the debt of the emerging markets larger than that on other comparably rated instruments (Figure 2). It is worth noting, moreover, that the Mexican crisis led to only a modest reduction of such flows in 1994, and had no impact at all on spreads outside Latin America, as international investors quickly reallocated their portfolios away from this region and towards Asia and Eastern Europe. The total flow to emerging markets rebounded as early as 1995, when it increased by 20 per cent. Even the shift away from Latin America proved short-lived, as all the main countries in the region rapidly regained access to international capital markets and yield spreads returned to (and even below) their pre-crisis levels. Such a pattern is unprecedented. While on previous occasions there had been lending booms of comparable size, major international crises were typically followed by a generalized halt in capital flows for years to come — so much so, in fact, that scholars are left wondering why the market was unable to discriminate better between various classes of borrowers (Eichengreen, 1991). Nothing like that happened after the Mexican crisis.

The behavior of spreads *in the course of 1997* is also striking. After a temporary rise in the early part of the year, as a consequence of the increase in the US federal funds rate, yield spreads on emerging market debt rapidly resumed the downward trend they had been on ever since the Mexican crisis. Not even the floating of the baht, in July 1997, had a perceptible impact. This is partly due to the fact that the overall index is dominated by Latin American sovereign debt. However, developments in Asia did not deviate significantly from the general picture. In May 1997, for instance, with the baht under severe speculative pressure, spreads on Thai sovereign debt inched up by a mere 13 basis points, and only a further 3 basis points in the whole of June. Over the same period, spreads on Indonesian and

Korean sovereign and quasi-sovereign debt remained essentially unchanged, while for the Philippines they widened by just 6 basis points (Figure 3).

Finally, there is the composition puzzle. Figure 4, which contrasts the pattern of capital flows into Latin America and Asia in the 1990s, neatly shows how international finance underwent a veritable mutation in the process of being redirected to Asia. Interbank flows, which had been negligible in 1993 and negative in 1994, surged to account for about 25 per cent of the total inflow in both 1995 and 1996. The flow of interbank funds to Asia, as became known later, served to feed the now notorious *carry trade*. In a typical carry trade, banks borrowed in the international interbank market in dollars or yen, converted the proceeds into local currency, and then on-lent in the local currency short-term interbank markets, until the funds finally reached the local final users.[25] The carry trade became popular in 1992, and continued to be highly profitable right through to the third quarter of 1997, when the crisis broke out.[26] The subsequent retrenchment of interbank lending goes a long way towards explaining the intensity of the East Asian crisis. This composition shift may have been accidental, but it may have reflected a greater perception of uncertainty surrounding emerging markets as a result of the Mexican crisis, and therefore a desire by investors to be able to get out of the market quickly if necessary. However, the concomitance between the upsurge in interbank lending and the appearance of the G10 Report on the Resolution of Sovereign Liquidity Crises — which was widely read as suggesting that certain classes of foreign claims could be granted a privileged status in future crises — is striking, to say the least.[27] Moreover, the Basle Capital Accords may have had the unintended effect of encouraging interbank lending, since they mandate only a 20 per cent risk weighting for short-term interbank exposures to non OECD countries, while exposures over 1 year have to be

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[25] There were also other techniques, all involving some degree of maturity mismatching. For a description, see IMF (1998).

[26] Using data on Thai banks, the IMF estimates that the carry trade generated a higher spread than investing in mature markets in 18 of the 20 quarters up to mid-1997 (IMF, 1998). The returns even increased in the second quarter of 1997, at the time of the speculative attack, since yields increased while the exchange rate of the baht was not allowed to depreciate. With the collapse of the baht, returns to both carry trades turned sharply negative.

[27] The Report was very explicit in ruling out large-scale rescue operations of sovereign debtors in the future. However, a few passages suggested that such a stance might not be water-proof. At the outset, it is factually remarked that *"trade credits and interbank lines are essential for retaining commercial and economic links with the world economy, they have so far been excluded from most sovereign workout arrangements"* (p. 6); later on, a normative twist appears in the text: "*it may no longer be possible to exempt bonds and other claims because of their increased importance. Each case will have to be considered on its merits, taking account of the fact that trade credits and interbank credit lines are crucial for maintaining links with the world economy"* (p. 21).

weighted at 100 per cent. The lower weight, it should be noted, does not apply to short-term corporate loans or bonds.

*Per se*, there is nothing wrong in capital flows taking the form of interbank lending rather than portfolio investment. However, interbank transactions tend to be highly informal, often not going beyond the stage of verbal agreements. Consequently, as events in Asia clearly brought out, assessing overall risk exposures may prove hard when such transactions account for the bulk of cross-border lending. Moreover, short-term interbank claims are by their very nature highly liquid and easily reversible, and these features tend to encourage herding behavior on the part of lenders. Indeed, the size and rapidity of the turnaround that took place in net interbank flows in the final months of 1997 were unprecedented, with total interbank lending in the crisis-stricken countries shifting from an inflow of $40 billion to a net outflow of $30 billion (IMF, 1998).

Overall, there thus appear to be good grounds for believing that moral hazard should be given a prominent place in any account of what went wrong in international financial markets in the 1990s. At the same time, it is not clear that this moral hazard can be blamed entirely on the "excessive" guarantees implicitly provided by local authorities, as suggested by Paul Krugman (1998). There may well have been an "overborrowing syndrome" — as McKinnon and Pill (1997) have labeled it — in emerging economies in recent years. All arguments heavily emphasizing local guarantees, however, run up against the difficulty of explaining how sophisticated international investors could be made to believe in such guarantees when they knew that the countries' external liabilities were mostly denominated in *foreign* rather than *domestic* currency. Hence, at least to some extent, moral hazard must have been created abroad, not locally. Levy Yeyati (1998), for example, has shown that limited liability and generous deposit insurance in developed economies may be sufficient to push international banks into investing an excessive portion of their funds in high-yield/high-risk projects, which are generally more plentiful in emerging markets, in the rational attempt to maximize the value of the option implicit in the deposit contract. If Krugman's hypothesis seems to explain too little, however, Levy Yeyati's explains too much, since limited liability and deposit insurance are long-standing features of the industrial countries' domestic regulatory setting. In all probability, a combination of these two apparently rival hypotheses — one that emphasizes both the inadequate preparation of financial liberalization in recipient countries *and* the inability of lender countries to provide their internationally active institutions with appropriate incentives — will be needed to make sense of the unprecedented pattern of capital movements in the 1990s.

The widespread feeling that moral hazard is an important component of the international environment also explains the prominence given in recent discussions to the issue of involving the private sector in the handling of foreign exchange crises (Goldstein, 1998; Eichengreen, 1998; Group of Twenty-Two, 1998). The issue is often broached as one of achieving a "more equitable burden-sharing" between international creditors — which, after all, are in most cases institutions specialized in processing information, and not innocent bystanders — and debtor countries, which for their part already bear the burden of IMF conditionality. This, however, may well prove misleading. When resources have been misallocated, the question of who was responsible in the first place is of little economic relevance. What matters is that the misallocation be dealt with in the least-costly way, and with the least recourse to third-parties', i.e. ultimately taxpayers', money.[28] The issue of moral hazard is logically distinct from that of ensuring equitable burden-sharing, although there may be a connection. Moral hazard reflects the interaction of the behavior of both borrowers and lenders. To reduce it, therefore, it is not logically necessary that both lenders and borrowers bear the cost of crisis resolution, or that all lenders suffer equally. The real issue is rather whether, by involving the private sector, the overall costs associated with foreign-exchange crises can be reduced, either by smoothing out the crisis resolution process, or by reshaping the incentives under which private institutions operate.

The way the Korean crisis was handled could be cited as a case in point. That is, one could argue that the participation in December 1997 of foreign banks in the rollover operation sponsored by the G10 authorities — which effectively brought that crisis to a halt — offers a model of how burden-sharing should work. There are grounds, however, for a less benign interpretation. The delay with which the rollover strategy was assembled made it possible for banks holding short-term interbank claims to leave the market unscathed or significantly reduce their exposure. As a matter of fact, given the size of the overall turnaround in interbank lending — about $70 billion in net terms, as already mentioned — it would be hard to argue that only "marginal" lenders were allowed to leave the market. Moreover, the rollover strategy was accepted by the banks only after the won had already lost 50 per cent of its value and the G10 authorities had announced that they would speed up the disbursement of $10 billion of the overall rescue package. By then, therefore, the risk international banks

[28] More specifically, moral hazard reflects the interaction of the behavior of both borrowers and lenders. To reduce it, therefore, it is not logically necessary that both lenders and borrowers bear the cost of crisis resolution, nor that all lenders suffer equally. Indeed, the historical record suggests that the burden tends to be borne mainly by debtors irrespective of the international financial regime. See Eichengreen (1991) for a discussion of the empirical literature on this issue.

would take by rolling over their claims had been greatly reduced. At that point, individual banks could even gain from switching to a cooperative strategy, as they would not be required to put up new money while acquiring a "claim" on the crisis resolution process. All that was needed, once that stage had been reached, was some arm twisting by the authorities to overcome what had become a pure coordination problem.

It is still too early to know whether this is a correct description of what happened during the Korean crisis.[29] For sure, as one commentator has recently put it, expecting the private sector to contribute substantially to crisis resolution is like "asking the icebergs to save the Titanic".[30] The whole configuration of world financial markets — with its expanding set of highly competitive and unregulated intermediaries — invites skepticism on the possibility of establishing spontaneous arrangements that presuppose a lot of cohesion and goodwill on the part of lenders. Indeed, in view of the declining importance of concerted lending in industrial countries highlighted in Section 2, one cannot help wondering why something that is increasingly difficult to achieve domestically should be feasible internationally. Containing moral hazard at the international level is therefore likely to remain the key challenge for the years ahead.

## 4. International lending of last resort: looking for a middle course

The main message of the previous section is that the extension of lending-of-last-resort practices to the international domain encounters severe problems. The availability of resources, even allowing for the coming into effect of the XI quota increase and the NAB, is likely to remain insufficient to attain the purpose of a rapid restoration of confidence during major crises. Conversely, if resources were to be significantly increased, past experience as well as theoretical considerations suggest that the crisis manager would be likely to see its technical discretion curtailed. This is all the more likely to happen since it is generally hard *ex ante* to assess at all accurately the probability of success of the overall package, which is likely to involve wide-ranging policy changes that will take time and political determination to come to fruition. The effect would be either a politicization of the lender of last resort's

[29] It should be noted, however, that it does not appear to be rejected by the income statements released in the course of 1998 by a number of internationally-active banks, since they show sizable losses only in connection with off-balance-sheet exposures (IMF, 1998).

[30] See the article by Stephen Fidler titled "Ward for contagious diseases" in *Financial Times*, 6 October 1998.

decisions, or a significant loss of flexibility and, ultimately, effectiveness in the conduct of its business. Moreover, the issue of containing moral hazard is far from settled. True, considerable progress has been made over the past few decades on the debtor side, with the development of the twin notions of surveillance and conditionality. However, a prerequisite for the effectiveness of both tools is that individual countries perceive they have an interest in cooperating with the international enforcer. In this respect there is a major difference between the international domain and the domestic context, where the lender of last resort can rely on a complex regulatory structure that gives force to the threat of "punishment". Moreover, the problem of moral hazard on the creditor side lies largely beyond the reach of the lender of last resort, since it is related to the degree of protection creditors receive in their home country. In order to protect its resources, the international lender of last resort would thus have to rely on the actions of other actors, namely the industrial countries' domestic authorities, over which it has very little leverage — a very uncomfortable situation, which domestic lender of last resorts have consistently tried to avoid throughout their history.

These considerations help make sense of the less-than-satisfactory performance of international rescue packages in the last couple of years. They also help to explain why a number of countries, such as Chile and Malaysia, have preferred to protect themselves from financial instability through unilateral recourse to capital controls. In the long run, however, such a response appears self-defeating. The move away from capital controls was not by chance, or of sheer technological progress. Rather, it was primarily a response to two deeply-felt needs that the Bretton Woods framework met only imperfectly, if at all: first, for a better allocation of resources worldwide and, secondly, for a mechanism to strengthen the credibility of domestic policy-making. Even if it proved technically possible to set the clock back, as it were, reinstating reliance on controls as the rule rather than the exception, it remains unclear how this could be reconciled with reasonably fast growth and sound domestic policy-making. Thus, there appears to be ample scope for exploring middle-course solutions — working on the assumption that the leave-it-to-the-market option simply does not exist. This is the task to which I turn below.

### *4.1 Is regional crisis-management an option?*

With universal lending of last resort unlikely to be forthcoming, and concerted lending impractical in most circumstances, a natural alternative would seem to be some form of *regional* lending of last resort.

That is, one could envisage a world in which this function would be discharged either by a recognized hegemon within a given area, or by an area-wide, cooperative institution explicitly endowed with lending-of-last-resort faculties. An obvious structure would be one in which each of the three main trading blocks — Asia, the Western Hemisphere, and Europe — looked after financial stability in isolation, each block in its own way, tailored to local traditions and existing practices and institutions.

Regional lending of last resort has three advantages over universal lending of last resort in principle. First of all, geographical proximity, insofar as it can be taken as an indicator of economic integration, tends to strengthen perceptions as to the social (that is to say, area-wide) cost of inaction in the face of a crisis. Mustering sufficient resources is thus likely to prove less troublesome. Secondly, the number of countries involved being by definition smaller, it may be easier at the regional level to win consensus as to both the need for concerted action and the form that it should take. Moreover, since relations between the states in the area will normally go beyond purely financial matters, it might also prove easier to devise country-specific forms of compensation for joining in the collective lending of last resort effort.[31] Finally, relatively deep-rooted cultural ties — which again can be expected to be the natural outcome of proximity — may provide a favorable terrain for the establishment of an "epistemic community", namely of a *"professional group that believes in the same cause-and-effect relationships, truth tests to accept them, and shares common values, so that its members show a common understanding of a problem and its solution"* (Haas, 1990, p. 55). Epistemic communities have been shown to be important factors behind many recent success stories in the field of international cooperation (Milner, 1992). Indeed, the swap network developed by G10 central banks in the early 1960s around the Bank for International Settlements can be seen as an early example of an area-wide, though by no means regional, lending-of-last-resort structure (Helleiner, 1994).

The first advantage is probably by far the greatest. For all the talk of globalization, much of today's trade remains regional rather than truly global. In fact, the growth of intra-regional trade flows is probably the distinguishing feature of the remarkable increase in overall world trade in the last two decades or so. The flourishing of area-wide trade initiatives, such as the Single Market, Apec, NAFTA, can itself be viewed as reflecting this

[31] Such compensations would act, in Mancur Olson's (1982) terminology, as a *"selective incentive"*, encouraging countries to stick to the cooperative equilibrium. On the importance of selective incentives, see also Milner (1992).

underlying trend. Indeed, the pressure of economic integration can be so strong as to push beyond a regional lender of last resort, towards full-fledged monetary union. Eichengreen (1996), for one, has forcefully argued that monetary union in Europe can be viewed as a response to the *"ineluctable rise in international capital mobility"*, which risked undermining, by the attendant increase in exchange rate volatility, intra-European trade flows and the very possibility of pursuing domestic objectives. The economic rationale of monetary union, in a nutshell, is that *"relatively large, relatively closed economies are able to pursue domestic objectives without suffering intolerable pain from currency swings"*.

Thus, regional lending of last resort should be seen as an option both for countries in the process of transition to monetary union and for others, which, while recognizing their common interest in exchange-rate stability, even to the point of being ready to peg the external value of their currency unilaterally, are not yet in a position to contemplate a total surrender of monetary sovereignty.

Defined in this way, regional lending of last resort has two shortcomings, however. No matter how strong the trade links, and how well-developed cooperative initiatives in the trade field, designing a credible structure for lending-of-last-resort purposes is likely to be tricky. If countries are unwilling to contemplate surrendering monetary sovereignty altogether, either as an immediate option or over a more distant horizon, it must be because they want to retain some autonomy for their domestic economic policies. Since assembling a rescue package is likely to entail, at least in the short-run, some deviation from the pattern of domestic policies otherwise deemed desirable in some of the countries in the area, the effort's outcome is bound to remain highly uncertain. This can be seen as no more than a variation on the control issue evoked in the previous section. The importance of the concern is underscored by two recent pieces of evidence. The first, and probably the foremost, is the ERM crisis of 1992-93. Lack of economic convergence certainly played a major role in straining the European multilateral peg, in the same way as it had strained the Bretton Woods exchange-rate system back in the early 1970s, but there is now a broad consensus that the scale and persistence of the crisis can only be explained by invoking an element of self-fulfilling behavior on the part of market investors, which could have been dealt with had core countries been willing to provide more extensive lender of last resort services for the area as a whole (Eichengreen, 1996). What makes the European experience all the more remarkable, is that the failure to organize an effective area-wide defense against speculative flows took place in the context of an otherwise highly advanced process of institutional, and even political, integration.

A further example is provided by the failed US attempt, in early 1995, to assemble an all-American rescue package to deal with Mexico's problems. The problem with the initiative, as later became clear, was that it could not be funded sufficiently through recourse to the Exchange Stabilization Fund, which was at the immediate disposal of the US Treasury. Consequently, the package required congressional approval. Intense behind-the-scenes consultations in Washington made it clear that this could not be taken for granted. Announcing a rescue package without the certainty that Congress would make the necessary appropriation involved great political risks, which the US authorities were understandably unwilling to take. Thus, the all-American plan was dropped, in favor of an orchestrated IMF package, in which the United States had a stake roughly equivalent to the sums available in the Exchange Stabilization Fund.[32] Again, it is noteworthy that the episode did not take place in an institutional vacuum, as it were, but in the context of a deep political commitment, both in Mexico and in the USA, to NAFTA.

There is a second shortcoming to regional lending of last resort, however. Geographical proximity may increase awareness of the social cost of inaction to the point of making "regional" authorities overemphasize financing to the detriment of adjustment. With conditionality gone, debtor countries' moral hazard might loom large. Now, even though the "region" may form a relatively closed economic block, the risk of contagion through purely financial channels can hardly be exaggerated in the present world of global capital. As recent experience shows, especially after Russia's unilateral suspension of debt service, there is nothing to check against *global* spillovers of *regional* regulatory and policy failures. This was perhaps the main objection to the attempt made in the early months of the Asian crisis by some countries in the area to organize a $100 billion regional emergency fund, to be known as the Asian Monetary Fund. The initiative was announced by the Japanese finance minister during the IMF/World Bank meetings in Hong Kong. Nothing was said at the time about how the Fund was to operate or, in particular, about the conditions that would be attached to individual rescue packages. After the other G7 countries had made it clear that they would go along with the initiative only if the IMF were involved, the plan was soon dropped — which looks like implicit confirmation that it had more to do with avoiding conditionality than with fund-raising.

The moral of all this is that a regional lender of last resort is unlikely for the foreseeable future to provide the answer to the problem of sustaining international financial

[32] See Fraga (1996) for a detailed account of the vicissitudes of the US plan.

stability. At most, elaborating on the Japanese idea for an Asian Monetary Fund, one could envisage a number of regional pools of resources to be activated exclusively for countries belonging to the region. To be viable, however, such a structure would need to be designed and managed in a coherent manner, according to a unique code of conduct. In the trade field, there are those who argue that the trend towards regionalism is made more acceptable by its occurring in the context of an ever stronger global institutional set-up, represented by the WTO and the procedures for conflict-solving over which the latter presides. In such a context, regionalism can be interpreted as but one layer within a multi-layered, but internally coherent, institutional framework (Lawrence, Bressand and Ito, 1996). While trade coordination is desirable, but not strictly necessary, since each region could benefit from liberalization even if all the other regions kept their trade restrictions in place, it appears to be vital in finance, where the potential for contagion across regions is far bigger. The outcome of leaving each region to decide the rules according to which lender of last resort services should be provided may well prove to be a system of destructive — rather than constructive — ambiguity, which would work in nobody's interest.

### *4.2 Voluntary vs non-voluntary arrangements*

Lending of last resort is a form of implicit insurance against the risk of illiquidity. If implicit insurance can be expected to work only imperfectly in an international context, why not try *explicit* insurance? The latter could take the form, for example, of an option-like contract giving the borrowing country the right to access extraordinary sources of financing should pressure develop in its own foreign-currency market. Since such an agreement would be voluntary, the premium could compensate the writers for the risk they run.

Schemes of this type are being experimented in Argentina and Mexico. In 1996, Argentina reached an agreement with 13 foreign commercial banks, according to which the Argentine central bank can swap peso-denominated government securities for US dollars up to about $7 billion. The average commitment fee is 33 basis points, and the rate charged in case of drawing is 200 basis points above LIBOR. The most interesting feature of the facility is the absence of a no-adverse-material-change clause permitting banks to recede from the agreement in the event of a crisis. However, drawings are subject to margin calls if the price of the collateral falls by more than 5 per cent. If the fall exceeds 20 per cent, the additional margin must be paid in US dollars. Moreover, creditor banks may suspend the facility in case of a sovereign default. The Mexican contingent scheme is instead a simple overdraft facility, granted jointly by 31 foreign banks for an overall amount of about $3 billion.

Neither facility has actually been used to date, so it is difficult to evaluate their effectiveness under stress conditions. Their structure, however, raises a number of questions. Can the market be expected to provide *enough* insurance, given the nature of the event that is being insured against? Moreover, suppose the market was reacting correctly to an imbalance in the country's fundamentals: would the facility still be beneficial to the country itself and to the international community at large in that case?

Clearly, neither the Argentine nor the Mexican arrangement is "large" in comparison with the latest rescue packages. But it is not so much the size of the resource pool that is questionable, as the mechanics of the facility itself. First of all, the existence of margin calls implies that in case of large price swings, which clearly cannot be ruled out given the type of event these countries are trying to insure against, the arrangement could very well end up by unwinding itself. Perhaps more importantly, the banks participating in the arrangement might well wish to hedge their exposure. For example, when called to provide "additional" finance under the arrangement, they may start selling short government securities. If they choose to do so, the overall amount of foreign finance available to the borrowing country will remain unchanged. But the main weakness of these arrangements is their very automaticity. The liquidity they supply is totally unconditional. Thus, there is nothing in the scheme to guarantee that the authorities will undertake any needed corrective measure while drawing. Even though the terms of the program are subject to periodic revision, the record of the market in the surveillance business suggests that the facility might be used to delay needed policy adjustments.[33] Overall, therefore, there are grounds for being skeptical about the effectiveness of purely-private contingent arrangements of this type. As they stand, they can certainly help authorities to contain minor pressures, and in this respect they might be of great value in reducing contagion effects. When the erosion of market confidence is particularly serious, however, they can rapidly run into trouble, and under certain conditions even become counterproductive, insofar as they lull domestic authorities into believing that the crisis can be overcome without prompt and determined action.

The natural alternative to a voluntary liquidity-enhancing facility would be a contingent arrangement that worked out of coercion. Litan et al. (1998) have suggested, for example, that borrowing countries should pass legislation contemplating a mandatory

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[33] This is consistent with the view that what justifies the existence of international organizations is really their comparative advantage with respect to the market as monitors, not as lenders (Rodrik, 1995; Guitián, 1992). More of this below.

reduction ("hair-cut") of the principal of foreign currency loans that are not rolled over in the event of a crisis. Creditors would not be prevented from leaving the country, but would be imposed a loss for doing so. However, the mere announcement that a country was considering such a move would likely trigger a rush for the exits. It is unlikely that any country would be willing to take the chance. At the very least, no country will want to be the first to pass such legislation for fear of sending the "wrong" signal to the market. Thus, the suggested "hair-cut" makes sense only as an emergency measure to be applied once the crisis has already started. At that stage, however, partial solutions may not be sufficient, and may even aggravate the panic.

A more extreme coercive measure — which however does not suffer from this weakness — would be a moratorium on foreign payments. This possibility was envisaged after the Mexican crisis in the G10 Report on the Resolution of Sovereign Liquidity Crises, which acknowledges that:

> *a temporary suspension of debt payments by the debtor may be unavoidable as part of the process of crisis resolution and as a way of gaining time to put in place a credible adjustment program* (Group of Ten, 1996, p. i).

This view has now been revived and developed in the report of the G22 working group on international financial crises:

> *in some circumstances, a purely voluntary approach may be impractical. In particular, it might consume so much time that it would lead to an erosion of confidence that would be contrary to the collective interest of creditors and debtors in a cooperative and equitable workout* [...] *In those extreme case where a temporary suspension of payments cannot be avoided, experience indicates that a disorderly workout is against the interests of debtors, creditors and the international community* (Group of Twenty-Two, 1998, p. x).

With a view to facilitating the handling of such situations, both Reports strongly recommend the introduction of contract clauses that would make it possible to coordinate the actions of bondholders, in particular through collective representation, majority voting, and sharing procedures. They also call on the IMF to extend and perfect a practice initiated in the late 1980s, which consists in providing (limited) amounts of finance to countries which have been accumulating arrears towards their private creditors, ahead of an agreement with the latter (this practice is known as "lending into arrears").

When the idea was first put forward, in 1996, it did not receive a good reception. Market participants quickly prepared a counter-report, published in September of the same year, where the G10 recommendations on moratoria and lending into arrears were called "misguided", on the ground that they would face enormous implementation problems and, if implemented, would fuel moral hazard on the debtor side.[34] Nor did the Report appear to convince the IMF. The invitation to reflect on the matter went unheeded until January 1998, well after another string of crises had brought the issue to the fore again. Even this late review, moreover, ended on a rather skeptical note, on two grounds. First, the practice of lending into arrears had been experimented in situations where the bulk of the creditors consisted of commercial banks. If bond contracts predominated, as was the case in Mexico in 1994, the IMF staff feared that the practice could engender disorderly reactions on the part of creditors. Here, there is an important distinction to be drawn between domestic and international bonds. Clearly, a moratorium on domestic bonds need not give rise to significant litigation, since it would amount to interrupting the legal validity of outstanding claims — be they sovereign, non-sovereign, or both, depending on circumstances. International bonds, by contrast, are subject to the jurisdiction of the courts in the country where they are issued, and normally contain comprehensive waivers of sovereign immunity, so that in principle the risk of litigation is not negligible. A further concern was that the international organizations' endorsement, implicit or explicit, of a moratorium would constitute such a major departure from consolidated practice as to risk triggering a chain reaction. Recently, the IMF has shown a more benign attitude towards the whole issue of moratoria, as testified by the Managing Director's report to the October 1998 meeting of the Interim Committee. However, the concern that an uncoordinated recourse to moratoria could lead to chaos has if anything strengthened by the turmoil that followed the Russian decision to resort to this option in August 1998.

Before discussing in greater detail whether moratoria could be made more orderly, or even avoided altogether, it is worth clearing up a misunderstanding that arose after the Mexican crisis and that seems to have stayed with us ever since. Moratoria are not an embryonic international bankruptcy system, nor are they intended to be. Rather, they are a pragmatic option predicated precisely on the assumption that an international bankruptcy system is not feasible, and perhaps not even desirable. As Eichengreen and Portes (1995) have aptly remarked:

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[34] See Institute of International Finance (1996).

> *an international court or tribunal with powers analogous to those enjoyed by bankruptcy courts in the United States is a non-starter, given the very great legal obstacles to implementation. If such obstacles were to be surmounted, the desirability of such a procedure remains unclear. Even operating under a treaty, such an international court would be unlikely to possess the powers of a national court to enforce seizure of collateral, given sovereign immunity. It would not be able to replace the government of a country the way bankruptcy courts replace the management of firms. The danger of moral hazard would be great* (p. xvi).

The heavy reliance on the terminology of bankruptcy in Group of Ten (1996) — which the drafters of that Report possibly took over from Jeffrey Sachs' earlier suggestion to create, by analogy with the US legal system, an international bankruptcy court (see Sachs, 1995) — may have been an important factor behind the coldness with which the Report's main recommendations were received. Arguably, a better analogy to what the Report was suggesting would have been the practice — common in many countries before the advent of central banks — of suspending the convertibility of bank deposits in the presence of a run. The country where this measure was adopted most frequently is the United States, where in pre-Fed times convertibility was suspended eight times (Sprague, 1910). The suspension of convertibility was clearly a breach of contract, to which banks resorted to stem depositors' uncoordinated runs to currency. Yet, while understandably causing public uproar, such action rarely caused much legal reaction.

With full information, suspension of convertibility would clearly be hard to justify. But information asymmetries are arguably a constituent feature of the financial environment, and, as we saw in the previous section, there is every reason to believe that this problem becomes even more serious when countries are concerned. Moreover, the risk of a run is magnified in this case by the lack of a clear "liquidation" value for the country's assets. When these conditions prevail, it may be rational for investors to panic, acting on the basis of some noisy but nonetheless meaningful indicator. At the same time, the suspension of convertibility may be the rational course of action for the debtor since the latter, who by definition enjoys superior information, is thus afforded the time to signal to creditors that the continuation of the relationship may be mutually beneficial (Gorton, 1985).

There are a number of difficulties to be overcome, however, before the analogy could be considered an appropriate guide for action. First, in the case of banks, suspension allows creditors to discriminate better between "good" and "bad" banks; the presumption was that the latter will never resume convertibility, and will be closed down. By contrast, the decision of the sovereign is typically unilateral, and may hide the intention not to address the structural

problems that are likely to have triggered the run. If this were indeed the case, the risk of contagion would loom large. Secondly, after suspending convertibility, a bank can go about the rest of its business for a while without much external pressure, since, being a financial intermediary, it does not need interim liquidity. This is clearly not the case with countries, which are typically brought to suspend external payments in situations where they still need foreign money to finance a budget or current account deficit. Recourse to suspension therefore makes sense only if a source of interim finance can be found, to keep the country "afloat" until full convertibility is restored. Thirdly, it is not obvious to what extent the analogy can be extended to situations where it is not a sovereign debtor to come under pressure, but domestic corporations or banks. Finally, the absence of extensive litigation in the nineteenth century when banks suspended convertibility was at least partly related to the attitude of the courts, which generally exercised a large amount of forbearance, thereby discouraging angry depositors from suing. Such a smooth process can hardly be expected to prevail in our times. Thus, resorting to sovereign suspension presupposes finding instruments to facilitate the resolution process. Let us examine each of these questions in turn.

### *4.3 The IMF as a confidence-enhancing mechanism*

Before delving deep into the issue of moratoria, it is useful to recall some changes that have already taken place in the nature of the IMF's business. The institution, as we have seen in Section 3, was entrusted at Bretton Woods with a conceptually simple task: to protect the fixed exchange rate system through the provision of adjustment-smoothing finance. Article I.v states that one of the fundamental purposes of the organization is *"to give confidence to members by making the general resources* [...] *temporarily available* [...] *under adequate safeguards"*. Two things are worth emphasizing in this passage. "Confidence" is to be given to countries, not to their lenders (since capital mobility was expected to be restricted). Moreover, access to adjustment-smoothing finance would not come cheap, since it would be made conditional on the existence of "adequate safeguards" — the origin of the notion of conditionality that was later derived.

This is basically the framework within which the IMF operated until the breakdown of the exchange-rate mechanism in the early 1970s. With the switch to flexible exchange rates, the Fund's mission was somehow left hanging in the air. This inevitably entailed a certain loss of legitimacy, and *"an accompanying perception of increased IMF obtrusiveness"* (Guitián, 1992, p. 25). A legal fix was eventually found with the Jamaica amendment of the Articles, which gave the IMF a new mission — that of administering the "code of conduct" laid out in

the newly-drafted Article IV with the aim of *"assuring orderly exchange arrangements and promoting a stable system of exchange rates"*.

At first, this legal change did not mean much in terms of how the IMF was perceived, especially in developing countries. As a matter of fact, the outbreak of the debt crisis in the early 1980s probably marked the lowest point in IMF popularity (James, 1996). Then, starting in the late 1980s, something changed. An increasing number of countries began to realize that in a world of increasing capital mobility the IMF could play a useful role as provider of credibility, beside and even above the more traditional role of lender of resources. This change in attitude in the countries tapping the IMF is brought out by three pieces of evidence. First, the share of net IMF credit over total net external financing (including foreign direct investment) to developing countries dropped from 4.5 per cent during the 1980s to less than 1 per cent in the period from 1990 to 1996. Secondly, there has been a rapid increase in recent years in the number of so-called precautionary programs, i.e. of programs undertaken without the immediate intention of drawing. As of end-1996, about one-third of the stand-by and EFF arrangements fell in this category. Finally, while the ratio between actual and potential borrowing in all outstanding IMF arrangements — excluding those off-track — has declined since the early 1980s, reaching an historical low, the number of countries with an IMF program has risen to all-time peaks (Figure 5). The message of all this is fairly simple: the IMF stamp of approval has been used by an increasing number of countries to enhance the authorities' credibility in association with adjustment programs predicated on the availability of private international finance. That is, the IMF has gradually shifted, for a large part of its membership, from providing confidence to *governments* to providing confidence to the *markets* that were supplying the finance needed for the success of the governments' policies.[35]

The upshot of these considerations is that as a result of these tendencies the IMF has already developed the means, and to a large extent the skills, to sustain the credibility of member countries in adverse circumstances. This does not mean that the role of credibility provider, or of confidence-enhancing mechanism, has been played by the IMF in the best possible manner in all possible circumstances, and in this respect recent crises have certainly

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[35] There are striking similarities between these developments and those that marked the advent of the notion of central bank independence. This notion, too, was "invented", back in the 1920s, by creditors eager to protect their resources (mainly the restoration loans arranged by the League of Nations). This is why the independent central banks set up at the instigation of the League of Nations came to be heavily resented in the borrowing countries, eventually proving, without exception, short-lived. Acceptance of the notion had to await the dismal inflationary experience of the 1970s, which effectively showed that an independent monetary authority could be in the country's — not the foreign creditors' — best interest. See Giannini (1995).

taught a number of lessons.[36] Nonetheless, that there is a growing demand for the credibility services of the IMF among its membership appears undeniable. The issue is really whether and to what extent this demand can be met to make foreign-exchange crisis management a smoother process than it is at present.

There seem to be two possible ways — not mutually exclusive — to tackle this problem. The first can be labeled the "carrot" solution; the second the "stick" solution. The carrot solution would consist in trying to buttress voluntary anti-crisis arrangements so as to make resort to a moratorium in the face of foreign-exchange turbulence unnecessary, or at least more remote. We have seen that these arrangements presently suffer from two major weaknesses: they are unlikely to withstand major foreign-exchange pressures; they are automatic, and therefore might lead the government to postpone adjustment. The first weakness could be overcome by changing the incentive structure under which banks participating in the arrangement operate. This could be done in many ways. One option has recently been experimented by the World Bank, which on November 10 approved a $500 mln Special Repurchase Facility Support Loan in favor of Argentina. The purpose of the loan is to ensure banks participating in the Argentine contingent facility that, if the price of the collateral fell by more than 5 per cent, the central bank would have an additional source of funding to meet the relative margin call. The main drawback of this solution is that it amounts to a hidden subsidy in favor of private creditors, whose freedom of manoeuvre, including the possibility of hedging their exposure, is otherwise left unaffected.

Arguably, a better, and more transparent, way of encouraging private creditors would be for the international financial organizations to waive their *de facto* superior seniority in favor of those creditors willing to advance finance under stress conditions. The principle that an insolvent firm can raise new financing that is senior to outstanding debt subject to the agreement of the court forms an integral part of the US, as well as other countries', bankruptcy code. Moreover, the waiving of seniority finds an analogy, in the domestic context, in central banks providing uncollateralized liquidity in exceptional circumstances. Something similar would happen if option-like agreements of the kind being experimented in Argentina and Mexico were explicitly linked to contingent credit lines provided directly by, say, the IMF itself. If this were the case, private creditors would be encouraged to enter into

[36] Another area in which there seems to be room for improvement is that of programs aimed at disinflation, for which the notion of a balance-of-payments need, traditionally the *raison d'être* of IMF programs, is inappropriate. See Cottarelli and Giannini (1998).

the private contingent line since they would know that whatever drawing the country effected would be based on a *pari passu* clause with the IMF, while whatever repayments were made would analogously be shared with the IMF on a *pro rata* basis.

Both options can be seen as contravening the "adequate safeguards" principle enshrined in the Articles, all the more so since the guarantee provided to private creditors, either explicitly or in the form of higher seniority, inevitably involves some risk of moral hazard. But this need not be the case, if contingent credit lines are linked to an IMF program featuring the appropriate degree of conditionality. Such an association also appears desirable to cure private credit lines of their second weakness — a bias in favor of financing, to the detriment of adjustment. Combining conditionality with the provision of incentives aimed at nudging private creditors into a more cooperative stance might very well reduce moral hazard compared with the situation today, by rendering the prospect of a moratorium — arguably the riskiest option from this perspective — less real.[37]

The alternative to the "carrot" is obviously the "stick". It would consist in a more or less explicit endorsement of a country's recourse to a temporary moratorium by the international community, along the lines envisaged in both Group of Ten (1996) and Group of Twenty-Two (1998). In a more extreme version, the declaration of a moratorium could be made a precondition for accessing IMF resources, an option that neither of these reports contemplates explicitly. As already mentioned, whatever form it is to take, this option presupposes that the IMF, and perhaps other international financial institutions as well, be willing to use lending into arrears, since moratoria do not eliminate the need for a lender of last resort, they only reduce the scope of its responsibilities.

Unlike traditional lending of last resort, however, lending into arrears, by giving the country in distress the means to afford, as it were, a moratorium, tends to run against the creditors' immediate interests. That is, lending into arrears by definition is confrontational in a way that traditional lending of last resort has never been. It therefore raises the issue of its impact on creditors' litigiousness; thereby, on the program's chances of success and, ultimately, on the IMF's resources. The risk is that aggressive litigation on the part of

[37] A similar view has recently been put forward by Goldstein (1998), who argues that recourse to moratoria, by setting a higher systemic risk threshold before the international community intervenes, could significantly reduce moral hazard. It should be noted, however, that existing option-like arrangements give creditors the faculty to suspend the facility in case of sovereign default. Thus, absence of a moratorium is a pre-condition for the facility to work.

creditors, involving extensive seizure of assets, could effectively prevent balance-of-payments adjustment, and thus derail the whole program.

When lending into arrears took its present form, in the late 1980s, litigation did not prove to be a major problem: creditors generally did not resort to legal remedies and a number of agreements were reached within a reasonably short time after the Fund's announcement that it would support the debtor, notwithstanding its arrears. But at the time the creditors were primarily commercial banks, and national central banks played an important role behind the scenes in encouraging them to accept a cooperative settlement. As already remarked, such degree of forbearance cannot be expected of all creditors — certainly not of bondholders in general. Indeed, investment fund managers and other similar financial agents are likely to have a fiduciary obligation to customers to make the most of their holdings of distressed securities.

The risk that the declaration of a moratorium could be followed by prolonged and heated litigation is therefore a serious one, even though its precise contours will depend on the circumstances. The assets of a sovereign debtor are not easily attached, unless they are held abroad and the sovereign has waived its immunity as part of an international bond issue. But waiving sovereign immunity has become common practice in several important financial centers (Eichengreen and Portes, 1995). As to non-sovereign debtors, the declaration of a moratorium on their debt amounts to a suspension of the country's bankruptcy law. Consequently, foreign creditors would not be able to apply to the national courts. They would, however, be able to attach assets located in foreign jurisdictions, and one can easily imagine the emergence of "vulture" intermediaries specialized in buying cheap distressed debt and then suing the issuer for the face value.[38] A worst-case scenario would also need to contemplate the possibility that the IMF, having endorsed the moratorium, or even made it a precondition for initiating a program, might be dragged into the litigation.[39]

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[38] See Miller and Zhang (1997) for a formal analysis of the impact on the valuation of sovereign debt of the existence of "vulture" firms of this type. The risk associated with disorderly moratoria is well epitomized by the decision of the UK courts to accede to Lehman Brothers' request to seize the UK bank accounts of Inkombank, Russia's second largest depository institution, in the aftermath of the Russian moratorium.

[39] A cautious experiment with managed moratoria is now under way in Ukraine, where the IMF appears to have made the suspension of payments to foreign bondholders a precondition for continuation of the program. See "IMF places Kiev in default dilemma", in *Financial Times*, 5 October 1998, p. 2.

These risks could be averted only if the international community had a legal means of temporarily suspending not only the country's foreign payments but also the creditors' legal rights. As the word suggests, a certain amount of coercion is indispensable for the "stick" solution to be feasible. But how is such coercion to be legitimized? The obvious place to look is in the IMF Articles of Agreement. As mentioned in Section 3, Article VI.1(a) empowers the Fund to require that a member impose controls on the outflow of capital as a condition for the use of its resources. In turn, Article VIII.2(b) states that:

> *exchange contracts which involve the currency of any member and which are contrary to the exchange control regulations of that member maintained or imposed consistently with this Agreement shall be unenforceable in the territories of any member.*

Invoking Article VIII in its present form to justify a moratorium, however, would require some measure of "creative" textual interpretation. For instance, the IMF Board could clarify that the expression "exchange contracts" is to be interpreted as encompassing credit agreements. Interpreted in this way, Article VIII would make claims arising from sovereign default temporarily unenforceable following a decision in this sense by the Board. It is debatable whether this would really settle the matter, however. Rule-bending may be acceptable in dealing with sovereign entities that find the expanded interpretation in their own interest. It can hardly be expected to be watertight when it involves private creditors that might take their case to a perhaps unsympathetic national court. Hence, if moratoria are to be added to the international toolbox for dealing with foreign-exchange crises changing the language in Article VIII appears highly advisable. This could be done, for example, in the context of a general revision of the Fund's mandate as regards the capital account. By giving the IMF responsibility for fostering capital mobility, a clear signal would be sent to the financial markets that the latter are seen to perform an important function both in the allocation of resources worldwide and in disciplining domestic economic policies. At the same time, by explicitly contemplating moratoria as a policy tool, to be used only as an *ultima ratio* expedient and in the context of a strong adjustment effort, the authorities would make it clear that there was no reason to believe that international financial markets were immune from the imperfections that have prompted the development of an extensive regulatory framework at home. To reduce moral hazard on the debtor side, appropriate language could be found to convey to member countries that activation of lending into arrears would be tied to each member's past surveillance record and, in particular, to the degree of compliance with the code of conduct enshrined in the Articles, including the appropriate sequencing and preparation of capital account liberalization. This would arguably encourage members to

follow sound economic policies, possibly with the help of an IMF program, even when they did not need resources for immediate balance-of-payments purposes, thereby strengthening the credibility of the IMF as a confidence-enhancing mechanism. Within this approach, surveillance would increasingly acquire the function supervision already has in a domestic context — that of allowing the lender of last resort to evaluate the good will of the distressed debtor and to decide accordingly which of the instruments at its disposal to use.[40]

## 5. Conclusion

Well-functioning financial markets are conducive to a more efficient allocation of resources, greater risk diversification and, through their continuous monitoring of governments' actions, better economic policies. *Unfettered* financial markets are unlikely to deliver these goods, however, mainly because of informational imperfections. Thus, a certain amount of government intervention is a precondition for financial markets to work effectively. This, in essence, was the discovery made — through painful experience — at the national level in the first decades of this century. It led to a three-pronged response comprising *ex ante* measures (regulation and supervision), a crisis management structure (built around the lender of last resort) and *ex post* arrangements meant to facilitate the liquidation of insolvent financial firms.

The globalization of capital has left no alternative to facing the issue of how financial markets' malfunctionings can be prevented better, and their consequences contained more effectively, at the international level. With *ex ante* and *ex post* measures relatively underdeveloped beyond national borders and slow to adapt, the challenge has been mainly

[40] Calomiris (1998) has recently pushed this argument to the point of suggesting that IMF members should be pre-selected on the basis of a set of regulatory and macroeconomic criteria. Compliance with these requirements would automatically make members eligible for unconditional liquidity support. The proposal, however, has several drawbacks, all deriving from the automaticity of the underlying mechanism. First, the experience of industrial countries over the last two decades shows that compliance with rather general requirements is no guarantee against the risk of regulatory failures. Second, the very decision to drop the country from the list of eligible members would risk triggering a crisis — a risk no lender of last resort would ever incur. Third, when the crisis erupts, it could prove socially desirable to provide liquidity assistance even to countries that failed to meet requirements *ex ante*, provided they followed the right policies thereafter. Conversely, *past* compliance is no guarantee of *future* compliance, i.e. after liquidity assistance has been provided. Indeed Calomiris' proposal hinges on the assumption that it is possible to distinguish between liquidity and solvency problems — an assumption that, as I have tried to show in this paper, seems unwarranted in a national context, let alone when sovereign countries are concerned.

met, under the pressure of a number of unprecedented financial crises, by extending the coverage of lending-of-last-resort operations.

This has been achieved by invoking Bagehot's *dictum* that a lender of last resort should *"lend freely to illiquid but fundamentally solvent institutions, at penalty rates and on good collateral"*. Bagehot's doctrine, however, is a poor description of current national practices. What makes lending of last resort effective at the national level, I have argued in the paper, is neither the distinction between illiquidity and insolvency, nor reliance on the provision of unlimited penalty-rate liquidity. Rather, it is constructive ambiguity, a complex notion whose main components are: uncertainty as to whether liquidity support will be forthcoming, discretion regarding the conditions attached, pervasive *ex ante* supervision, and extensive enforcement powers.

These features hardly seem replicable at the international level, for a number of reasons. First of all, reconciling ready resource availability and technical discretion as to when and how to use such resources is extremely difficult — because there is no hard-and-fast way to overcome the control problem such a mixture raises. The larger the resource pool, the greater the risk that the main contributors will want to deprive the crisis manager of the technical discretion needed to fine-tune liquidity support packages and contain moral hazard. The ultimate risk is that of increasing politicization, with resources ultimately being used, with very little ambiguity, in the interest of the stronger members rather than the collective interest. As a consequence, in the long run it could prove hard for the crisis manager to sustain its legitimacy. A further problem is related to the fact that, when dealing with sovereign countries, the risk of policy reversals after last-resort lending has taken place cannot be disregarded. That is, the lender of last resort has limited enforcement powers. As a result, it will have to ration its liquidity support and rely on the continuous collaboration of the debtor. Finally, while a national lender of last resort has, through the special body of legislation regulating the banking business, at least some control over the legal claims of the ultimate creditors, i.e. depositors, international creditors are largely beyond the reach of international organizations. To contain moral hazard on the creditor side, the crisis manager would therefore need to rely on the cooperation of the authorities located in creditor countries, over whose behavior, however, it cannot be expected to have much leverage.

Any satisfactory solution to the problem of coping with international financial crises has to provide an answer to all three of these open questions. Partial answers are simply no answer at all. Regional lending of last resort and concerted lending could in principle provide

alternatives to a universal, and centralized, lender of last resort. Both, however, suffer from major weaknesses in the present context. In a world of globalized financial markets, regional lending of last resort exposes the whole system to regulatory failures in one or more regions. Concerted lending, for its part, appears incompatible with the highly competitive climate of today's world financial markets, and is therefore likely to prove unfeasible in most circumstances.

A number of far-reaching proposals to address the problem have recently appeared in the literature, ranging from Calomiris' (1998) and Sachs' (1995) suggestion that the IMF should be transformed into a full-fledged lender of last resort, willing to provide unconditional liquidity to countries satisfying certain criteria *ex ante*, to Schwartz's (1998) argument that it is now time to abolish the IMF altogether and let the market work. In this paper, I have argued in favor of a more modest, but seemingly more practical, course, in which priority would be given to efforts to develop contingent liquidity facilities in which the private sector would take an important stake and to improve work out arrangements in the presence of moratoria on foreign debt service. This approach, while forcing international investors to embody the risk of sovereign default in the terms they charge their foreign customers, leaves open the possibility of a limited lending-of-last-resort role in the form of IMF lending into arrears, along the lines first envisaged in the G10 Report on the Resolution of Sovereign Liquidity Crises in 1996 and now endorsed by one of the three G22 reports on the international financial architecture. It also appears consistent with the tendency over the past twenty years or so to enhance the role of the IMF as a signaling, or confidence-enhancing, device and simultaneously downplay its role as lender — though the latter clearly remains of crucial importance for countries whose access to capital markets is still limited, or nil. An approach that attached greater weight to the possibility of temporary moratoria would not necessarily be market-unfriendly. This would clearly not be the case, for instance, if moratoria were credibly circumscribed to being a last-resort measure, to be used to facilitate creditors' coordination only when all other options — including private contingent facilities partially backed by the public sector — had failed, and to the extent that the country concerned was making a strong effort to adjust.

To this end, however, a change in the fundamental charter governing international monetary relations — the IMF Articles of Agreement — appears indispensable, for at least two reasons. First, because endorsing moratoria without at the same time authoritatively stating that a reasonable degree of freedom in the allocation of capital represents one of the fundamental aims pursued by the international community would encourage member

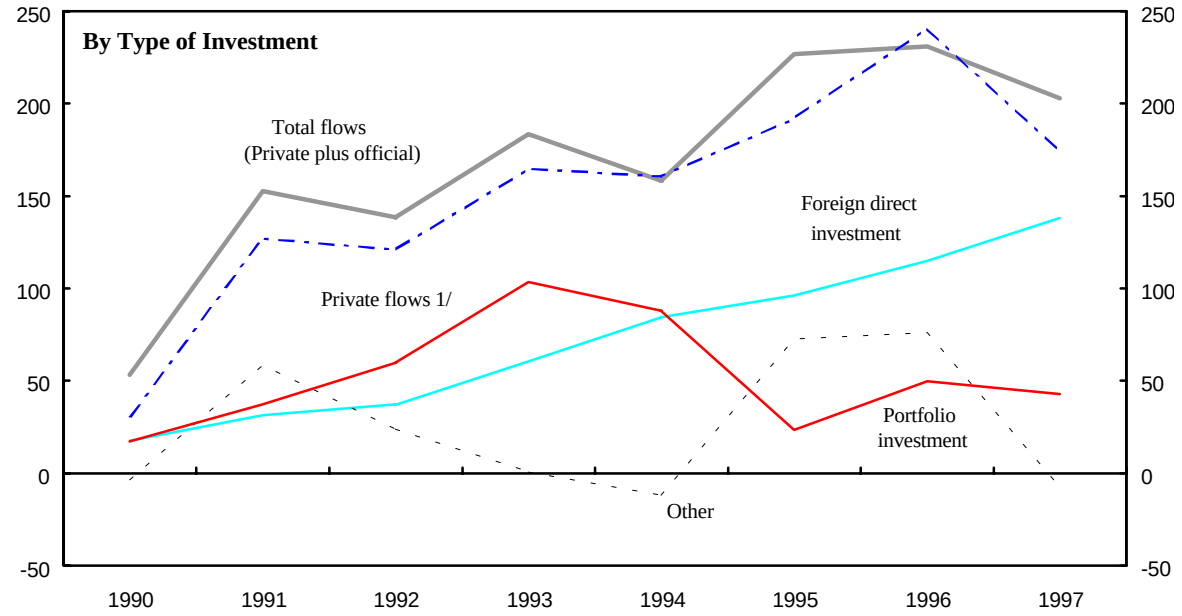
countries to reverse whatever progress they had made towards capital account liberalization, and even to contemplate a return to the Bretton Woods regime of all-encompassing capital controls. Secondly, because the handling of moratoria, without amending the Articles to legitimize a suspension of creditor rights in the presence of good-will efforts at adjustment, could very well prove a messy business, and even risk dragging the IMF and possibly other international financial organizations into legal disputes. Accordingly, I have suggested that the possibility of temporary moratoria be made explicit through a change of language in Article VIII, to be made in the context of a broader revision of the Articles aimed at giving the IMF responsibility for encouraging appropriately sequenced but nonetheless extensive capital account liberalization.

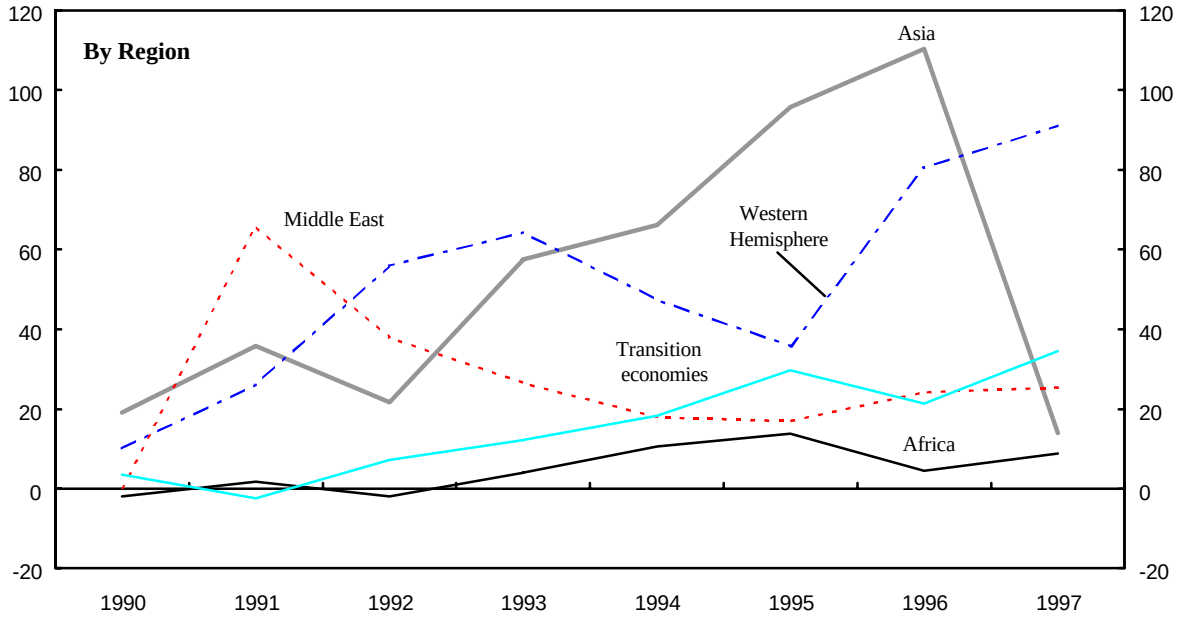
Some see little prospect of amending the Articles of Agreement in this way. This was clearly the view of the G22, which dismissed the possibility as politically unfeasible, and, among academics, of Eichengreen (1998). The latter has suggested instead amending national legislations on sovereign immunities to make it easier for countries to resort unilaterally to temporary moratoria. It is not clear, however, why the countries where the main financial centers are located, notably the United States and the United Kingdom, should find it politically more palatable to grant a blanket immunity to sovereign debtors — which, moreover, have voluntarily chosen to waive it in order to attract foreign finance — than to accept a coordinated, and overall more creditor-friendly, international mechanism to deal with sovereign arrears. More generally, if the relatively modest move of changing Article VIII should really prove unfeasible, it is hard to see how the far more ambitious goal of establishing a moral-hazard-free lender of last resort at the world level could ever be achieved.

It may be worth emphasizing that redefining the role of the IMF along the lines suggested above need not imply ruling out international bail-outs altogether. Indeed, in certain circumstances helping a country through a foreign-exchange crisis may be highly desirable, economic objections notwithstanding. However, it would appear advisable, in keeping with national practices, to leave responsibility for politically-motivated rescues to governments, so as to protect both the legitimacy and the resources of the technical agencies placed at the center of the international monetary system. This was the choice made by the Bretton Woods architects. In retrospect, it does not appear to have been unwise.

## Figures

Figure 1. Net Private Capital Flows to Emerging Markets, 1990-97
(in billions of U.S.

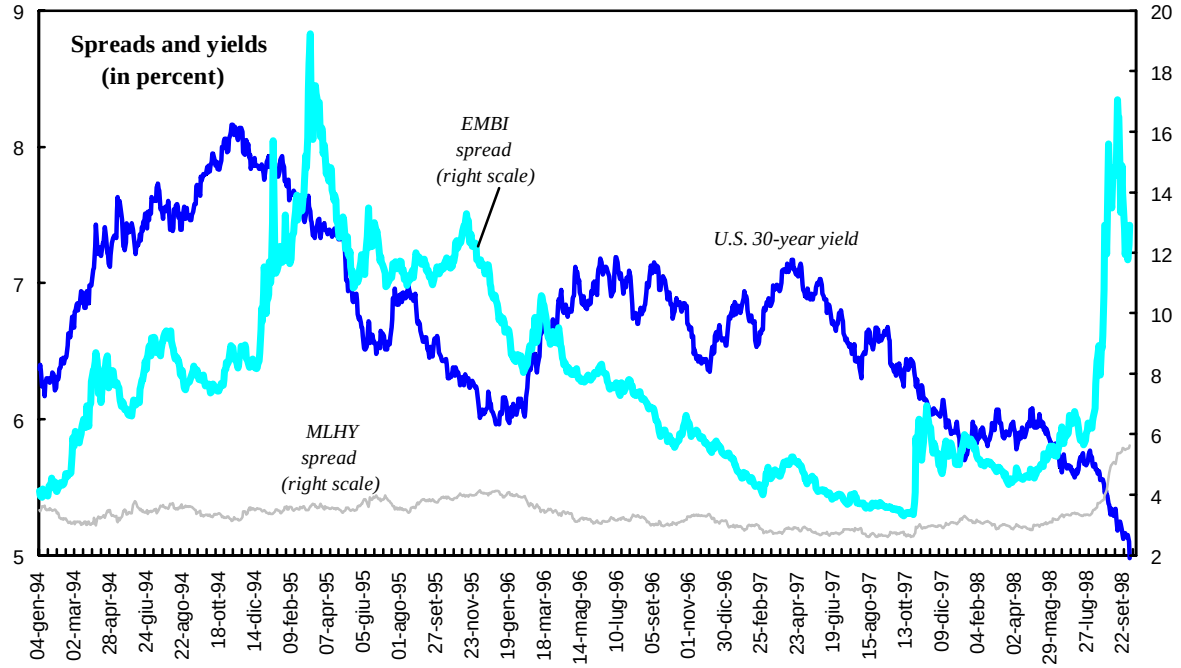


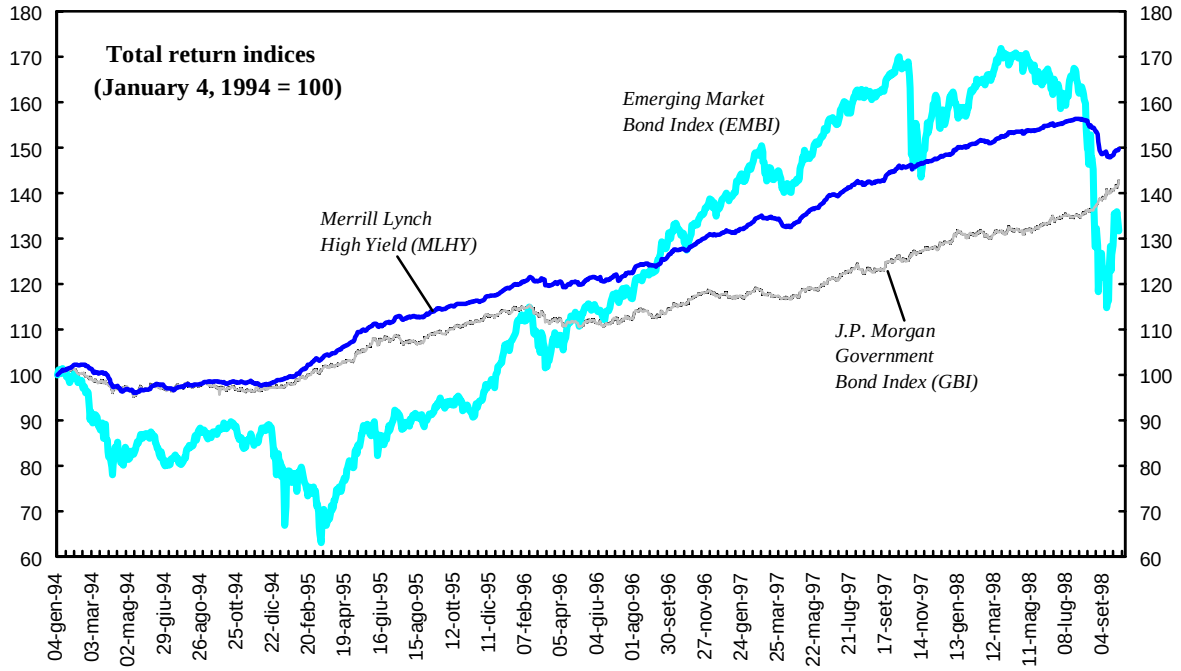




Source: World Economic Outlook (WEO) Database.

1/ Total net private capital flows equal net foreign direct investment plus net portfolio plus net other investment.

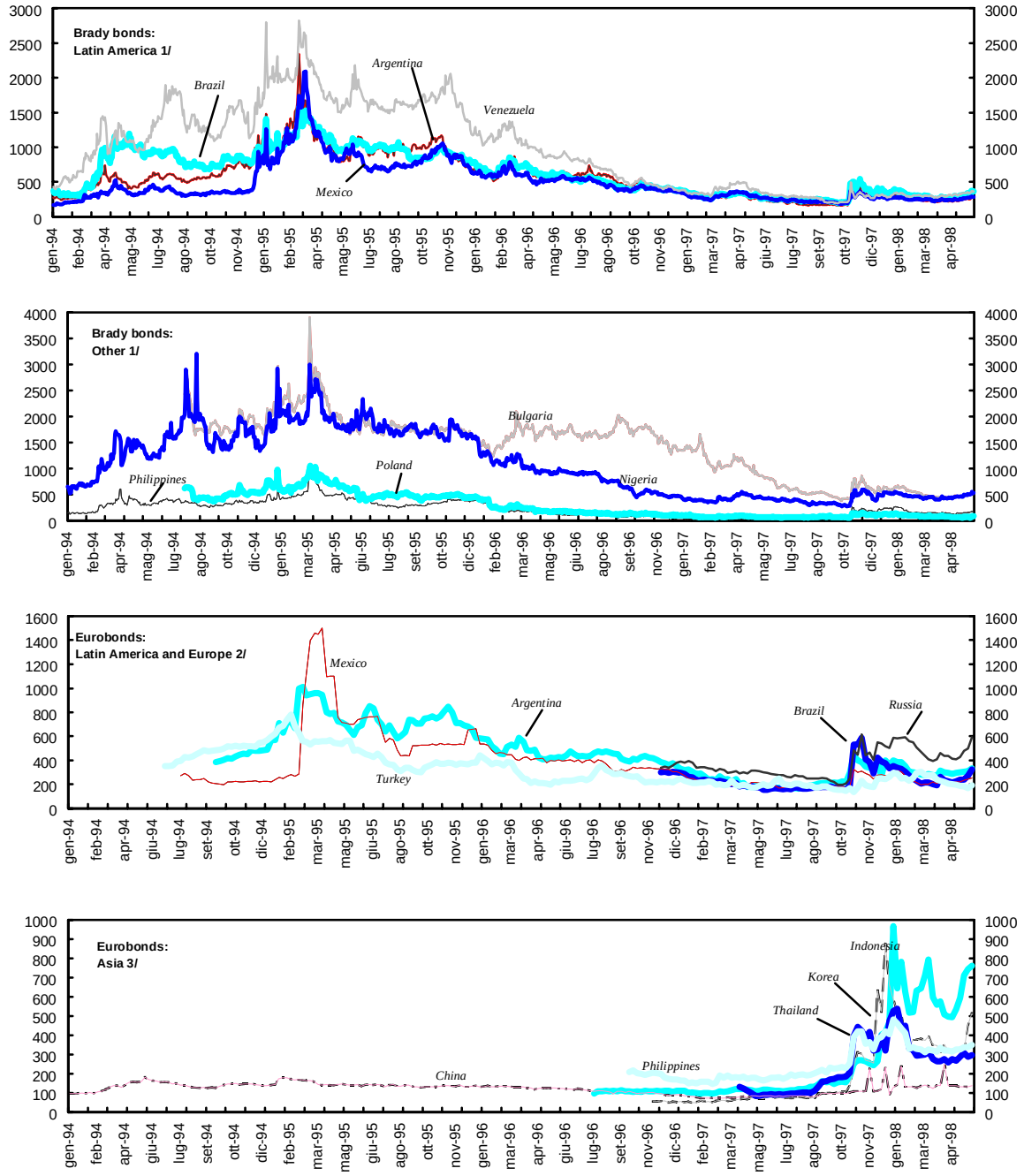
Figure 2. Bond Markets: Selected Returns, Yields, and Spreads
(January 4, 1994 - September 30, 1998)




Source: World Economic Outlook (WEO) Database.

Figure 3. Yield Spreads for Selected Brady Bonds and U.S. Dollar -Denominated Eurobonds
(in basis points)



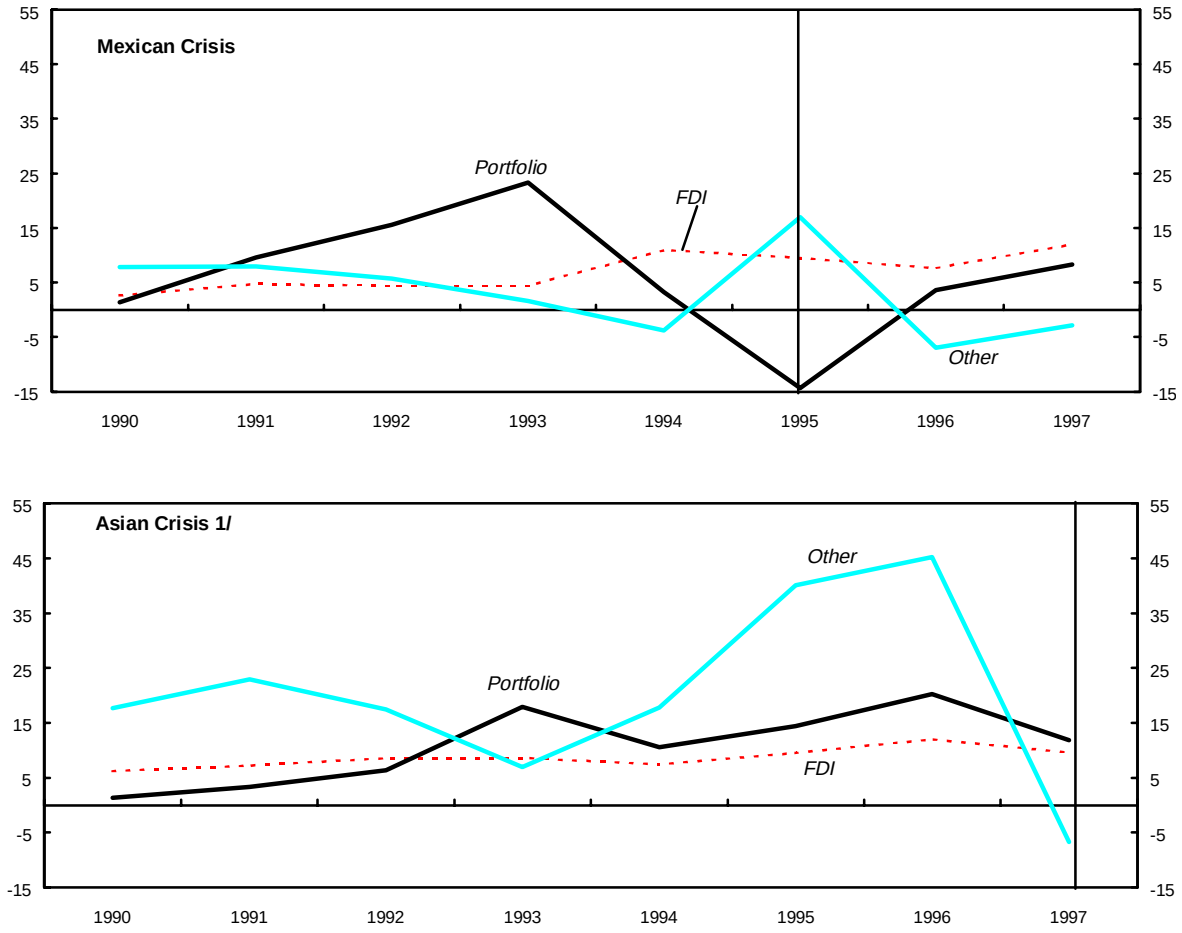

Sources: Bloomberg Financial Markets L.P.; Salomon Smith Barney; and IMF staff estimates.

1/ Yield spreads on Brady bonds are "stripped" yields.

2/ Latin America and Europe: Republic of Argentina bond due 12/03, Republic of Brazil bond due 11/01, United Mexican States bond due 9/02, Ministry of Finance of Russia bond due 11/01, and Republic of Turkey bond due 6/99.

3/ Asia: People's Republic of China bond due 11/03, Republic of Indonesia bond due 8/06, Korea Development Bank bond due 11/03, Republic of Philippines bond due 10/16, and Kingdom of Thailand bond due 4/07.

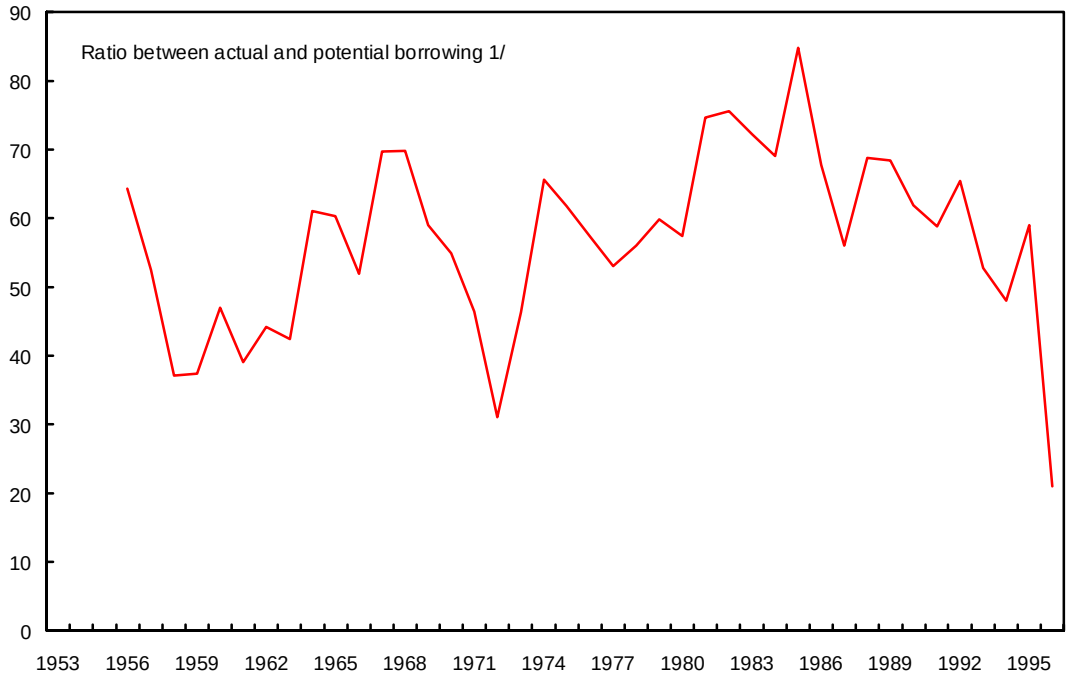
Figure 4. Composition of Private Capital Flows
(in billions of U.S. dollars)

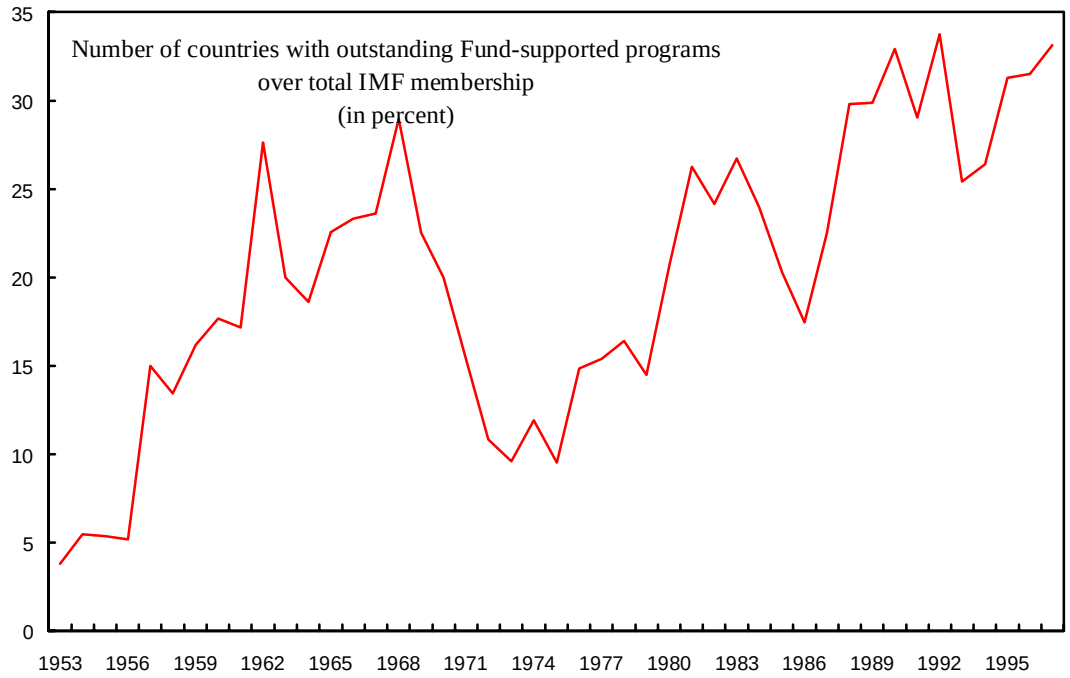



Source: World Economic Outlook (WEO) database.

1/ Aggregate flows to Thailand, Malaysia, Indonesia, Korea, and the Philippines.

Figure 5. Transactions of the Fund
(in percent)




Sources: IMF Annual Reports, 1955-97; and Transactions of the Fund, 1997.

1/ The figures refer to the outstanding amount borrowed from the Fund at the end of the program over the maximum amount that could have been borrowed, for all programs that started in the reference year and ended by December 31, 1997. The drop registered in 1996 is likely to overstate the actual decline as it was computed over the more limited number of programs that started in 1996 and were completed by 1997.

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