
Myths and Metaphors

Debates about the causes of recent currency crises, the policy responses to them, and the reform of the international financial architecture have raised complex issues. Too often, however, the issues and options are posed in unduly simplistic ways.

Consider the debate about the Asian crisis. Some blame it primarily on creditor panic and argue that the crisis could have been resolved without requiring the Asian countries to alter their policies or reform their institutions. Others blame it on fundamental flaws in the policies, practices, and institutions of the Asian countries and argue that policy changes and structural reforms were essential.

Furthermore, there is disagreement among those who interpret the Asian crisis as a creditor panic. Some believe that confidence could have been restored by large-scale official financing; they claim that the seemingly large amounts supplied by the IMF and others were too small and were doled out too slowly. In the future, they say, the IMF should act more like a “lender of last resort” to end a creditor panic. Others argue that confidence could have been restored by inducing panicky creditors to pause, reflect, and recognize that they would be better off staying than fleeing if all of them did that together. But they go on to disagree about whether that result would be best achieved by relying on persuasion or on coercion.

Complex issues have also arisen in the ongoing debate about private-sector involvement in the resolution of future crises. To distinguish between possible forms of private-sector involvement, academics and officials alike often invoke the seemingly straightforward distinction

between a liquidity problem and a solvency problem. A liquidity problem is said to require temporary financing or, at most, rescheduling of a country's debt, because the country's impending debt payments are too large to be met in full, given the country's current earnings and its liquid assets. A solvency problem is said to require a reduction of a country's debt, because a mere postponement of impending debt payments will not suffice when the whole stream of future payments looks to be too large.

But the solvency of a country is far harder to judge than the solvency of a company. It calls for determining the most appropriate way to divide a country's real resources between debt service payments and domestic use. That judgment has economic dimensions but must, in the end, be left to the country's own political process.¹ When a country is deemed to be solvent, moreover, it should presumably be able to borrow in order to meet its impending debt payments. If it cannot do that, one must ask why not. Have capital markets seized up? Or do potential lenders entertain doubts about the country's solvency—its ability or willingness to meet its future obligations?²

The tendency illustrated by these examples—basing strong policy advice on simple binary classifications—has infected the debate about exchange rate policy. Shortly after the European Monetary System (EMS) was beset by the currency crisis of 1992-93, Barry Eichengreen (1995) drew the obvious lesson from that crisis: pegged but adjustable exchange rates are not viable when private capital is highly mobile. It is inexpensive to make large bets against them, and it can be very costly to defend them against speculative attacks.³ Eichengreen therefore predicted that countries would move inexorably to more flexible exchange rates or to monetary unions. His prediction, however, was quickly converted into a prescription. Countries *must* move to one of two corners. They have either

1. See, e.g., Tarullo (2001), who goes on to explain why it would be virtually impossible to design a bankruptcy regime for sovereign debtors, even one modeled on chapter 9 of the US Bankruptcy Code, which deals with municipal bankruptcies; see also Rogoff (1999).

2. Eichengreen (2000a) seeks to sort out these issues by attributing solvency problems to "bad" fundamentals that call for policy changes and attributing liquidity problems to creditor panics, but this taxonomy is misleading. Solvency problems typically arise when feasible improvements in a country's fundamentals cannot be expected to release enough domestic resources to service the country's debts. Another simplistic distinction is drawn by the G-7 governments. They concede that it may be impossible to deal with solvency problems without recourse to coercion but imply that liquidity problems can normally be resolved by voluntary market-based arrangements between a debtor country and its foreign creditors. We will return to this matter in subsequent chapters.

3. The same point was made much earlier, after the collapse of the Bretton Woods system in the early 1970s, and it was made again in the European context by Padoa-Schioppa (1988), even before the EMS crisis; he warned that the abolition of capital controls required by the Single European Act would force the EMS countries to choose between greater exchange rate flexibility and monetary unification.

to adopt flexible exchange rates or to fix their exchange rates firmly. By forming regional monetary unions, converting their central banks into currency boards, or replacing their national currencies with other countries' currencies—the solution known as formal dollarization.⁴

This chapter looks at these matters more closely in an effort to lay out clearly the issues and options that are too often simplified excessively by invoking analogies, metaphors, and myths. It focuses on three issues: the use and abuse of IMF conditionality, whether the IMF should serve as “lender of last resort” to its member countries, and the debate about exchange rate regimes. In the process, it touches on other controversies: whether an interest rate defense should be used to combat a creditor panic, whether prequalification can replace conditionality, and whether contingent credit lines can replace precautionary drawings on the IMF. It also examines the main recommendations of the Meltzer Report. But one of the issues mentioned in this introduction, the problem of private-sector involvement, will be deferred to subsequent chapters, because of its central role in the architecture exercise.

Culpability, Confidence, and Conditionality

Assume for the moment that the Asian crisis was due largely to creditor panic, not to the policies and practices of the Asian countries.⁵ Was there no need to modify those policies and practices? Was the Fund wrong to insist that the Asian countries adopt the orthodox remedy for a currency crisis—tightening their monetary and fiscal policies? Was the Fund wrong to insist that they embark on far-reaching reforms during the crisis itself?

The answer resides in the rationale for conditionality. It is not meant to punish countries for their past mistakes. It is meant to make sure that countries adapt to current conditions and can therefore repay the Fund

4. Eichengreen has also moved from prediction to prescription, but he does not rule out various ways of managing flexible rates; see, e.g., Eichengreen (1999b). Some others, however, who take this approach to the choice of exchange rate regime rule out all “intermediate” arrangements, not merely pegged but adjustable rates; the only viable options, they say, are free floating or hard fixing.

5. This is the stand taken by Radelet and Sachs (1998, 2000). For a formal model of a currency crisis caused by a creditor panic, see Chang and Velasco (1999), who adapt to an open-economy setting the well-known bank-run model of Diamond and Dybvig (1983). Like Radelet and Sachs, moreover, Chang and Velasco argue that “orthodox” policies are not needed to combat a creditor panic and that conditionality can be counterproductive. (They are especially critical of fiscal conditions that, they say, can lead to two equilibria. A good equilibrium is reached when a government holds down its budget deficit to meet its commitment to the IMF and can then use IMF money to finance the acceptable deficit. A bad equilibrium obtains when the government fails to hold down its deficit and the IMF withholds funding; the fiscal problem is aggravated not only by the large size of the deficit itself but also by the lack of IMF money with which to finance it.)

in a reasonable time. In other words, conditionality is forward looking, not backward looking. It is concerned with sustainability rather than culpability.⁶ What, then, is the role of conditionality in the case of a creditor panic? If it were possible to restore the status quo ante by providing large-scale official financing or causing panicky creditors to pause, reflect, and decide to start lending again, there would be no need for the crisis-stricken country to make any policy changes. Capital outflows would cease, and capital inflows would resume. But it would be foolish to bet on this ideal outcome. Capital outflows may cease, but capital inflows may not revive right away and they may not return to precrisis levels for a very long time.

There are two reasons to take this view. First, creditor panics do not occur spontaneously. They may reflect unfounded fears, but these may take time to subside. Second, creditor panics can do grave damage when they are not halted immediately, and some of that damage must be repaired before capital inflows will resume. In the meantime, the crisis-stricken country will have to reduce its current account deficit and may even have to run a surplus in order to rebuild its reserves and pay down its debt to the IMF. And that's where conditionality comes in.

Furthermore, creditors' fears are not always unfounded. They are not caused by "sunspots" of the sort that inhabit economists' models. In many cases, including the Asian case, they reflect plausible concerns about the sustainability of the status quo ante and the quality of precrisis policies. The change in creditors' views about the Thai economy was due in large part to the very visible problems of the Thai banking system. The spread of the crisis to neighboring countries was due in part to the realization that they, too, were vulnerable. Creditors panicked, so did debtors, and the resulting crisis confirmed their worst fears. In this sort of situation, policy changes must be made, if only for the purpose of restoring confidence and undoing the damage done by the crisis itself.

The Fund's Precarious Strategy

Unhappily, the strategy adopted by the Fund was built on precarious suppositions. It assumed that policy changes and structural reforms would be implemented promptly and restore confidence quickly, so that capital outflows would cease. On this assumption, moreover, modest amounts of up-front financing would suffice to achieve and sustain exchange rate stability. This strategy would work if everything went right and these suppositions were therefore fulfilled, but it was apt to fail if anything went wrong—and something was bound to go wrong. That's Murphy's

6. I have made the same point elsewhere in a different context. A country that suffers a terms-of-trade shock has to adjust to the shock although it bears no blame for it; see Kenen (1986).

Law. If governments procrastinated, and they did, the restoration of confidence would be delayed, and it was. And if confidence was not restored quickly, capital outflows would continue, and the amounts of official financing would be too small to keep the Asian currencies from depreciating further.⁷

A number of critics go on to argue that the Fund's insistence on far-reaching structural reform during the crisis itself made matters worse by convincing panicky creditors that the Asian crisis was the result of deep-seated structural flaws that had to be corrected promptly; otherwise, the Asian economies could not begin to recover.⁸ The Fund was right to insist that some things be done quickly. Insolvent banks had to be closed or recapitalized, and plans to deal with corporate debts had to be devised, even if they could not be implemented speedily. But in calling for other reforms, such as removing restrictions on the foreign ownership of domestic banks, abolishing domestic monopolies, and liberalizing trade, the Fund may have undermined its own strategy by implying that all of these tasks were essential for recovery.

The Fund's strategy had another defect. By insisting on controversial reforms, it created uncertainty about the amounts of official financing that were in fact readily available to the crisis-stricken countries (see Bosworth 1998; Stiglitz 1998; Feldstein 1998). A strong case can be made for doling out IMF credit in tranches. If all of it were made available immediately, the Fund would have no way to punish a government that renegeed on its commitments. To put the point differently, the tranching of IMF credit enhances the credibility of a government's policy commitments and, to that extent, may actually contribute to the restoration of confidence.⁹ But the availability of IMF credit is itself important for restoring confidence. It is not meant merely to buy time for policy changes to take hold and capital inflows to resume. It has a key role to play in arresting a capital outflow caused by a loss of confidence.

There is, in brief, an inherent conflict between two key objectives. The need to ensure compliance with policy commitments calls for the gradual, conditional disbursement of IMF credit; but the need for exchange rate stabilization and the restoration of creditor confidence call for reliable

7. Krugman (1998a) goes further, arguing that the Fund's preoccupation with "the confidence game" led it to insist on policies having little to do with the urgent economic and social needs of the crisis-stricken countries; they were fashioned to appeal to "the prejudices of investors" or, worse yet, "what investors believe are the prejudices of their colleagues." Blinder (1999) uses more measured language but renders a similar judgment.

8. See, e.g., Feldstein (1998) and Radelet and Sachs (1998). Others, however, defend the Fund's approach; Goldstein (1998), Eichengreen (1998, 1999b), Lane et al. (1999), and Ahluwalia (2000) say that far-reaching reforms were required to resolve the Asian crisis.

9. For the first formulation, see Eichengreen (1999b) and Fischer (1999); for the second, see Brealey (1999) and Vines (2000).

up-front financing. At the margin, however, the conflict should usually be resolved in favor of front-loading. In “modern” crises, involving large capital outflows, unlike “old-fashioned” crises, involving large current account deficits, it is hard to estimate the so-called financing gap and thus ascertain the total amount of financing required to buy time for resolving a crisis. The size of the financing gap will depend on the size of the subsequent capital outflow, which will in turn depend on the amount of official financing provided.¹⁰ But the larger the amount of up-front financing, the smaller the risk of a large outflow. Therefore, front-loading can reduce the total amount of financing required. Fortunately, the Fund has moved in this direction. It adopted a more open-handed stance in the Brazilian crisis of 1998-99 than in the Asian crisis of 1997-98, and it has continued to do that.

Interest Rates, Exchange Rates, Confidence, and Output

Several economists have attempted to ascertain the impact of IMF programs on creditor confidence by asking how they affect exchange rates and other relevant variables. One would expect the results to differ from case to case, depending on market participants’ views about the credibility of a particular government’s policy commitments, and that may explain why these efforts have been disappointingly inconclusive. Richard Brealey (1999) reports that Asian exchange rates, equity prices, and bond prices were not significantly affected by announcements of IMF programs, and Takatoshi Ito (2000) reports mixed results, but Graciela Kaminsky and Sergio Schmukler (1999) find that the announcements of IMF programs tended to have a positive effect on Asian equity prices.

Economists have also attempted to ascertain the impact of interest rate policies on the behavior of Asian exchange rates. Some of the Asian countries started to raise their short-term interest rates soon after their currencies came under pressure, even before they turned to the IMF.¹¹ They raised them only modestly, however—not as much as other countries facing similar problems, and not by enough to offset the contempora-

10. Crockett (2000) makes this point; see also Ahluwalia (2000) and De Gregorio, Eichengreen, Ito, and Wyplosz (1999). The Fund was able to calculate financing gaps in the debt crisis of the 1980s, even though the crisis involved an abrupt cessation of capital inflows. But in that case, the subsequent behavior of capital flows was not nearly as sensitive to the amount of official financing provided, and it was thus comparatively easy to forecast the amount of financing required.

11. The Bank of Thailand raised rates promptly but then pursued a stop-go policy, allowing rates to fall “at the first sign of exchange rate stability” (Lane et al. 1998, 42). The Indonesian central bank also raised rates promptly but reversed course sharply to assist domestic banks. But the Bank of Korea did not raise rates substantially until December 1997, not long before it had to abandon its defense of the won.

neous expectation that their countries' currencies would go on depreciating.¹² They were worried about the effects on their banking systems, as well as the output-reducing effects. But some were then told by the IMF that they must tighten their monetary policies, and this advice was controversial.

Some critics said that high interest rates would make matters worse by damaging the balance sheets of many more firms, aggravating the problems of the banking sector, and producing other effects that would make panicky creditors even more pessimistic about the prospects for the speedy recovery of the crisis-stricken countries. Furthermore, an increase in interest rates is apt to be seen as an attempt to compensate for the failure of other policies, in which case it will damage confidence.¹³ Even some who do not deny the efficacy of a conventional interest rate defense criticized its use in the Asian crisis. Its adverse effects on balance sheets, they said, combined with its other output-reducing effects, were more harmful than the larger currency depreciations that would have occurred if interest rates had not been raised (see, e.g., Feldstein 1998). But others took the opposite view, saying that larger depreciations would have done more harm (see, e.g., Cline 2000a).¹⁴

Empirical work on these issues has not resolved them.¹⁵ Jason Furman and Joseph Stiglitz (1998) examined 13 episodes in which interest rates rose temporarily by unusually large amounts and found that their level and duration affected exchange rates perversely. Aardt Kraay (1998) identified large sets of successful and unsuccessful attacks on countries' currencies (successful attacks being those that produced large depreciations); he found no significant relationship between central banks' interest rate policies and the success or failure of the attacks, even though he sought

12. When a currency is expected to depreciate by 1 percent per day, risk-neutral investors will require an overnight interest rate 1 percent above the international interest rate. Hence, the annualized interest rate difference must exceed 3,600 percent; see Furman and Stiglitz (1998), who note that the rupiah depreciated by an average of 0.8 percent per day between 1 July 1997 and 30 January 1998, so that a risk-neutral investor who had forecast correctly the actual rate of depreciation would have required an annualized interest rate premium of 1,700 percent to hold rupiah-denominated claims.

13. These and other perverse effects of a conventional interest rate defense are set out at length by Furman and Stiglitz (1998). Several recent papers have sought to model formally the effects of an interest rate defense; see, e.g., Lahiri and Vegh (2000) and Flood and Jeanne (2000). But most of those papers use "first-generation" models of currency crises in which the collapse of the currency is inevitable; they are concerned solely with the impact of interest rate policy on the timing and cost of the collapse.

14. Lamfalussy (2000) gives another rationale for a strong interest rate defense: combating the inflationary effects of a large depreciation by limiting the depreciation and reducing aggregate demand.

15. The summary that follows draws heavily on the review and assessment in Lane et al. (1999).

to control for the endogeneity of those policies. But Ilan Goldfajn and Poonam Gupta (1999) obtained different results when they asked a slightly different question: confining attention to cases in which a currency has already depreciated and is clearly undervalued, is there any relationship between interest rate policy and the subsequent path of the exchange rate? They found that higher-than-average interest rates are positively associated with subsequent appreciation. Finally, Goldfajn and Taimur Baig (1998) used daily data to study the Asian story itself. They found that interest rates do not explain exchange rates and that exchange rates do not explain interest rates. In some subperiods, however, increases in interest rates were significantly associated with currency appreciations.

Working with data on individual firms, Stijn Claessens, Simeon Djankov, and Giovanni Ferri (1998) found that the effects of the depreciations of the Asian currencies were larger than those of the interest rate changes; the exchange rate changes, by themselves, drove almost two-thirds of Indonesian firms, one-fifth of Korean firms, and one-tenth of Thai firms into insolvency, and they drove even larger numbers of firms into illiquidity (defined as a state in which the firms' debt service payments exceeded their pretax earnings). The effects of the corresponding interest rate changes were appreciably smaller. But this finding does not resolve the debate about the benefits and costs of an interest rate defense: it says nothing about the extent to which the Asian currencies would have depreciated if interest rates had not been raised.

It is thus hard to quarrel with Barry Eichengreen's summary of the debate about the interest rate defense:

The effect of interest rates on the exchange rate, while an empirical question, is one on which there exists exactly zero convincing evidence, forcing both the Fund and its critics to rest their cases on arguments rather than statistics. Both sides can agree that in theory there exists an "interest rate Laffer Curve." While modest interest rate increases are likely to strengthen the currency, if taken to excess they may so damage the financial condition of banks and firms that confidence deteriorates and the currency weakens. The empirical question is where the point of inflection lies and whether IMF-inspired policies surpassed it. . . . Assertions that interest rates were pushed to the point where they weakened the exchange rate rather than strengthening it remain just that—assertions. (Eichengreen 1999b, 112)

But agnosticism does not justify imprudence. A sensible economist advising the government of a crisis-stricken country would not tell it to go all out for domestic recovery by cutting its interest rates sharply without also warning that the country's currency is apt to depreciate steeply unless the government suspends debt payments and imposes comprehensive capital controls.¹⁶ And if the government is unwilling to take those steps

16. Eichengreen (1999b) makes this point clearly; so does Krugman (1998a).

and fears the consequences of a large depreciation, a sensible economist would tell it to raise interest rates and hold them at fairly high levels unless and until it is quite clear that the gambit is not working.¹⁷

Can the IMF Function as an LLR?

The IMF has often been described as a lender of last resort (LLR), and that is an apt description—up to a point. Member countries turn to the Fund when no one else will lend to them on affordable terms. Recently, however, the term has been used more strictly to describe the role of the Fund. The IMF should serve as the ultimate bulwark against creditor panic, because no other institution can take on that task. Yet those who use this metaphor have little else in common. Some, like Stanley Fischer (2000), use it to characterize and defend the Fund's recent practices—the increasingly frequent use of large-scale official financing. Others, like Charles Calomiris (1998b) and the Meltzer Report (IFIAC 2000), use it to attack those same practices and to insist that the Fund should redefine its role.

The Classic Case for an LLR

Before examining the merits of these disparate views and their implicit presuppositions, we should revisit the normal meaning of an LLR. There is, as Fischer (2000) notes, no agreed-on definition, but few who use the term could object strongly to this one: an LLR is an institution that is willing and able to supply unlimited amounts of short-term credit to financial institutions when they are threatened by a creditor panic that could cause an implosion of lending or a sharp fall in the money supply, which would do serious damage to the real economy. It can be the central bank, which has the credit-creating power to perform that role, but other institutions, including private institutions, have often served as LLRs; Curzio Giannini (1999) gives examples. An LLR can lend to the market at large or to individual banks.¹⁸ And it may or may not adhere fully to

17. This recommendation is broadly consistent with the finding by Eichengreen and Rose (2001): countries that defended their currencies successfully suffered smaller output losses than those that failed to do so. (Their paper, however, does not cross-classify the two groups of countries to distinguish clearly between those that mounted an interest rate defense, successful or otherwise, and those that adopted a different defense.)

18. See, however, Capie (1998), who argues that a well-behaved LLR, true to the principles set out by Thornton (1802) and Bagehot (1873), will lend only to the market at large, not to individual banks. For this reason, he says, and because it cannot create an ultimate means of payment, the IMF cannot serve as an international LLR. But Capie's argument is strongly influenced by Thornton's concern (the need to prevent a large fall in the money supply) and by the peculiar *modus operandi* of the Bank of England, which did not deal directly with British banks but instead bought up bills offered by the discount houses, leaving it to them to on-lend the proceeds to individual banks. Goodhart (1999) takes the opposite view.

Walter Bagehot's well-known rule—that the LLR should lend freely but at a high interest rate and against good collateral. Some central banks post discount rates that do not differ appreciably from prevailing market rates, and some are prepared or required to lend without demanding collateral.

Why did Bagehot want the LLR to charge a high interest rate and require collateral? Insistence on high interest rates is commonly interpreted as a way to discourage abuse of the credit-creating facility provided by an LLR. It could be abused *ex ante* if banks were led to act imprudently; it could be abused *ex post* if banks were led to borrow from the LLR to meet routine liquidity needs. Today, however, the *ex ante* problem of moral hazard is commonly addressed by “constructive ambiguity.” A central bank that is firmly committed to act as an LLR is not necessarily committed to rescue every single bank that runs into trouble.¹⁹ Insistence on good collateral is justified by two concerns: the need to protect the LLR from suffering losses and the need for a way to distinguish between illiquid and insolvent banks, as the LLR should lend freely to illiquid banks but not to insolvent banks.

Under contemporary arrangements, however, these needs can be met differently. Most LLRs are public institutions—which was not true in Bagehot's time—and they can therefore look to their governments for indemnification if they suffer large losses. Furthermore, prudential supervision enables an LLR to distinguish between illiquidity and insolvency, even when the LLR is not directly involved in that supervision. And though bank supervisors are far from infallible, their judgments are apt to be better than those based on a bank's ability to post good collateral; a truly insolvent bank may still possess high-quality assets.

How the Fund Resembles an LLR

Turning now to the question at hand—whether the IMF can be or become an international LLR—consider Fischer's (2000) view that the Fund is

Lending to the market, he argues, is observationally equivalent to an open-market purchase made for monetary policy purposes; the LLR should therefore be defined by its willingness to lend to individual banks, even though it may also lend to the market in a particular episode (such as the 1987 stock market crash, in which the Federal Reserve supplied liquidity to the banking system on the understanding that banks would not reduce their lending to market-making securities firms). Fischer (2000) takes Goodhart's side, but for a different reason. Under crisis conditions, he says, market participants cannot distinguish clearly between illiquid and insolvent institutions and may therefore be unable to on-lend efficiently the credit created by an LLR that lends to the market at large. See also Jeanne and Wyplosz (2001), who argue that an LLR cannot assist illiquid institutions by lending to the market at large if that market is perfectly integrated with global markets; the credit it creates will flow out to those global markets rather than remain available locally to illiquid institutions.

19. See, however, Fischer (2000, 15) who warns against undue reliance on constructive ambiguity. There will always be some ambiguity about an LLR's response to a future crisis,

starting to look much like an LLR. He gives four reasons. First, the Fund has institutionalized large-scale lending by establishing the Supplemental Reserve Facility (SRF) and Contingent Credit Line (CCL); the former allows it to make larger amounts of Fund credit available than the usual cumulative limit (300 percent of a country's quota), and the latter allows it to make large amounts of credit available to countries that prequalify, so as to ward off contagion and the effects of other calamities for which they are not directly responsible. Second, the Fund has become an effective crisis manager; it has been able to mobilize consortia of governments to provide financing jointly with the Fund. Furthermore, it has become more nimble; by using the streamlined procedures of the Emergency Financing Mechanism (EFM), it is able to furnish assistance faster than before. Third, the Fund can supplement its financial resources by activating the New Arrangements to Borrow (NAB), as well as the General Arrangements to Borrow (GAB), and can therefore commit itself credibly to make large-scale financing available in the event of a creditor panic; it does not need the power to create international money, although it may be able to do so eventually if there is a relaxation of the rigid restrictions that currently govern the creation of Special Drawing Rights (SDRs).²⁰ Fourth, the Fund is taking on a new task—monitoring adherence to standards and codes that have been devised to guide and promote the strengthening of national financial systems; no international body is presently engaged in anything like prudential supervision, but the Fund will be able to influence the evolution and functioning of national regimes that oversee banks, securities markets, and other parts of national financial systems.

Fischer goes on to argue that the Fund is moving in the right direction. It *should* evolve into an international LLR, because a national LLR cannot create internationally acceptable money and thus meet its country's needs in an external crisis—one in which the government, the private sector, or both have massive demands for foreign currency. But he also argues that the Fund's ability to perform that special task will depend in large part on the effectiveness of ongoing efforts to involve private-sector creditors in the resolution of external crises—which is not how a national LLR tries

but "it is preferable to specify as clearly as possible the general principles under which the lender of last resort will act."

20. Special Drawing Rights are bookkeeping entries on the books of the Fund that can be created periodically under strict rules set out in the Fund's Articles of Agreement. They can be created to meet the "long-term global need" for international reserve assets and must be distributed in proportion to member countries' quotas in the Fund. They cannot be created on an ad hoc basis to finance the activities of the Fund itself. The first allocation of SDRs took place in 1970-72 and the second in 1979-81, but there have been no further allocations, and SDRs play only a marginal role in the international monetary system. They are not likely to become the "principal reserve asset" of the system, which was their original purpose. The SDR is valued in terms of a currency basket comprising dollars, euros, pounds, and yen.

to prevent or stem a creditor panic. Fischer views private-sector involvement as the way in which the Fund should combat creditor moral hazard.

There are, however, obvious objections to Fischer's reasons for claiming that the IMF is evolving into an international LLR.

How the Fund Differs from an LLR

Although the SRF and CCL enable the IMF to provide large-scale financing on a regular basis, without having to decide that each applicant country faces "exceptional circumstances" in order to breach the usual ceiling on quota-based drawings, the IMF does not lend freely in a Bagehot-like manner, against good collateral.²¹ Instead, it disburses large-scale financing in tranches to make sure that policy commitments are being fulfilled. It has front-loaded large-scale financing in several cases, but it cannot completely abandon its usual practice without losing its only device for monitoring conditionality. In other words, two sorts of credibility come into conflict: the credibility of the Fund's commitment to furnish adequate financing as an international LLR and the credibility of its client countries' commitments to implement policy changes. Yet both are required to end a creditor panic caused by doubts about the sustainability of a country's policies or the stability of its currency.²²

Although the IMF has been able to mobilize bilateral financing to supplement its own, the need for it to do that can also be taken to mean that the Fund does not have the resources required to serve as an LLR. Bilateral funding, moreover, comes with its own restrictions and conditions; it could not be used *pari passu* with the Fund's own money in the Indonesian and Korean cases, and there can be little doubt that some of the extraneous policy conditions imposed in the latter case reflected the narrowly national objectives of the governments involved (see Delong and Eichengreen 2001).

Furthermore, the rules governing access to the NAB and GAB are quite restrictive. The NAB can be activated only when the Fund receives a

21. In fact, the very concept of "good collateral" becomes rather fuzzy when transplanted to the international context in which the Fund operates. Claims on a crisis-stricken country cannot be deemed to be "good collateral" for the same reason that its "solvency" cannot readily be assessed. A country *can* pledge its reserve assets as collateral, but these are its own first line of defense; no country is likely to ask for Fund credit before it has drawn them down to a level that is not large enough to "back" a big loan from the IMF. A government can also pledge its country's future export earnings, but only if they can be mobilized easily by the country's government. (That is, in fact, what Mexico did in 1995, when it pledged future oil earnings as collateral for its loan from the ESF.) Meltzer (1999) mentions the use of collateral in his own plan for reform of the IMF, but the Meltzer Report does not, because of the "practical difficulties" that it would pose for many countries (IFIAC 2000).

22. Eichengreen (1999b) and Feldstein (1999) both emphasize this point.

request for a drawing and the managing director of the Fund considers that the proposed drawing “is necessary in order to forestall or cope with an impairment of the international monetary system” (IMF 1999g, 423) and that the Fund’s resources need to be supplemented in order to finance the drawing. After that judgment is made, moreover, the managing director must consult with the Executive Board of the Fund and with the governments participating in the NAB. In fact, the NAB cannot be activated without the consent of governments accounting for 80 percent of the credit commitments covered by the NAB.²³

Finally, the ways in which the IMF reviews its members’ policies and their compliance with international standards and codes are not even analogous to prudential supervision. The Fund itself has acknowledged that adherence is voluntary, and the official community has backed away from any attempt to penalize individual governments for declining to adhere to them. There are good reasons for that, discussed in subsequent chapters, but they undercut any analogy between the Fund and an international LLR. In fact, the structure of the IMF is based on principles quite different from those that govern the behavior of an LLR.

This point is stressed by Giannini (1999), who invokes my own analogy between the IMF and a credit union in which relations among members are based on reciprocal rights and duties (Kenen 1986). Here is what he says:

The concepts of reciprocity and lender of last resort are basically at odds with one another. The lender of last resort must either be in a position to create its own resources—which would be incompatible with the credit-union concept—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 U.S. clearinghouse system in the early 1900s. The framers of the international monetary architecture seem to have been aware of this tension, because 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. (Giannini 1999, 19)

Most important, the Fund is founded on the principle of universality. It can discriminate between cases by crafting policy conditions designed to resolve the particular problems facing one of its members, but it cannot say “yes” to one country and “no” to another simply because the first is well managed and the second is not. And a country is not a bank, which can be shut down completely. The Fund’s financial resources are limited—and they come from all of its members. The Fund’s punitive powers are

23. Giannini (1999) says that unanimity is required to activate the GAB and that the same rule holds for the NAB. In fact, the relevant clause of the GAB says that a proposal by the managing director must be “accepted by the participants,” but the so-called Baumgartner letter annexed to the GAB parses that phrase to mean approval by two-thirds of the participants accounting for at least three-fifths of the credit commitments. The corresponding clause of the NAB contains the provision cited in the text (see IMF 1999g, 426, 438, 463).

also limited—and they likewise derive from its members. In short, the IMF is a cooperative institution “whose activity can hardly be based on the tenets of ‘pure’ central banking” (De Bonis, Giustiniani, and Gomel 1999, 78).²⁴

Recasting the Analogy

Fischer sought mainly to stress the similarities between a national LLR, which comes to the aid of stricken banks during a creditor panic, and the IMF, which comes to the aid of stricken countries. Their roles are analogous, albeit distinct. Others have taken a different tack. In open economies, they argue, central banks may be unable to function effectively as LLRs. An increase of central bank credit will lead to a loss of reserves when the exchange rate is pegged and to a depreciation when the rate is flexible.

This problem is not new. Charles Goodhart (1999) reminds us that central bank lending was constrained under the gold standard, as any significant increase of lending could lead to a drastic fall in the central bank’s gold holdings, and there were two ways to resolve the problem: borrowing gold from other central banks or having the government step in to confer legal-tender status on the central bank’s own liabilities. But it has become important again because banking crises have become so frequent. A run on a country’s banks is almost certain to produce a huge demand for foreign currency by the banks’ panicky creditors. This outcome is inevitable when some of the panicky creditors are foreigners who have foreign currency claims on the country’s banks. That is what happened in Asia. But the same outcome is nearly inevitable when all of the panicky creditors are residents who have domestic currency claims, as they may try to protect themselves by moving their money to foreign banks and thus moving from domestic to foreign currency.²⁵

There is thus a functional complementarity between the role of the IMF as the ultimate supplier of foreign currency credit to a member’s central bank and the role of the central bank itself as the ultimate supplier of credit to the banking system in the event of a creditor panic.²⁶ This comple-

24. Cline (2000a) and Rogoff (1999) make similar statements, and Goodhart (1999) makes another point. The quota-based currency subscriptions made by the Fund’s members represent the full extent of their financial commitment to the IMF. Therefore, the Fund is fundamentally different from a national LLR, which can count on financial support from its government if it suffers losses.

25. The first case, involving foreigners, is cited by Brealey (1999) and by Goodhart (1999) as the rationale for IMF lending to mitigate banking crises; the second is cited by Chang and Velasco (1999) and by Mishkin (1999).

26. Mishkin (1999) carries this point further, asserting that liquidity from a foreign source, such as the IMF, does not lead to inflationary pressures of the sort caused by domestic liquidity creation and thus helps stabilize the domestic currency. Insofar as IMF assistance raises a country’s reserves, it does help stabilize the country’s currency. But close examination

mentarity holds, moreover, whether exchange rates are fixed or flexible. When they are fixed, a creditor panic will cause a huge loss of reserves; when they are flexible, it will cause a precipitous depreciation of the domestic currency.

Metaphor and Mischief in the Meltzer Report

The observation just made brings us directly to the Meltzer Report (IFIAC 2000).²⁷ One cannot make much sense of its recommendations without understanding the two-part premise on which they are based: creditor panics experienced by countries are due mainly to creditor panics experienced by those countries' banks, and a national LLR may not be able to stem an attack on its country's banks without foreign currency credit from an international LLR. Hence, the Meltzer Report recommends that the IMF transform itself into an international LLR. It should limit itself to making very short-term loans, base its lending decisions exclusively on preconditions aimed chiefly at appraising the soundness of its member countries' banks, and do little else.

Before examining these recommendations, let us look at their antecedents—the views of Allan Meltzer himself and of Charles Calomiris, whose plan for reforming the IMF is more cogent than the plan offered in the report.

Meltzer and Calomiris both attach great importance to moral hazard. Meltzer (1999) asserts that the Fund's willingness to provide large-scale financing has encouraged too much private-sector lending and allowed too few losses on risky loans. Furthermore, it has encouraged policymakers to postpone reform. Ministers of finance, Meltzer explains, must often choose between allowing more short-term foreign borrowing and adopting policies that would avoid a crisis. "It is sufficient for moral hazard that the existence of subsidized loans from the IMF modifies the finance minister's evaluation of the costs he faces. The very large increase in the number of countries experiencing large crises in recent years suggests

of the relevant transactions makes clear that liquidity from a foreign source cannot find its way to a country's banks without crossing the books of the central bank and raising the stock of base money. It is no less inflationary than liquidity provided by the country's central bank.

27. The discussion that follows focuses on the majority report and on its recommendations regarding the IMF. The report also deals with the multilateral development banks, the BIS, and (rather oddly) the World Trade Organization, and its proposals for reforming the multilateral development banks are just as radical as those for the IMF. The majority report was endorsed by eight of the eleven members of the commission, including Allan Meltzer, Charles Calomiris, and Jeffrey Sachs. A minority report was filed by four members (one of whom also endorsed the majority report). The minority report, drafted by C. Fred Bergsten, anticipates many of the criticisms set out in the text below; see also the critique prepared by the US Treasury (2000).

that a change of this kind has occurred” (Meltzer 1999, 252). Calomiris (1998b) goes further. In too many cases, he says, IMF credit has been used to bail out insolvent banks and corporations, shielding them from market discipline.

A Very Different IMF

What, then, did they recommend? Meltzer favored the creation of an international LLR that would follow Bagehot’s precept. A central bank could borrow from it only by presenting appropriate collateral—internationally traded assets—and would thus be induced to hold such assets. The central bank would then on-lend to domestic banks in the event of a bank run.²⁸ Presumably, the new institution would replace the IMF, though Meltzer did not say so explicitly. Calomiris urged the IMF to return to its earlier mission, “advising countries on their macroeconomic policies (to improve exchange rate stability) and serving as an internationally delegated monitor charged with tracking those policies and providing credible information to global capital markets” (1998b, 90). Calomiris said nothing about IMF lending, though he noted cryptically that the Fund has enough capital to carry out these tasks. In another paper, however, Calomiris (1998a) offered a blueprint that reappeared thereafter in the Meltzer Report.

Calomiris would reconstitute the IMF by restricting its membership to countries that adopt “credible” bank regulation. By this, however, he does not mean prudential supervision (though he notes that regulation is required to limit inside lending, monitor market risk exposure, and oversee compliance with capital requirements). Instead, he favors a regime with four components: (1) capital requirements, including a subordinated debt requirement, to guarantee that the banks’ uninsured claimants—holders of equity and subordinated debt—will suffer losses whenever the banks suffer losses and will therefore monitor the banks’ behavior; (2) conventional reserve requirements that must be satisfied by holding cash and globally traded securities denominated in dollars, euros, or yen; (3) explicit deposit insurance; and (4) the unlimited chartering of banks conforming to common regulatory standards, as well as unrestricted foreign investment in domestic banks to provide adequate capital and foster diversification.

28. The notion of on-lending is an odd one in this context, involving a departure from the typical way in which governments and central banks utilize IMF credit. Central banks sometimes lend foreign currency to their commercial banks or deposit it with them (as Korea did in 1998). Normally, however, governments and central banks provide foreign currency to banks and others via the foreign exchange market, selling foreign currency rather than lending it. But others have also proposed that central banks on-lend foreign currency supplied by the IMF when they discuss the role of the Fund as an international LLR; see, e.g., Jeanne and Wyplosz (1999).

This new IMF should impose restrictions on the recapitalization of banks, set standards for the maturity structure of government debt, require countries with fixed exchange rates to let their banks offer deposits in both foreign and domestic currencies, and require those countries' central banks to hold reserves equal to some fixed fraction of the monetary base.²⁹ Having laid down these requirements, the new IMF would act "to mitigate problems of illiquidity that may arise when a country is pegging its exchange rate" (Calomiris 1998a, 26). It would do that by opening a discount window to lend to central banks in a Bagehot-like manner, demanding collateral, charging a high interest rate, and limiting its loans to 90 days. Furthermore, it would use a market test to assess the quality of a borrower's policies: it could refuse a request for credit if the fundamentals driving the value of the collateral—which would include the country's own securities as well as foreign securities—had deteriorated sharply in the previous week.

Finally, the new IMF would eschew conditionality. Conditionality would not be needed to protect the IMF itself; the collateral requirement would do that. And it would not be needed to induce policy changes by countries with ongoing balance of payments problems; they would be barred from borrowing by the market test (or be cut off later by the 90-day limit on IMF loans) and would then have to rectify their policy errors.

Whatever one's views about the quality of this blueprint, one cannot accuse Calomiris of failing to devise a coherent plan or failing to explain it carefully. Furthermore, it has a well-defined objective—strengthening the banking systems of emerging-market countries—which Calomiris rightly regards as a vital part of a successful development strategy. The Meltzer Report, however, borrows his blueprint as a ready remedy for all the faults and failings of the IMF. Furthermore, its account of those faults and failings is elliptical and tendentious.

From Reform to Rhetoric

In its account of the Mexican crisis, the Meltzer Report implies that the credits provided by the IMF and US Treasury were used to support insolvent banks and protect insolvent borrowers and that the Mexican taxpayer was stuck with the bill. There was a banking crisis in Mexico, its resolution was costly, and the Mexican taxpayer must pay for it eventu-

29. Calomiris would not require the IMF to impose any sort of fiscal discipline. "It is too hard," he says, "to design useful, credible, uniform rules about fiscal policy" (Calomiris 1998a, 25). In this respect, his plan differs significantly from the Meltzer Report. But the fiscal requirement proposed in the Meltzer Report seems to have been a last-minute addition. It is indeed the only point at which the report acknowledges that many currency crises are first-generation crises of the type modeled by Krugman (1979); they are caused by bad budgets, not bad banks.

ally. But the report goes further, asserting that Mexico's debt to the IMF and US Treasury represented a net addition to the burden borne by the Mexican taxpayer. Insofar as Mexico used the funds provided by the IMF and US Treasury to redeem the outstanding *tesobonos*, it was left in the end with no more debt than it had before.

The report also claims that the Mexican episode sent the wrong message to foreign lenders, who made the Asian crisis very much worse by providing large short-term loans in the run-up to the crisis, and that "the importance of the moral hazard problem cannot be overstated." But it offers no evidence to this effect. The very next paragraph, moreover, veers off in a different direction: "Whether or not the IMF contributed to moral hazard in Asia, it did little to end the use of the banking and financial systems to finance government-favored projects, eliminate so-called 'crony capitalism' and corruption, or promote safer and sounder banking and financial systems" (IFIAC 2000, 33)—this after saying elsewhere that IMF conditionality is too intrusive and impedes the development of democratic institutions!

The report also wrenches statements out of context. At one point, it quotes an IMF staff study (Ul Haque and Khan 1998) that surveys recent research on the effectiveness of conditionality:

[I]t is now well accepted that Fund-supported programs improve the current account balance and the overall balance of payments. The results for inflation are less clear cut. . . . In the case of growth, the consensus seems to be that output will be depressed in the short run as the demand reducing elements of the policy package dominate. (IFIAC 2000, 19)

But that's not the end of the passage in the staff study. The rest—not quoted—reads as follows:

Over time the structural reform elements of the program start to take effect and growth begins to rise. These newer empirical results indicate that, on average, Fund-supported adjustment programs have been more effective in achieving their objectives than earlier analyses would indicate. (Ul Haque and Khan 1998, 19)

And the same thing happens again. Discussing the debt crisis of the 1980s, the report asserts that the Fund's willingness to provide "an apparently unlimited external supply of funds forestalls creditors and debtors from offering concessions" (IFIAC 2000, 38). This is a gross caricature of the Fund's actual policy—its willingness to "lend into arrears" (i.e., before a government has reached agreement with its private creditors concerning the restructuring of its debt and is therefore still in arrears).³⁰

30. Furthermore, the report quotes Eichengreen (1999b) in support of its interpretation, whereas Eichengreen had cited the Fund's *previous* policy, under which it had refused to lend into arrears.

The Meltzer Report winds up by arguing that the IMF should be restructured as a smaller institution with three responsibilities: (1) to act as a quasi-lender of last resort to “solvent emerging economies” under a mechanism designed to avoid the abuse of liquidity assistance to sponsor bailouts, (2) to collect and publish financial and economic data from member countries and disseminate those data to market participants, and (3) to provide policy advice (but not impose conditions) in the course of its regular Article IV consultations.

The “mechanism” proposed by the report would be based on rules much like those outlined by Calomiris.³¹ To draw on the IMF, a country would have to allow foreign financial institutions to enter and operate freely; make sure that its banks are “adequately capitalized” so as to foster market discipline; publish regularly the maturity structure of its sovereign debt, including guaranteed debt and off-balance-sheet liabilities; and meet a “proper fiscal requirement” (the nature of which is not explained). IMF loans would be limited to 120 days with only one permissible rollover, and they would bear a penalty rate—a premium over the sovereign yield paid by the borrowing country one week before applying for an IMF loan.³² Finally, the report suggests that countries be subject to a borrowing limit equal to one year’s tax revenue, which would be very much higher than the Fund’s present quota-based ceiling.

The report adopts the two-corner approach to exchange rate policy—exchange rates should be fixed firmly or allowed to float—but does not follow Calomiris, who said that IMF financing should be limited to countries with fixed exchange rates. But like Calomiris, the report concludes that the Fund has sufficient financial resources. Should these not suffice, moreover, the Fund should borrow from the market or from member countries.

The blueprints proposed by Calomiris and the Meltzer Report would presumably meet the need for an international LLR to complement the functioning of national LLRs—to supply foreign currency credit when a national LLR must cope with huge cross-currency flows caused by a run on its banks. But both are seriously flawed because they are based implicitly on both parts of the two-part premise set out at the start of this

31. With one small but important difference. Whereas Calomiris would use those rules to govern membership in a new IMF, the Meltzer Report would not disband the existing IMF. Although many of its members would be barred from access to Fund credit, they would still be subject to the data-reporting requirement and to regular Article IV surveillance. (The report does suggest, however, that OECD countries should not be subject to surveillance, because their policies are reviewed by the OECD itself and by other bodies. But Mexico and Korea are OECD countries!)

32. Unlike Calomiris, the Meltzer Report does not call for collateralization (see n. 21, above); but it does insist that IMF loans be given preferred status and be exempted from negative pledge clauses.

discussion—that an international LLR is needed to deal with the external manifestations of a creditor panic, and creditor panics originate in the banking system. That may have been true in the Thai case. It was not true, however, in the Mexican case, where the acute phase of the crisis began when a creditor panic arose in the debt market—when foreign holders of *tesobonos* began to fear that the Mexican government could not roll them over.³³

There is, we have seen, a close association between banking and currency crises, and there was a banking crisis in Mexico. But causation can run both ways—and does. Emerging-market countries should be encouraged to strengthen their banking systems. But it would be hard to devise a more oblique and hazardous way of achieving that goal than the approach embodied in these blueprints—refusing access to IMF credit until countries have achieved it. Countries are not banks; they face many risks and problems. And the solvency of a country's banks says nothing about the solvency of the country itself—which is, in any case, an elusive concept. Barry Eichengreen (2000a) raises the same objection.

Both blueprints also reflect an obsessive concern with moral hazard and a remarkable faith in the ability of financial markets to make subtle judgments about very complex issues—to process information fully and exercise market discipline in a consistent, timely way. There is, indeed, a paradox here. If financial markets can do that, why should we worry about creditor panics?

Finally, both blueprints reflect a naive belief that an intergovernmental institution like the IMF can be bound by simple, objective rules—whether they are used to govern eligibility for membership, as in the Calomiris blueprint, or eligibility for IMF credit, as in the Meltzer Report. That is unlikely:

[The authors] seem to believe that by imposing an *ex ante* rule, discretion and political considerations will disappear. To the contrary, everything we know of international relations suggests that discretion will instead migrate to a different decision point, such as whether a country is eligible for IMF assistance. . . . The upshot might be the worst of both worlds—a nominal commitment to rules, which are broken in somewhat regular fashion. (Tarullo 2001, 38)

There may be no need to worry about this possibility, as the recommendations of the Meltzer Report will not be adopted. Some members of the Bush administration have been said to favor them, but they will not find

33. Consider, moreover, the case of Argentina in 2000-01. It might have met the preconditions set out in the Meltzer Report but might not have qualified for IMF assistance. It faced an incipient debt crisis—the risk that it would be unable to refinance its external debt—not a banking crisis. Furthermore, the penalty rate proposed by the Meltzer Report would have been extremely high, because the prevailing interest rate on Argentina's sovereign debt had risen hugely, thanks to the country's debt problem.

favor in other countries—least of all those that cannot expect to meet the preconditions for access to IMF credit. But those recommendations may surface again when Congress is asked to adopt legislation approving an increase in IMF quotas or takes up any other matter involving the Fund.

The Right Role for Prequalification

The Meltzer Report proposed that prequalification replace conditionality, and others have made that same recommendation. Here are two examples:³⁴

Malcolm Knight, Lawrence Schembri, and James Powell (2000) would reconfigure the IMF to concentrate all of its lending in two facilities. Access to the first facility would be based entirely on prequalification and be limited to 500 percent of a country's IMF quota. Access to the second facility would be based on conventional conditionality and be limited to 300 percent of quota—the normal cumulative limit. A country would prequalify for access to the first facility if it adhered to key standards and codes, such as the Basel Core Principles (BCBS 1997), had a "sustainable" exchange rate regime, and wrote collective action clauses into its sovereign bond contracts.³⁵ A country that did not prequalify for the first facility would be shunted to the second.

John Williamson (2000b) would eliminate all but one of the Fund's existing facilities and would create a new Crisis Facility. He would retain but liberalize the Compensatory Financing Facility (CFF), which would provide low-conditionality credit to countries afflicted by shocks clearly beyond their control, such as shortfalls in their commodity exports and natural disasters. The Crisis Facility, by contrast, would help countries cope with macroeconomic crises, and access to it would be governed by prequalification. A country would have access to that facility if it adhered to the Basel Core Principles and the Special Data Dissemination Standard (SDDS), wrote collective action clauses into its bond contracts, and, most important, was rated by the IMF as having "good" macroeconomic policies—a finding that the Fund would make at the conclusion of the coun-

34. Eatwell and Taylor (1998) provide a third, as part of a radical plan for reforming the international financial architecture. Writing before the Basel Core Principles had become the agreed-on standard for assessing the quality of banking supervision, they proposed that access to IMF credit be made dependent on the quality of financial-sector supervision. To that end, moreover, they urged the establishment of a World Financial Authority to oversee financial-sector supervision in individual countries (and to oversee the IMF itself). No country could draw on the IMF unless it met the standards set by that new institution. But Eatwell and Taylor were less clear on the point at issue here—whether this sort of prequalification would fully replace conventional conditionality.

35. Collective action clauses are discussed in chapter 4; they are aimed at promoting agreements between debtors and creditors when bonded debt must be restructured.

try's regular Article IV consultation. Presumably, this last requirement would replace conditionality.³⁶

These sorts of prequalification, however, are not adequate substitutes for conditionality, because they are based on a simplistic supposition. They assume implicitly that countries that prequalify will not need assistance from the IMF unless they succumb to contagion or to other shocks for which they bear no blame. But we have already seen that contagion is not random: the countries most likely to suffer contagion are those that are seen to have defective policies or other vulnerabilities for which they must take blame. Furthermore, countries that suffer long-lasting shocks for which they bear no blame must nonetheless adapt to those shocks and must thus change their policies. Adherence to the Basel Core Principles can perhaps protect a country from banking-sector problems, homegrown or imported, but cannot protect it from other problems. The use of collective action clauses can help a country resolve a debt problem but cannot prevent it from creating a debt problem by running an imprudent fiscal policy. Williamson's suggestion, that Article IV consultations be used to identify countries that have "good" policies, is better than most others. But Article IV consultations take place annually or, in some case, biannually, and a country's policies can go badly wrong between those consultations. Furthermore, his suggestion takes no account of the need for policy changes to adapt to external shocks.

This is not to say that prequalification is a bad idea. Indeed, it is a good idea, if it is combined with conditionality. It can be used to reward a country for doing sensible things—adopting the Basel Core Principles and other key standards and codes, putting collective action clauses into its bond contracts, and adopting devices proposed later in this book to strengthen its financial system and cope with creditor panics. Prequalification should be used as a carrot, not a stick—as a way to reward countries for adopting reforms that reduce the risk and cost of future crises. It should be used to provide them with faster, cheaper, or more generous access to IMF credit. It should not be used to decide whether a country deserves financing because it is an "innocent victim" or does not deserve financing because it has failed to take the steps that might have prevented a crisis or has followed policies that produced the crisis.

The Fund's current use of prequalification does not draw this distinction clearly, and that is one reason why the CCL has not been attractive to countries that might have been expected to apply for it. Because the CCL was meant to help countries cope with contagion or with global shocks beyond their control, a country applying for a CCL runs the risk of being judged by an invidious standard. If it applies and is rejected or, having

36. Williamson (2000b) does not say what sort of assistance would be available to a country that suffered a crisis but had not prequalified. His suggestions appear very briefly in a paper that surveys several proposals for reforming the IMF and the World Bank.

been approved for a CCL, is told later that it has ceased to qualify, markets are bound to conclude that its policies are defective and is therefore the wrong place in which to invest. Although the Fund has modified the terms of access to the CCL to give a country “the strong benefit of the doubt” when it seeks to activate its CCL,³⁷ the country will be stigmatized if its application is refused or its CCL is not renewed.

There is another way to show what is wrong with the CCL. A number of countries have made “precautionary” use of ordinary quota-based drawings. They do not expect to need them. By making the necessary changes in their policies, however, submitting thereafter to the regular quarterly review required of all countries with IMF programs, and making more policy changes when needed, they can obtain an unambiguous, ongoing endorsement of their policies—which is more desirable from their point of view than the promise of obtaining the benefit of the doubt when, at some uncertain future date, they seek to activate a CCL.³⁸ Furthermore, a country can often obtain an ordinary quota-based drawing and the corresponding “seal of approval” from the IMF as speedily as it can hope to obtain a CCL. As this book went to press, there were reports that three emerging-market countries had sought CCLs but that their negotiations with the IMF had gone on for many months. Finally, a country needing immediate help can presumably count on expedited treatment via the Emergency Financing Mechanism (EFM). It does not need a CCL to obtain Fund credit quickly.³⁹

We will return to prequalification at the end of this book, but in the alternative context suggested above—not as a way to determine whether a country qualifies for financing from the IMF or as a substitute for conditionality, but as a way to reward it for adhering to standards and codes, adopting collective action clauses, and introducing other provisions into its public and private debt contracts so that it may qualify for larger amounts of financing and at lower cost.

Can Floating Fix It?

Even before the currency crises of the 1990s, academic economists had begun to recast the debate about the comparative merits of alternative

37. This and other modifications in the terms of access are described in chapter 4.

38. Cline (2000a) argues that a country seeking a precautionary drawing can be stigmatized in the same way as a country applying for a CCL, but he misses the crucial distinction drawn in the text. The Fund rarely rejects outright a request for a “precautionary” drawing; instead, it calls on the applicant to modify its policies and adhere thereafter to “performance criteria.” By contrast, a country that meets the preconditions for a CCL cannot know in advance what policy changes may be requested when it seeks to activate its CCL. Furthermore, the quarterly reviews required of countries with Fund programs serve to renew periodically the Fund’s approval, and markets take notice of those regular renewals.

39. The same point is made by Goldstein (2001).

exchange rate regimes, and the crises themselves revived old objections to exchange rate pegging—even de facto pegging of the sort practiced by Thailand and some other Asian countries. Yet there was little discussion of exchange rate arrangements in the early phases of the architecture exercise. Writing in January 1999, Zanny Minton Beddoes noted that “the official architects are strangely silent about another crucial aspect of global financial reform: exchange rates” (1999).

Exchange Rate Regimes and the Architecture Exercise

There were two reasons for that silence about exchange rates. First, there were disagreements within the G-7 on this and other matters. American officials have long favored floating rates; Europeans, especially the French, have been fond of fixed rates, not only for themselves, as in the EMS, but for other countries too.⁴⁰ Second, the Articles of Agreement of the IMF permit individual governments to choose from a wide range of exchange rate arrangements. Article IV.2(b) lists these options:

- (i) the maintenance by a member of a value for its currency in terms of the special drawing right or another denominator, other than gold, selected by the member, or
- (ii) cooperative arrangements by which members maintain the value of their currencies in relation to the currency or currencies of other members, or
- (iii) other exchange rate arrangements of a member’s choice.

In short, almost anything goes. To be sure, Article IV also requires the Fund to “exercise firm surveillance” over its members’ exchange rate policies and “adopt specific principles” for the guidance of its members; that is the legal basis for the Article IV consultations that the Fund holds regularly with its members. Nevertheless, those principles must respect each member’s right to choose from the open-ended menu offered by Article IV.⁴¹

40. As recently as 2001, at a meeting of European and Asian finance ministers, the French and Japanese circulated a discussion paper endorsing a hands-on approach to exchange rate management—one quite different from that adopted by the G-7 at the Köln Summit in 1999. For more on European views concerning this and other issues, including German objections to large-scale official financing, as well as differences among the Europeans themselves, see Coeuré and Pisani Ferry (2000). On the evolution of the US role in the architecture exercise, as well as its role in shaping the official response to the Mexican and Asian crises, see Delong and Eichengreen (2001).

41. The Fund adopted a set of “general principles” in 1977 and has reviewed them periodically. They state that the Fund may initiate discussions with a member if it engages in “protracted large-scale intervention” or “an unsustainable level of official or quasi-official borrowing,” if it imposes or intensifies restrictions on current or capital transactions, if the behavior of its exchange rate “appears to be unrelated to underlying economic and financial conditions,” or if there are “unsustainable flows of private capital” (IMF 1999g, 12-13). But the Fund is not entitled to punish a member when it objects to the member’s exchange rate policy. (It should nevertheless be noted that access to IMF resources is not automatic, and

In May 1999, however, the US secretary of the treasury, Robert Rubin, ended the strange silence on exchange rate policy. In a speech at the School of Advanced International Studies, he referred obliquely to the freedom conferred by Article IV but warned against the risks and costs of pegging exchange rates and proposed a big change in the policy stance of the official community:

The right exchange rate regime is a choice of the individual country. Yet at the center of each recent crisis has been a rigid exchange rate regime that proved ultimately unsustainable. The costs of failed regimes can be significant, not only for the countries involved, but also for other countries and for the system as a whole. . . . As a matter of policy, we believe that the international community should not provide exceptional large-scale official finance to countries intervening heavily to defend an exchange rate peg, except where the peg is judged sustainable and certain exceptional conditions have been met, such as when the necessary disciplines have been institutionalized or when an immediate shift away from a fixed exchange rate is judged to pose systemic risk. (Rubin 1999)

His statement fell slightly short of endorsing the two-corner approach. Rubin did not say that each country can or should be made to choose between a flexible exchange rate and a firmly fixed rate, and no one in the official community has said that since.

Soon after Secretary Rubin's speech, however, the G-7 finance ministers used very similar language in their report to the Köln Summit. They began with a general observation:

Some emerging economies have sought to achieve exchange rate stability by adopting peg regimes against a single currency or a basket of currencies, often in the same region, of countries with which they have the closest trade and investment links. Countries choosing fixed rates must be willing, as necessary, to subordinate other policies to that of fixing the exchange rate. If countries choose fixed rates, recent history suggests that arrangements institutionalizing that policy can be useful to sustaining a credible commitment to fixed rates. (Group of 7 1999b, para. 30b)

And they went on to make another general observation:

We agree that the most appropriate regime for any given economy may differ, depending on particular economic circumstances, such as the degree of integration with its trading partners. Since economic circumstances vary over time, the most appropriate regime for any given country may also vary. In any case, stability depends on the exchange rate regime being backed by consistent macroeconomic policies and supported by robust financial systems. (Group of 7 1999b, para. 33a)

Then they borrowed Secretary Rubin's language, almost word for word, but omitted his qualifying reference to systemic risk:

We agree that the international community should not provide large-scale official financing for a country intervening heavily to support a particular exchange rate

the Fund can always reject a request for a very large drawing—one larger than the usual quota-based limits.)

level, except where that level is judged sustainable and certain conditions have been met, such as where the exchange rate policy is backed by a strong and credible commitment with supporting arrangements, and by consistent domestic policies. (Group of 7 1999b, para. 33b)

They chose to ignore—or did not notice—the conflicting implications of the first two paragraphs quoted above. A commitment to a fixed exchange rate will not be credible unless it is seen to be permanent or, at least, long-lasting; nevertheless, the G-7 ministers declared that the appropriate exchange rate regime is time dependent, because circumstances change. They also ignored the vexed issue of time consistency. What should the official community do when a government *has* intervened heavily to support a pegged exchange rate and has run out of reserves—and should the answer depend on the extent of the systemic risk involved in refusing large-scale financing?⁴²

Although the G-7 finance ministers endorsed Secretary Rubin's views, the IMF's Interim Committee did not.⁴³ This is all it had to say after the Köln Summit:

The Committee considers that increased mobility of capital has raised the requirements, in terms of both policy adaptability and institutional preparedness, for maintaining a fixed exchange rate regime. That said, members should be able to choose a regime that is appropriate to their particular circumstances and longer-term strategy. The choice of exchange rate regime and the implementation of supporting policies are critical for countries' economic development and financial stability, and in some cases potentially for the world economy. In all cases, IMF programs and surveillance should further focus on consistency of macroeconomic and other policies and institutional arrangements with the chosen exchange rate regime. (IMF 1999a, para. 17)

And it has not said much since—although others have said a great deal.⁴⁴

Classifying Exchange Rate Regimes

To sort out the issues being debated and the actual exchange rate policies of emerging-market countries, we need first to list the options. How best

42. A former official who has drafted more communiqués than he cares to remember scrawled a note opposite the first draft of this paragraph: "The fact that communiqués, especially successive communiqués, are not fully rational or consistent should come as no surprise to anyone; they are written by committees, often with late-night compromises to paper over fundamental differences." His point is well-taken and should be borne in mind when reading the next chapter, as well as this one.

43. The Interim Committee was subsequently reconstituted as the International Monetary and Financial Committee (IMFC).

44. Recently, however, the Fund's Executive Board agreed that the IMF should not provide large-scale assistance to countries intervening heavily to support an exchange rate peg that is inconsistent with underlying policies, and it encouraged the Fund's staff to help countries with pegged rates design exit strategies; see IMF (2000e).

can we subdivide the continuum of exchange rate regimes that runs from free floating to firm fixing? Here is a four-part taxonomy that draws on the one used currently by the IMF:⁴⁵

- Under a *free float*, a country's monetary authorities refrain from intervening on the foreign exchange market or altering interest rates for the purpose of affecting the level or path of the nominal exchange rate.
- Under a *managed float*, the monetary authorities do not adopt a particular exchange rate target; nevertheless, they intervene or alter interest rates at their discretion to affect the level or path of the exchange rate.
- Under a *soft peg*, the monetary authorities *do* adopt an exchange rate target and intervene or alter interest rates whenever the market exchange rate strays too far from that target. They may announce the target rate and the width of the band around it (which gives operational meaning to the phrase "too far") or may engage in de facto pegging, without announcing a target rate and without necessarily having in mind a clearly defined band. A target rate may be altered infrequently and, therefore, by relatively large amounts; that is what was done under the Bretton Woods system and in the EMS, which are sometimes described as having horizontal but adjustable pegs.⁴⁶ Alternatively, the target may be altered frequently and, therefore, by small amounts; that is what is done with crawling pegs or bands. In addition, the bands are typically wider under those arrangements than those surrounding horizontal pegs, because they must accommodate the changes in the crawling pegs. Soft pegs include single-currency pegs and multiple-currency (basket) pegs.
- Under a *hard peg*, the monetary authorities formally adopt a target rate and bind themselves firmly to maintain it indefinitely. There are three ways to do that: (1) converting the central bank into a *currency board* that must have foreign currency holdings at least as large as its monetary

45. On the Fund's taxonomy, see IMF (1999b); it differs in three major ways from the one in the text. First, it does not separately identify freely floating rates but lists them with other independently floating rates. Second, it distinguishes between two types of managed floating: "managed floating with no preannounced path" and "independent floating." Third, it uses a narrower definition of de facto pegging: my taxonomy includes all cases in which governments are committed in practice to a peg but do not announce it, whereas the Fund includes only cases in which governments precommit in practice to a peg surrounded by a narrow band. (Had the IMF been using its present scheme in the mid-1990s, it might not have classified a country such as Thailand as having a de facto peg, although Thailand was often described that way.)

46. The combination of a horizontal peg and narrow band is the "intermediate regime" criticized by Eichengreen (1995) when he predicted that countries with open capital markets would move eventually to one of the two corners. It is especially vulnerable to attack; see, e.g., Obstfeld and Rogoff (1995).

liabilities, must buy and sell foreign currency freely at the target rate, and must abstain from all other transactions (e.g., purchases and sales of domestic securities) that would alter its monetary liabilities;⁴⁷ (2) substituting a foreign currency for the domestic currency and thus extinguishing the exchange rate completely—the option described as *formal dollarization*; and (3) entering into a full-fledged *monetary union*, in which the members replace their national currencies with a new single currency and establish a new central bank to manage monetary policy for the union as a whole.

The boundaries between these regimes are clear conceptually but less clear operationally. No country can be deemed to practice free floating if its government or central bank has intervened recently or might do so in the future, and no one can assert with confidence of any central bank that it ignores the exchange rate completely when setting its interest rate policy.⁴⁸ The boundary between managed floating and soft pegging is even harder to draw operationally, because soft pegging includes *de facto* pegging, and one can only infer adherence to it from the observed behavior of the actual exchange rate and of other variables.⁴⁹ These difficulties, however, do not diminish the validity of the general conclusion, drawn by Stanley Fischer (2001a) and others, that there has been a discernible trend away from soft pegging. In 1991, only 3 of 34 emerging-market countries had hard pegs (Argentina and Hong Kong, which had currency boards, and Panama, which was formally dollarized), 21 had soft pegs, and 10 had managed floats; by 1999, a fourth country, Bulgaria, had a currency board, 14 countries had soft pegs, and 26 had managed floats,

47. On the history, functioning, and uses of currency boards, see Williamson (1995) and Ghosh, Gulde, and Wolf (2000).

48. The United States is often said to have a freely floating rate, which does come closer to free floating than do most other countries. In the 1970s and 1980s, it intervened to influence the value of the dollar in terms of other key currencies taken together (i.e., the dollar's effective exchange rate). Thereafter, it intervened less frequently and mainly to influence the dollar value of the yen or euro, not the overall value of the dollar.

49. For attempts to draw such inferences, see G. Calvo and Reinhart (2000a), Bénassy-Quéré and Coeuré (2000) and Levy-Yedati and Sturzenegger (2000). The same basic strategy is used by Edwards (2000) to absolve Mexico of the charge that it has practiced soft pegging rather than managed floating. It is nevertheless hard to use this technique to monitor exchange rate policies closely. A long span of data may be required to identify the key parameters of a *de facto* peg, especially one based on a currency basket; see Frankel, Schmukler, and Servén (2000), who go on to argue that the opaque nature of that regime buttresses the case for the two-corner approach. Transparency matters, however, mainly insofar as it enhances the credibility of a pegged rate regime and fosters the stabilizing speculation modeled by Krugman (1991) in his seminal paper on target zones. It is not by itself a reason for choosing or rejecting a particular regime.

including a number of large emerging-market countries, such as Brazil, Korea, Mexico, and South Africa.⁵⁰

Comparing Three Forms of Hard Pegging

All three forms of hard pegging have one common property. The advent of a balance of payments deficit, whether caused by a trade-related shock or by a reversal of capital flows, reduces the domestic money supply automatically, raises domestic interest rates, and thereby imposes deflationary pressures. Furthermore, those pressures will build up for as long as the balance of payments remains in deficit, because the money supply will go on falling. Thus, when wages and prices are sticky, output growth will fall, and there may be an outright recession. With a long-lasting shock, moreover, these painful effects will persist until the gradual fall in the price level—or faster inflation in the outside world—has brought about a real depreciation of the domestic currency large enough to offset the shock and thereby eliminate the balance of payments deficit. The buildup of deflationary pressures will be attenuated if an increase of domestic interest rates can attract capital inflows, as these will reduce the balance of payments deficit, and this is most likely to happen under formal dollarization and in a monetary union. Under both of those regimes, domestic banks are apt to have access to large, liquid interbank markets. Therefore, adjustment to shocks may be less painful than under a currency board, but it may take more time.⁵¹

Two sorts of hard pegs have other properties in common. A country that replaces its central bank with a currency board or dollarizes formally cannot pursue an independent monetary policy. To that extent, of course, both regimes serve to enhance the credibility of the hard peg itself. Under both regimes, moreover, the country must find a roundabout way to provide its banking system with a lender of last resort. A currency board

50. See Fischer (2001a, figure 2 and table 2). Countries counted here as soft peggers are those listed by the IMF as having conventional fixed pegs (as opposed to hard pegs), with narrow or wide bands, and those having crawling pegs or bands; countries counted here as managed floaters are those listed by the IMF as having managed or independent floats. Recently, one of the 34 countries (Ecuador) switched from managed floating to formal dollarization, and another developing country (El Salvador) has also dollarized. Five more countries have currency boards (Brunei, Bosnia and Herzegovina, Djibouti, Estonia, and Lithuania), and there are two monetary unions in Francophone Africa, both with the same single currency (the CFA franc), which is pegged to the euro. But no large emerging-market country belongs to a monetary union.

51. It is hard to test this conjecture, because there are so few countries with hard pegs. But Fischer (2001a) cites Argentina's experience to illustrate the painful nature of adjustment under a currency board, and Céspedes, Chang, and Velasco (2000) demonstrate formally that the output, employment, and investment effects of real exchange rate adjustment are larger with fixed than with flexible rates.

cannot serve as an LLR because it cannot acquire domestic currency claims, and the same problem arises under dollarization, because there is no domestic institution capable of creating bank reserves. Therefore, the government itself must serve as the LLR and raise the necessary funds by taxation or borrowing.⁵² Alternatively, under dollarization, the central bank of the country issuing the foreign currency that has replaced the domestic currency can serve as the LLR to its client country's banks.⁵³ (Under both regimes, to be sure, foreign commercial banks can serve as LLRs to their local affiliates, but there may be no way of forcing them to do so.)

Nevertheless, there are major differences between these two regimes. A currency board must hold foreign currency reserves and will therefore earn interest on them. A country that opts for formal dollarization must use its reserves to redeem and extinguish its domestic currency (and may even have to borrow if its reserves are small). The resulting revenue loss may not be inconsequential for the government or for the whole country.⁵⁴ Furthermore, it is easier to exit from a currency board than from formal dollarization. Like most governmental arrangements, currency boards are creatures of law and can be abolished by changing the law. More important, the durability of a currency board depends entirely on the strength of the commitment to it—whether the government is willing to incur the

52. The importance of this problem was illustrated by the banking crisis in Argentina during the 1994-95 Mexican crisis, shortly after the Argentine central bank began to function as a currency board. When large capital outflows led automatically to a sharp fall in bank liquidity, the government borrowed from the IMF and World Bank, used the foreign currency proceeds to buy pesos from the central bank, and lent the pesos to Argentine banks; see Caprio, Dooley, Leipziger, and Walsh (1996). Thereafter, Argentina erected defenses against a repetition of that banking crisis; it set up credit lines with foreign commercial banks and required Argentine banks to hold large amounts of liquid assets. Furthermore, foreign banks have acquired or replaced most of the major Argentine banks and thus strengthened the banking system; see Alston and Gallo (2000) and Edwards (2000).

53. Thus far, however, the Federal Reserve System has been unwilling to assume this role vis-à-vis the banks of countries that use the US dollar to replace their currencies, and the Clinton administration opposed any such foreign entanglement, saying that it would be inappropriate for the US authorities "to extend the net of bank supervision, to provide access to the Federal Reserve discount window, or adjust bank supervisory responsibility or the procedures or orientation of US monetary policy in light of another country deciding to adopt the dollar" (Summers 1999a).

54. Hanke and Schuler (1994) have urged the United States to compensate countries adopting the dollar for this loss of seigniorage, and legislation aimed at allowing it to do so was sponsored by Senator Connie Mack in 1999, before his retirement. Taking a different tack, Robert J. Barro has proposed that the United States print the necessary dollars and hand them over gratis; that would allow a dollarizing country to retain its reserves and use them to support its banks in the event of a future liquidity crisis ("Let the Dollar Reign Supreme from Seattle to Santiago," *Wall Street Journal*, 8 March 1999).

economic and political costs of abiding by the rules.⁵⁵ Finally, a country with a currency board retains its own currency and can abandon its hard peg without taking the steps required to introduce a new national currency. A country that has formally dollarized cannot move as swiftly and may be very vulnerable to capital flight and financial disruption if it is thought to be contemplating the introduction of a new national currency. The potential costs of that disruption constitute an additional barrier to exit and thus reinforce the credibility of the commitment to formal dollarization.

From the standpoint of an individual country, a monetary union has properties similar to those of the two unilateral hard pegs, a currency board and formal dollarization. The country gives up the right to pursue an independent monetary policy in return for relief from the need to defend its exchange rate. But there is also a basic difference. A monetary union has a central bank and can therefore pursue an independent monetary policy. Opting for a currency board or formal dollarization thus involves a surrender of monetary sovereignty, whereas membership in a monetary union involves a pooling of monetary sovereignty.⁵⁶ Under the two unilateral regimes, the country involved must accept some other country's monetary policy. In a monetary union, by contrast, monetary policy is designed to meet the needs of the entire union. (In the European case, it is aimed at maintaining price stability in the whole euro area, and each member country has a voice in the making of monetary policy, not just because it has a vote in the policymaking body but also because its own price index enters the price index of the euro area.) It is easy to show formally that the asymmetric policy domain of a currency board or formal dollarization is less satisfactory from the standpoint of the country concerned than the multinational policy domain of a monetary union.⁵⁷

A monetary union, however, may afford less protection against currency crises than does formal dollarization. Its members do not have exchange rates of their own, but the union has one, and it has to decide what sort of exchange rate regime to adopt. If it pegs its currency to some other currency, its pegged rate can be attacked. If it adopts a flexible rate, the union and its members still face exchange rate risk, and it will not be negligible unless the union's members trade mainly with each other. Furthermore, its vulnerability to currency crises may not differ greatly

55. The importance of this distinction is illustrated by the existence of a spread, which has been very large at times, between the interest rate paid by Argentine banks on peso deposits and the rate paid on dollar deposits; see Edwards (2000).

56. Cohen (1998), among others, has emphasized this point.

57. See Kenen (2000a) on the effects of real shocks under formal dollarization and a monetary union; see also Alesina and Barro (2000), who show that the benefits of dollarization depend on the ability of the client country to bribe the leading country to take explicit account of the client country's inflation rate when the leader sets its monetary policy.

from that of its member countries before they formed the union. Much will depend on its monetary and fiscal policies and on the quality of its financial system. If the union's central bank pursues a lax monetary policy, if its member governments run lax fiscal policies, or if its private sector accumulates foreign currency debt, it may still experience currency crises.

But another difference dominates the rest. A currency board can be introduced unilaterally, as can dollarization. But countries cannot form a monetary union without first agreeing on how it should be governed. If the United States, Canada, and Mexico were to form a North American Monetary Union (NAMU), how would its policymakers be chosen and how would they be held accountable for their performance? Who would draft and enact the legislation required to introduce the union's new currency and govern its subsequent use? The members of the European Union could not have written the Maastricht Treaty in 1991 had they not written the Treaty of Rome in 1958, creating the institutions of the European Union, and learned to use them thereafter.⁵⁸

There has been much talk about regional monetary cooperation in Asia and Latin America, and modest steps are being taken in that direction.⁵⁹ But the individual countries of those regions have different political systems and cultures. Furthermore, their regional trading arrangements are less complete and robust than those of North America, let alone those of the European Union. Thus regional monetary unions may be a long way off, and countries that want to adopt hard pegs may have to choose between currency boards and formal dollarization. Hence, the remainder of the chapter concentrates on those two forms of hard pegging and compares them with other regimes. Must emerging-market countries move to one of the two corners? If so, which corner? Or can a solid case still be made for intermediate regimes?

A Closer Look at the Two Corners

At an earlier stage in the debate about exchange rate regimes, economists focused on the effects of various shocks under fixed and floating rates. They distinguished between monetary and real shocks and between domestic and foreign shocks. It was widely agreed that countries faced mainly with domestic monetary shocks should opt for fixed exchange rates, because the intervention on foreign exchange markets needed to keep an exchange rate fixed would have the effect of exporting those shocks to the outside world. Furthermore, a firm commitment to a fixed

58. Buitert (1999) makes the same point.

59. See, e.g., Bénassy-Quéré and Coeuré (2000), Park and Wang (2000), and Christopher Swann ("Yearning for Stability Spurs Surge of Regional Harmony," *Financial Times*, 7 March 2001).

exchange rate would constrain the conduct of monetary policy, with the dual effect of conferring credibility on that monetary policy and reducing the size and frequency of the monetary shocks emanating from it. Countries faced mainly with foreign monetary shocks should opt for flexible exchange rates, which would insulate them from those shocks. It was likewise agreed that countries faced mainly with real shocks, whether domestic or foreign, should also opt for flexible rates. Adjustment to a real shock requires a change in the real exchange rate, which is much easier to achieve by changing the nominal rate than by changing the price level. In his review of the literature, however, Barry Eichengreen (1997) noted that this mapping of shocks and regimes is not very helpful when countries confront a variety of shocks or when the dominant type varies across time.

In the 1980s, attention turned to a different issue—the case for using a fixed exchange rate to restore price stability in a country suffering from high inflation. Fixing the exchange rate, it was said, would help in three ways. First, it would harness goods-market arbitrage to stabilize the domestic currency prices of internationally traded goods and thus reduce the inflation rate automatically. More generally, it would exploit the various links between the exchange rate, on the one hand, and domestic prices and wages, on the other. When the exchange rate is flexible, those links tend to produce a wage-price spiral and currency depreciation; when the exchange rate is pegged, the wage-price spiral tends to decelerate. Second, the move to a fixed exchange rate would affect expectations. Once firms and workers were convinced that the domestic currency had ceased to depreciate, they would have little incentive to raise prices and wages. Third, fixing the exchange rate would alter expectations about monetary policy. Instead of accommodating the wage-price spiral or, what is worse, driving that spiral, the central bank would have to defend the fixed exchange rate by reducing the growth of the money supply and keeping it low thereafter.

Unfortunately, these ideal outcomes rarely happen. The wholesale prices of traded goods stop rising quickly, but their retail prices do not. That is because retail prices include distribution costs, which depend on domestic wages and the prices of nontraded goods, and they cannot be stabilized by goods-market arbitrage. In fact, wages and the prices of nontraded goods go on rising for some time, albeit at reduced rates. Therefore, the real exchange rate appreciates gradually and becomes increasingly overvalued, posing a dilemma. If the government changes the fixed nominal rate or moves to a flexible rate, it undermines its credibility and risks reigniting expectations of inflation. If instead it sticks to the fixed rate, it faces a gradual deterioration in the trade balance, a need to attract capital inflows to cover a growing current account deficit, and the prospect of slow real growth in the traded-goods sector. Too often,

governments stick with fixed rates, because they put credibility first, and are then forced to abandon them when faced with currency crises. At that point, of course, their currencies depreciate sharply.

In short, fighting inflation may justify the temporary use of a fixed exchange rate, but the intrinsic dynamics of disinflation dictate an early exit, before the domestic currency becomes hugely overvalued. It is not a rationale for a permanently fixed rate, let alone a hard peg such as a currency board regime, from which it is hard to exit. It is indeed wise to exit at an early stage, when capital inflows are large and reserves are rising. The currency is likely to appreciate, not depreciate, when the fixed rate is abandoned. It is also important to adopt a new anchor for monetary policy, such as inflation targeting, to replace the previous exchange rate commitment. But the whole strategy poses a conundrum. Can a fixed rate serve as an anchor for monetary policy during the transition to low inflation, when everyone believes that the rate will be abandoned once it has done its job? A temporarily fixed rate might still promote goods-market arbitrage, stabilizing the prices of traded goods. But a temporary fixing of the exchange rate may not stabilize expectations, especially if, as Lawrence Summers (1999a) suggests, a country using a fixed rate to bring down inflation should disclose its exit strategy. It may be helpful, however, to introduce inflation targeting even before exiting from a fixed rate, whether or not the exit strategy has been disclosed in advance and despite the obvious awkwardness of trying to target the inflation rate as well as the exchange rate.⁶⁰

The two-corner approach to the choice of exchange rate regime can be viewed as a by-product of the previous debate about the efficacy of exchange rate-based stabilizations.⁶¹ Countries with open capital markets cannot sustain pegged but adjustable rates. If rates are adjustable, they can be knocked off their pegs. Thus, when the dynamics of disinflation require the abandonment of a pegged rate, a country cannot move to a new pegged rate and expect to stick to it. That is widely understood. It is equally clear, however, that the old taxonomic approach to the choice of regime cannot give countries adequate guidance. It does not take full account of the complex environment in which regime choices must be made.

60. Edwards (2000) surveys the large literature on exchange rate-based stabilizations and draws conclusions similar to those offered here. On exit strategies and the problems involved in switching from exchange rate targeting to inflation targeting, see Eichengreen (1999a) and Eichengreen et al. (1999).

61. In fact, one former US official has described the G-7 endorsement of the two-corner approach and the threat to withhold official financing from a country that intervenes heavily to defend a fixed exchange rate as a device for encouraging countries to exit early from exchange rate-based stabilizations and for prodding the IMF to persuade them to do so.

Three features of that environment have been cited frequently in the debate about the two-corner approach: (1) the extent of de facto dollarization, especially liability dollarization, which is itself a legacy of past inflation and currency depreciation; (2) the limited ability of emerging-market countries to issue long-term debt in their own currencies, which is likewise due to previous depreciations but also reflects the asymmetry between the size of the typical emerging-market country and the size of the global capital market in which it must borrow; and (3) the fact that no country can peg its currency to one key currency without having it float in terms of the rest—and in terms of all other currencies that are pegged to another key currency or float independently.

The first feature is invoked by Guillermo Calvo and Carmen Reinhart to explain why many emerging-market countries evince “fear of floating” and to explain why those countries should move from de facto to de jure dollarization.⁶² When firms, banks, and governments have large foreign currency debts, exchange rate fluctuations destabilize cash flows and balance sheets and can therefore produce large output losses of the sort suffered by the Asian countries in 1997-98.

The second feature is invoked by Ricardo Hausmann and others as a more general justification for formal dollarization, even by countries that have not undergone extensive de facto dollarization within their own economies.⁶³ Currency risk, they argue, has compounded country risk, inhibiting the development of capital markets, limiting the ability of firms and governments to issue long-term debt in domestic currency, forcing them to issue foreign currency debt, and thus perpetuating their exposure to currency risk. Hausmann calls this phenomenon “original sin,” and he sees formal dollarization as the path to salvation.

But the third feature of the environment is cited by those who warn that formal dollarization is dangerous for any country that trades extensively with many other countries and is therefore vulnerable to exchange rate changes in the outside world. To be sure, it is technically feasible to base a currency board on a currency basket rather than a single foreign currency. But such an arrangement sacrifices transparency and credibility to trade-oriented optimality, and it may not provide a perfect hedge against exchange rate changes in the outside world.⁶⁴

62. See G. Calvo and Reinhart (2000a, 2000b), who also cite econometric studies showing that developing countries are particularly vulnerable to the trade-depressing effects of exchange rate fluctuations.

63. See Hausmann et al. (1999) and Eichengreen and Hausmann (1999). Knight, Schembri, and Powell (2000) point out, however, that Chile and Mexico already have well-functioning markets for domestic currency debt. Furthermore, Larraín and Velasco (1999) raise questions about the statistical evidence offered by Hausmann et al. in support of their assertion that capital markets are deeper in countries that have fixed exchange rates.

64. Domingo Cavallo has said that he considered this sort of arrangement when designing Argentina’s currency board. It would have avoided the appreciation of the effective exchange

Crawling Away from the Corners

Where, then, do we wind up? Jeffrey Frankel (1999) is right to conclude that “no single currency regime is right for all countries or at all times.” And Stanley Fischer (2001a, 5) has written recently that “proponents of what is now known as the bipolar view—myself included—probably have exaggerated their point for dramatic effect.” But we can go further. We can safely say that no single exchange rate will be right for any country at all times. Therefore, the vast majority of countries should shun any regime that promises—or threatens—to fix the exchange rate forever.

There is, to be sure, “fear of floating” and some reason for it, but Calvo and Reinhart may overstate its prevalence and relevance. Two large Latin American countries that used to have pegged rates, Brazil and Mexico, seem now to be comfortable with flexible rates. And some of the Asian countries that seemed to be lapsing back into soft pegging after the Asian crisis allowed their currencies to depreciate substantially when the demand for their exports declined in 2001.

A hard peg may still be appropriate for a very small open economy, which is, for all practical purposes, an economic appendage of a single key currency country and cannot expect to outgrow that status. Formal dollarization, moreover, may be the best form of hard pegging for that sort of country. It is not easily undone and is, by its very nature, immune to attack: no one can short a currency that does not exist. Currency boards can be attacked; and though they have survived attacks, their built-in defense mechanisms have imposed high costs. The attack on the Argentine peso in 1995 began as a currency crisis, but the workings of the currency board transformed it into a banking crisis. The attack on the Hong Kong dollar in 1997 did not lead to a banking crisis, because Hong Kong’s banking system was less vulnerable, but it caused a sharp spike in interest rates that deeply depressed equity and property markets.⁶⁵

rate for the Argentine peso resulting from the appreciation of the dollar and the depreciation of the Brazilian real. He did not adopt it because his chief concern was to restore public confidence in the Argentine peso, and a one-to-one link between the peso and the dollar looked better from that standpoint than the variable link implied by a one-to-one link with a currency basket. In 2001, however, Cavallo introduced legislation that will tie the Argentine peso to a dollar-euro basket. The value of the peso will equal one-half of a dollar *plus* one-half of a euro, and the legislation will take effect when the euro reaches parity with the dollar (so that the shift to the new valuation will not cause an abrupt change in the dollar value of the peso). Lamfalussy (2000) has also raised the possibility of basing a currency board on a currency basket.

65. It should also be remembered that Argentina and Hong Kong chose hard pegs for very special reasons. Argentina sought to end its long addiction to inflation. Hong Kong sought to preserve financial stability in the face of the grave political uncertainty produced by the start of the very long process that would lead to the transfer of sovereignty from London to Beijing.

Hard pegs are inappropriate for larger countries, especially those with diversified trade or those likely to experience structural change as they develop. Although they may have reason to fear floating, they should be no less fearful of hard fixing. And they have very strong reason to shun soft pegging, even *de facto* pegging, because it attracts attack. For them, the two-corner approach constitutes a metaphoric warning rather than a menu of viable options. If you need to peg, it says, you must adopt a hard peg, not dwell in the soft peg neighborhood of the exchange rate continuum. But the constraints of a hard peg strongly suggest that you should move the other way, toward managed floating. How far you should go, however, remains an open question. You need not go all the way to free floating. Recall the main point made at the start of chapter 2. When faced with a very big capital inflow, too big to be sustainable, a country should bank a large part of the inflow rather than let its currency appreciate. And there is a sensible case for taking a stronger stand, along lines suggested by John Williamson.

A few years ago, Williamson (1996) favored crawling bands for emerging-market countries. They would adopt exchange rate targets, put wide bands around them, but let the target rates and bands move gradually through time to offset changes in economic fundamentals. This regime, he argued, would reduce the risk of serious misalignments in exchange rates—those that occur with pegged rates when fundamentals change, and those that occur with floating rates when fundamentals do not change but capricious shifts in market sentiment generate exchange rate changes. But when he returned to the subject two years later (Williamson 1998), he began to contemplate a less rigorous regime—a “monitoring band” instead of a “crawling band.” Under a crawling band, the monetary authorities must intervene on the foreign exchange market or modify their monetary policies whenever the market exchange rate crosses the edges of its band. Under a monitoring band, there is no such obligation:

There is a presumption that the authorities will normally intervene to discourage the rate from straying far from the band, but they have an extra degree of flexibility in deciding the tactics they will employ to achieve this. In particular, if they decide that market pressures are overwhelming, they can choose to allow the rate to take the strain, even if in doing so it goes outside the band. (Williamson 1998, 68-69)

What, then, is the operational difference between a monitoring band and a loosely managed float?

In practice, having a monitoring band may make a difference even if the authorities choose not to intervene, as long as the market knows that the authorities can employ policy weapons to push the rate back within the band, and the limits of the band are known. This knowledge should make the market fearful of pushing the rate so far as to set up the conditions for a bear squeeze (or a “bull squeeze”). Another possible restraint is that the market may believe that the authorities have

correctly estimated the long-run equilibrium rate in their positioning of the band; this again may discourage the market from pushing the rate as far as it would otherwise go. (Williamson 1998, 69)

And when Williamson (2000a) returned to the subject yet again, he urged emerging-market countries to revive the “intermediate option” by using a basket, band, and crawl—his “BBC” proposal—but he favored a monitoring band rather than a crawling band.⁶⁶ This proposal has merit. It can allay the fear of floating without drawing an indefensible distinction between an exchange rate change that crosses an arbitrarily fine line and one that is just a bit smaller than that. Furthermore, a monitoring band can be reconciled with inflation targeting under conditions of high but imperfect capital mobility, in which sterilized intervention is not utterly impotent.⁶⁷

What, then, remains of the view taken by the G-7 ministers, that the international community should not provide large-scale official financing to a country intervening heavily in defense of a soft peg? Not much. Very few countries should have hard pegs, and those that should have them will not need large-scale official financing if they dollarize formally rather than rely on a less robust currency board regime. Furthermore, the threat to withhold large-scale financing from countries with soft pegs will not be credible unless and until a large country with a soft peg runs into a currency crisis and is denied financing. It would be far better to devise another way of coaxing such a country off its soft peg before its currency is attacked. For that, of course, the Fund would need an early warning system—a subject to which we will come back.

66. The new and most distinctive feature of Williamson’s proposal is his recommendation that the East Asian countries adopt a common currency basket rather than the dollar standard recommended by McKinnon (2000).

67. To reconcile it with inflation targeting, however, the crawl of the monitoring band should be based on the authorities’ forecast of inflation (or their inflation target) rather than the current inflation rate; this was the strategy adopted by Israel (see Williamson 1996).