BOOK REVIEWS

EDITORIAL POLICY STATEMENT

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CURRENCIES, CRISES, AND CRASHES

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INTRODUCTION

Last year, I agreed to write a monograph reviewing recent efforts to reform the international financial system—the so-called architecture exercise. To prepare for that task, I spent some months reading the descriptive and analytic literature on recent currency crises, especially the Mexican crisis of 1994-95 and the Asian crisis of 1997-98. Tonight, I want to share with you some of what I learned about those crises and the best responses to them. Before doing that, however, I want to share with you some of my concerns about the way in which many of our colleagues have gone about modeling those crises and other complex events.

Rigorous theoretical work must always begin with a stylized representation of the events we seek to explain. We must suppress or simplify a welter of detail in order to focus on a manageable number of institutional arrangements and behavioral relationships. The usefulness of our subsequent work, however, will depend crucially on the quality of the stylized representation that emerges from that process. If we abstract from key features of the situation or episode we want to explain, we cannot expect to shed much light on it.

Unfortunately, many of our colleagues devote too little effort to that vital task. Some seem quite content to adopt someone else's stylized representation, because they are eager to pursue their main objective—showing that they can devise a more rigorous or parsimonious explanation for that same stylized representation. Others devise their own stylized representations but appear to base them on a quick reading of the handiest materials instead of immersing themselves thoroughly in the most authoritative sources.

You should perhaps bear in mind that I am not the best judge of the current literature. Some of it, indeed, lies beyond my grasp. Unlike many of my colleagues, I did not major in mathematics. When I was a graduate student at Harvard, we were allowed to substitute proficiency in mathematics for a second foreign language, and the requisite level of mathematical proficiency was ludicrously low by present-day standards. As I was reluctant to take the time to learn a second foreign language, I decided to try the mathematics exam. When the results were posted, I was heard to exclaim, "Wow. I passed." But Bob Dorfman, who set the exam, overheard me and corrected me. "You didn't pass," he said. "We passed you." Nevertheless, I am still usually able to cull from a fairly abstruse algebraic exercise the stylized facts on which it was based. And I am distressed by what I have found. Without naming names, let me cite three examples.

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One key characteristic of the Asian crisis was the extent to which Asian banks and firms had built up huge foreign-currency debts in the years before the crisis but had not hedged their foreign-currency exposure. When creditors began to demand repayment, debtors had either to buy foreign currency or default on their debts. There was therefore a large, inelastic demand for foreign currency at the start of the crisis, which explains why the Asian currencies depreciated hugely when they were set free to float. Yet one leading paper on the Asian crisis assumes that private-sector debt was denominated mainly in domestic currency.

Another recent paper got that fact right, but the author could not explain why Asian banks and firms did not hedge their foreign-currency exposure. One must conclude, he said, that there were no forward foreign-exchange markets for the Asian currencies. Had he read the descriptive literature on the Asian crisis, he would have known that the Thai central bank intervened massively on the forward foreign-exchange market in the run-up to the crisis. In fact, it encumbered almost all of its reserves by selling dollars forward. Hence, there must have been a market.

A third well-known paper asserts quite rightly that a central bank cannot serve as a lender of last resort to its country's banks without printing money and thus risking inflation and currency depreciation. And the same problem arises, it says, when a government seeks to recapitalize its country's banks, because it risks running a big budget deficit and having to print money in order to finance it. The paper goes on to assert, however, that the International Monetary Fund (IMF) can perform those tasks without raising the money supply of the country involved. Therefore, it says, the IMF should provide large-scale financing to countries that experience banking crises, as that is the only way to resolve those crises without risking inflation and currency depreciation. Last year, I quoted this assertion on the final exam in an undergraduate course on international monetary economics and asked the students to refute it. To give them a hint, I told them to follow an IMF loan from the Fund itself to a country's banking system, using simple T-accounts, and most of them did that correctly. They showed that the loan must go through the books of the central banks on its way to the stricken commercial banks and will therefore raise the money supply.

All of us know that graduate students have to impress potential employers with their analytic skills. But I wish we had some way to insist that they acquire command of the facts before choosing the stylized facts they want to explain. To do that, of course, they must read the relevant descriptive literature, which means that we must assign it, even if we have to read some of that dull stuff ourselves. And let us then judge the quality of their analytic work—and that of the job-market candidates who pass through our institutions—by asking how well they have posed the questions they seek to answer. We should not be content to ask whether they have used the best technique or definition of equilibrium to derive their answers.

So much for my state of mind. I turn now to the state of the world and, in particular, the state of the international financial system in the wake of the recent crises. I will deal with three questions: What was different about the recent crises, compared to earlier crises? What was different about the official response to those crises? What should be done differently to cope with future crises?

KEY CHARACTERISTICS OF THE RECENT CRISES

The title of this paper is borrowed from the title of a book by Paul Krugman—*Currencies and Crises*. I have added "crashes" not merely to avoid outright plagiarism but because the recent crises did indeed lead to crashes. There were, in fact, three sorts of crashes.

First, currencies crashed when they were set free to float. The Mexican peso, Thai baht, Malaysian ringgit, and Korean won lost half their dollar values in a matter of weeks. The Indonesian rupiah fell even farther when that country's currency crisis was compounded by a political crisis. But political uncertainties also played a significant role in the Mexican, Thai, and Korean crises. Stephen Haggard [2000] provides a fascinating account of the interactions between economics and politics in the Asian crisis. Second, domestic credit flows imploded when the currency crises triggered banking crises. Finally, capital formation contracted sharply when credit flows imploded, and that caused output to fall steeply.

I have already mentioned the most important reason for the currency crashes. They cannot be blamed on hedge funds or other greedy predators—the villains conjured up by Mahathir Mohamed to explain Malaysia's plight. They were due to the large, inelastic demand for foreign currency coming from domestic banks and firms having large foreign-currency debts. If greed played a role in the Asian crisis, it was the greed of Asian banks and firms that took on those huge debts in order to finance their participation in the building boom and property bubble that led up to the Asian crisis. Once the crisis struck, it was not greed but fear that caused the currency crashes.

In the Thai case, foreign creditors fled because the creditworthiness of the Thai banks had been impaired by the collapse of the boom and bubble, and when the foreign creditors fled, those to whom they had lent so freely had to buy dollars to pay off their debts. As soon as the baht collapsed, moreover, the creditors of other Asian countries began to run down their claims, because those countries' banks and firms were seen to be equally vulnerable. The Thai currency crisis was the result of an incipient banking crisis. Elsewhere, however, especially in Indonesia, the banking crises were the result of the currency crises. And the currency crises were due in turn to a self-fulfilling creditor panic, as rational defensive behavior by individual creditors led to the very catastrophe that each of those creditors feared.

In the Mexican case, by contrast, the foreign-currency debt of the private sector played a secondary role in producing the currency crisis, although it helped to produce the subsequent credit crunch and the resulting fall in output. It was, instead, the foreign-currency debt of the Mexican government—the large stock of so-called *tesobonos*—that played the main role in the critical phase of the Mexican crisis. There was a self-fulfilling creditor panic, but it reflected the creditors' fear that the Mexican government would default on the *tesobonos*. And Mexico was perilously to default on the eve of the rescue mounted by the U.S. Treasury and the IMF.

The IMF is often blamed for the subsequent implosion of domestic credit in the Asian countries—the cause of the crash in investment and output. The Fund's critics charge that it forced the Asian countries to pursue orthodox policies under conditions

that really called for unorthodox policies—reflation rather than deflation. Alan Blinder [1999], Paul Krugman [1998], Jeff Sachs [1997], and Joe Stiglitz [1999] took this line at one time or another. The implosion of domestic credit, they said, was due to the tightening of monetary policy favored by the Fund, and the sharp drop in output was due to the tightening of fiscal policy, as well as the implosion of domestic credit. There is some truth to these charges, but three points must be made.

First, the tightening of monetary policies was initiated by the Asian countries themselves, not at the behest of the IMF, in an effort to stabilize their countries' currencies. Furthermore, the tightening was not severe. The Fund did insist that Indonesia's central bank adopt a much tighter monetary policy, but that was after the Bank Indonesia had injected huge amounts of liquidity into the banking system to rescue several banks that were tottering at the brink of insolvency, and prices were rising rapidly as the rupiah plummeted [Lane et al., 1999].

Second, the tightening of fiscal policy was aimed at releasing real resources to exploit the expenditure-switching effects of the currency depreciations. It derived from the belief that the endogenous effects of the crisis would not have large output-reducing effects. In one case, indeed, it derived from the insistence of the country's own government that output would rise, not fall; on that optimistic supposition, a significant contraction of domestic expenditure would have been needed to exploit the export opportunities afforded by the depreciation of the country's currency. The Fund revised its fiscal targets for the crisis-stricken countries as soon as it became apparent that output was falling rapidly in those countries, that tax revenues were thus falling too, and that the countries could not meet the Fund's initial fiscal targets without raising taxes or slashing government spending. As output continued to fall, moreover, the Fund urged the Asian countries to shift sharply toward fiscal expansion, and it criticized one Asian country for failing to follow the Fund's advice that it should raise government spending.

Third, the critics of IMF orthodoxy pay too little attention to the principal cause of the sharp fall in output during the Asian crisis. The tightening of Asian monetary policies was partly responsible for the collapse of domestic lending that led to the fall in investment and output, but it was not the main villain. The credit crunch was due mainly to the depreciations of the Asian currencies. These had the effect of raising hugely the domestic-currency values of Asia's large foreign-currency debts and the domestic-currency cost of servicing those debts. They had disastrous balance-sheet effects on Asian banks and firms. Insolvent lenders faced insolvent borrowers, and credit flows imploded. It is easy to show, moreover, that the resulting fall in investment was the main cause of the fall in output.

IMPLICIT GUARANTEES, CRONY CAPITALISM, AND ALL THAT

Many accounts of the Asian crisis have blamed it on the implicit guarantees that the Asian governments gave their banks and firms and to the contingent liabilities arising from those guarantees. Michael Dooley [2000], for example, says that the Asian crisis had to occur as soon as the governments' contingent liabilities came to exceed the governments' assets. Craig Burnside, Martin Eichenbaum, and Sergio Rebello [1998] say that the crisis had to occur as soon as it became apparent that the Asian governments could not honor their contingent liabilities without running large budget deficits and would then have to monetize those deficits, causing domestic inflation and currency depreciation.

These are elegant models, in that they appear to explain both the cause and the timing of the Asian crisis. But they are much too neat. They are based on factoids, not stylized facts. Both models imply that the foreign creditors of Asian banks and firms should have seen the crisis coming. But the pre-crisis behavior of capital inflows, equity prices, and other variables suggest that the crisis was unanticipated. True, the problems of Thailand built up steadily in 1996-97, and the baht began to weaken several months before the onset of the crisis in mid-1997. But the other countries' problems erupted abruptly, when foreign investors and others realized suddenly that those countries looked like Thailand in several distressing respects.

Furthermore, both models imply that foreign investors and others were able to add up the implicit guarantees given by the governments of the Asian countries and could therefore calculate the governments' contingent liabilities. But that was impossible, because of the heterogeneity of the guarantees. Some of the implicit guarantees had obvious cash values, but others did not. What baht or dollar value would one attach to the implicit promise that troubled banks would not be closed when they were truly insolvent? What baht or dollar value would one attach to an implicit promise of more "directed lending" to a troubled company?

It makes more sense to treat these and other guarantees, and "crony capitalism" generally, as having contributed importantly to the vulnerability of the Asian countries and to the intensity of the Asian crisis once it was quite clear that the guarantees would not be honored fully. And blame for the crisis itself should be pinned on the creditor panic triggered by the incipient financial-sector crisis in Thailand and propagated thereafter by the unusually heavy dependence of Asian banks and firms on foreign-currency debt. As for the buildup of that debt, it must be blamed on the serious mistake made by many emerging-market countries in the 1990s—the rush to liberalize and open up the financial sector without paying sufficient attention to the corresponding need for strong prudential supervision.

THE POLICY RESPONSE

I have already discussed the orthodox aspects of the IMF response to the Asian crisis. Let me turn now to the unorthodox aspects—the large number and heterogeneity of the policy conditions attached to the use of IMF credit, and the size of the financial packages assembled by the IMF.

All of the crisis-stricken Asian countries were obliged to adopt far-reaching financial-sector reforms, not just those required immediately to repair the damage done to their banking systems by the crisis itself. Furthermore, they had to commit themselves to many other reforms that had no obvious bearing on their prospects for recovery. Indonesia was made to eliminate food subsidies and raise the prices of several food products, cut its import tariffs, discontinue the various privileges granted to the National Car, lift restrictions on foreign investment in several sectors, and abolish

domestic monopolies, such as those dealing in garlic and cloves. Korea was made to rescind prohibitions on the foreign ownership of financial institutions, halt directed lending by Korean banks, and liberalize trade with Japan. In fact, the number of so-called structural conditions contained in these two programs exceeded the number contained in the typical IMF program for a transition economy—one that was seeking to switch all the way from plan to market.

After the Mexican crisis, emerging-market countries and their foreign creditors were warned that they should not expect the official community to provide large-scale financing of the sort that Mexico received in 1995. A report endorsed by the governments of the major industrial countries put the point bluntly:

> ... neither debtor countries nor their creditors should expect to be insulated from adverse financial consequences by the provision of large scale official financing in the event of a crisis. Markets are equipped, or should be equipped, to assess the risks involved in lending to sovereign borrowers and to set the prices and other terms of the instruments accordingly. There should be no presumption that any type of debt will be exempt from payments suspensions or restructurings in the event of a future sovereign liquidity crisis [Group of 10, 1996].

In 1997, however, the IMF assembled $17 billion in official financing for Thailand, $36 billion for Indonesia, and $58 billion for Korea. The contributors included the IMF itself, the World Bank and Asian Development Bank, and various national governments. It must be noted, however, that the amounts of financing made available up front were far smaller than these numbers.

There were two reasons for this difference. The first was the ordinary practice of the IMF, which doles out its financing in quarterly installments, in order to monitor and guarantee compliance with the various policy conditions attached to that financing. The second was the novel practice of combining IMF funding with bilateral funding. In the Thai case, the bilateral funding was disbursed in tandem with IMF funding. In the Korean case, however, it was set aside as a "second line" of defense. Hence, Korea could not use it, even in December 1998, when Korea ran out reserves and had used up all of the money that was currently available from the IMF. At the end of March 1999, Thailand had drawn down $13 billion of its $17 billion package, but Korea had drawn down only $28 billion of its $58 billion package. In short, the official community relied primarily on adjustment and only secondarily on financing in its attempt to cope with the Asian crisis.

What was the rationale for this strategy? There was, of course, the usual concern about moral hazard—that large-scale official financing would encourage both creditors and debtors to behave imprudently. But that was not the main concern that shaped the official response to the Asian crisis. The IMF did not interpret the Asian crisis as a pure creditor panic. If creditors fled, they had good reason—the deep-seated structural defects of the Asian economies. Therefore, the Fund concluded, foreign investors would not return and capital inflows would not resume until the Asian countries had displayed their willingness to correct those defects, especially flaws in the financial sector.

Nevertheless, the IMF believed that they could do that quickly, so that exchange rates and output would stabilize quickly, even though capital inflows might not resume immediately. In other words, the Fund expected a rapid revival of confidence, thanks to its own intervention—the policy commitments it extracted from the Asian governments and the financing they would obtain if they fulfilled those commitments. In addition, the Fund—and most of the rest of us—expected the depreciations of the Asian currencies to do what the textbooks predict: raise exports, reduce imports, and thus raise total output, as well as improve the trade balance. By running trade surpluses, moreover, the Asian countries would be protected from any delay in the revival of capital inflows, and that would minimize their need for large-scale official financing. There was indeed a remarkable shift in the trade balances of the Asian countries; they ran large trade surpluses in 1998. But not for the predicted reason. There was no significant increase in exports, but there was a very large decrease in imports, due to the fall in Asian output caused by the balance-sheet effects of the currency depreciations. I have described this elsewhere as "dysfunctional" adjustment [Kenen, 2000].

Taken as a whole, the strategy adopted by the IMF seems to have been built on precarious premises. It assumed that orthodox policy changes and far-reaching structural reforms could be implemented promptly and would restore confidence quickly, so that capital outflows would cease. Hence, modest amounts of up-front financing would be sufficient to achieve and sustain exchange-rate stability. This strategy could have worked if these suppositions had been satisfied, but it was apt to fail if anything went wrong—and something was bound to go wrong. That's Murphy's Law. If governments procrastinated, and they did, the restoration of confidence would be delayed, and it was. If confidence was not restored quickly, capital outflows would continue, and the amount of financing provided would then be too small to keep the Asian currencies from depreciating further.

The Fund's insistence on far-reaching structural reform during the crisis itself may have made matters worse by convincing panicky creditors that the Asian crisis was due to deep-seated structural flaws that had to be corrected promptly. Because they were not corrected promptly, confidence was not restored. The Fund was quite 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. By calling for other reforms, however, such as trade liberalization, removing restrictions on the foreign ownership of domestic banks, and abolishing domestic monopolies, the Fund may have undermined its own strategy by implying that all of these tasks were essential to resolve the Asian crisis.

By insisting on those reforms, moreover, the Fund created uncertainty about the amounts of official financing that would be available to the crisis-stricken countries. There is a strong case for doling out IMF credit in tranches. If all of it were made available immediately, the Fund would have no way to penalize a government that reneged 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. 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 due to a loss of confidence.

There is, admittedly, an inherent conflict between two sensible 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 up-front financing. At the margin, however, the conflict should be resolved in favor of up-front financing. In "modern" crises, involving large capital outflows, rather than "old-fashioned" crises, involving large current-account deficits, it is hard to estimate the so-called financing gap and thus ascertain the 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 financing provided. But the larger the amount of up-front financing, the smaller the risk of a continuing capital outflow. Therefore, front-loading can actually reduce the total amount of financing required. Fortunately, the Fund has moved in this direction. It adopted a more openhanded stance in the Brazilian crisis of 1998-99 than in the Asian crisis of 1997-98, and it has gone on doing that.

WHAT SHOULD BE DONE IN THE FUTURE

The Fund has drawn several lessons from the Asian crisis. In addition to providing more up-front financing, it has concluded that the scope of conditionality should indeed be limited. The Fund should not insist opportunistically on far-reaching structural reforms. It should limit itself to the policy changes and structural reforms that are deemed essential to cope with a crisis [IMF, 2001]. There is no consensus, however, not in the official community nor among academic economists, concerning the appropriate scale of IMF financing, and there is still a striking disjuncture between official rhetoric and official practice.

Every official communiqué says that large-scale financing should be provided only in truly exceptional circumstances. Nevertheless, "systemically important" countries appear to receive it routinely, including, most recently, Argentina and Turkey. Smaller countries, by contrast, have been denied large-scale financing and have therefore been forced to restructure their external debts. Ukraine, Pakistan, and Ecuador provide recent examples.

Some of the Fund's critics, moreover, want it to adopt a wholly different strategy. Last year, an advisory commission appointed by the U.S. Congress and chaired by Allen Meltzer issued a report that called for a radical transformation of the Fund's mandate [International Financial Institution Advisory Commission, 2000]. As a national central bank cannot create foreign currency, it cannot serve as a lender of last resort to its banking system when foreign creditors panic and run down their foreign-currency claims on the banking system. Therefore, the IMF should serve as the lender of last resort to countries that have sound banking systems but are nevertheless beset by creditor panics. But now comes the really radical part. The Fund should do

nothing else. It should not provide financing to countries afflicted by sovereign debt problems, adverse shifts in their terms of trade, or any other sort of balance-of-payments problem. Had this been its mandate in the 1990s, the Fund could not have come to the aid of Mexico, which could not roll over the *tesobonos*; it could not have come to the aid of Thailand, Indonesia, or Korea, which did not have sound banking systems. Thereafter, moreover, it would have been barred from assisting Brazil or Argentina, which had debt-related problems rather than banking-sector problems.

Others, including Stanley Fischer [2000], former first deputy managing director of the IMF, believe that the Fund can function as a lender of last resort, but not in the very restrictive sense proposed by the Meltzer report. They acknowledge the flaws in the analogy between the IMF and an international central bank. The Fund cannot create money; it cannot close down a country in the same way that a central bank can close down a commercial bank; and it cannot engage in anything like prudential supervision of its members' policies. Nevertheless, they favor large-scale official financing for countries that suffer reversals in capital flows like those that hit the Asian countries in 1997-98.

There is, however, another approach—which is the approach I favor. The IMF should always provide "bridge financing" to countries with balance-of-payments problems, regardless of the reasons for them, and it should be prepared to provide larger amounts of financing to countries with open capital markets. But it should not attempt to function as a lender of last resort—to furnish financing sufficiently large to offset a creditor panic fully. It must not relieve private creditors of the need to assess risks soberly. It must not relieve member governments of the obligation to strengthen their banking systems, undertake adequate prudential supervision, and follow appropriate policies— especially debt and exchange-rate policies. When creditor panics occur, moreover, the governments of the debtor countries must be prepared to suspend their debt payments, including those of the private sector, and then to engage their creditors in the restructuring of their debt payments.

There has been much talk about the need to involve the private sector in the resolution of emerging-market crises. That will not happen, however, until the official community has shown that it is prepared to withhold large-scale official financing from "systemically important" countries. Furthermore, the official community must cease to insist that countries resolve their debt problems in a market-friendly manner. In early 1998, foreign banks agreed to roll over their short-term claims on Korean banks and agreed thereafter to convert those claims into long-term claims. But that debt settlement was far from voluntary. The governments and central banks of the major industrial countries applied enormous pressure to their own countries' banks. In other cases, moreover, where no such pressure was applied, debtor countries had to "bribe" their creditors by offering very attractive terms to those who agreed to roll over their claims. They bought immediate relief but will have to pay for it later. Argentina affords the most recent example.

I have set out elsewhere [Kenen, 2001] the case for a more "coercive" approach to the resolution of debt problems—those arising from creditor panics and those that occur when a country has managed to run up an unsustainable debt burden. I have

also sought to answer those who oppose that approach. Let me deal briefly here with two of their objections.

Some critics say that the threat of a mandatory standstill will serve merely to accelerate the creditors' rush for the exit [Fischer, 1999; Lipton, 2000]. An IMF paper on the subject goes so far as to say that this is the test by which all such proposals must be judged [IMF, 2000]. Experience to date, however, suggests that a "voluntary" rollover of debt cannot be achieved until reluctant creditors have already left or have run down their claims to levels at which they are willing to roll them over. That was true even in the Korean case. There is thus no way to know *a priori* which will provoke the more drastic reduction in foreign creditors' claims—the threat of a mandatory standstill or the run-down that must often occur before foreign creditors will be content to engage in a voluntary rollover.

Some critics say a mandatory standstill will lead to litigation—that there is no feasible way of protecting debtor countries from lawsuits by their creditors when the debtors suspend their debt payments. This is a serious objection, but there is an answer—adding a standstill clause to all debt contracts, or to the subset of contracts involving foreign-currency debt. This approach was suggested by Canada's finance minister, Paul Martin [1998], and was also mentioned in the report of a working group set up under the auspices of the U.S. Treasury:

> It is also worth considering the addition of options to sovereign bonds and interbank credit lines that would allow a debtor government or debtor banks to extend the maturity of a bond or credit line for a specified period of time at a predetermined spread. Such options could be exercised to ease pressure on the government and the banking system in the event of a liquidity crisis. Such provisions could have an effect opposite to the effect of the put options that have been exercised in certain recent crises. These put options have reduced the maturity of various credits and thus exacerbated market pressures [Group of 22, 1998].

A similar suggestion was made by Willem Buiter and Anne Sibert [1999], and I have proposed a variant of the Buiter-Sibert scheme [Kenen, 2001]. Under all of these proposals, creditors entering into a debt contract having a rollover option or buying a bond with a rollover option could not sue a debtor who exercised the option; they would have consented implicitly to the resulting suspension of debt-service payments when they agreed to the terms of the contract or bought the bond having the rollover option.

The governments of emerging-market countries would, I am sure, be reluctant to include rollover options in their own securities or require their inclusion in private-sector contracts. Furthermore, it would take time to build those options into the whole stock of emerging-market debt. Therefore, it may be necessary for the IMF to warn that it will cease to provide large amounts of official financing to governments that have not adopted these options by some deadline date. In fact, the Fund should eventually set out a comprehensive set of preconditions that governments must meet in

order to qualify for anything more than modest amounts of bridge financing. Although I have not discussed all of them here, let me list them briefly:

- It should have subscribed to the IMF's Special Data Dissemination Standard (SDDS) and be meeting its main requirements, especially those pertaining to the reporting of reserves, reserve-related liabilities, and the external position of the country's private sector.
- It should have invited the IMF and World Bank to conduct an assessment of its domestic financial sector and, if advised to do so, have entered into a long-term contract with those institutions, committing itself to specific reforms aimed at reducing its vulnerability to future financial crises.
- It should have introduced so-called collective action clauses into its government's foreign-currency bonds, so as to facilitate negotiations with its private-sector creditors in the event of a future debt-related crisis.
- It should have adopted legislation requiring the inclusion of 90-day rollover options in all foreign-currency obligations, public and private, and adopted the procedures required to trigger the exercise of those options.

Countries that fail to meet these preconditions might nevertheless receive large-scale official financing, but only if the Fund's Executive Board decides by a large super-majority that a refusal to provide large-scale financing would put other countries at serious risk or impair the functioning of international financial markets.

Regular reliance on large-scale financing—trying to make the Fund into a lender of last resort—would be counterproductive. It would perpetuate imprudent behavior by private-sector lenders and discourage the governments of emerging-market countries from adopting appropriate policies and the long-run reforms required for them to take proper advantage of the opportunities afforded by active participation in international capital markets. Crisis financing cannot buy far-reaching structural reforms, but those reforms are urgently needed in many emerging-market countries.

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