Is Greater Private-Sector Burden Sharing Impossible?[1]

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Better ways of "bailing in" the private sector when crisis strikes and the International Monetary Fund runs to the rescue will be, it is hoped, one of the foundation stones of the "New International Financial Architecture." Recent experience has heightened concerns that international rescue packages have let creditors off the hook and are a source of moral hazard. The Mexican rescue in 1995 allowed that country to pay off its *tesobono* holders, sheltering them from losses and encouraging them to rush back to emerging markets, including Asian markets. The Asian rescues in 1997, it is said, similarly substituted official for private funds, permitting foreign creditors to scramble out of Asian markets courtesy of the IMF and ultimately the Asian taxpayer and encouraging additional risk-taking subsequently in the expectation that the same official behavior would recur. The denouement came with Russia. The belief that IMF assistance would be provided in the event of debt-servicing difficulties encouraged the "moral hazard play" in which investors poured funds into Russian treasury securities. When the expected level of assistance failed to materialize and Russia defaulted on its obligations, the market was seized by a creditor panic and a global credit crunch.

This interpretation underlies the push to develop ways of "bailing in" the private sector —

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of compelling investors to systematically share the financial burden of a crisis. The IMF has experimented with a variety of methods for involving the private sector, including direct pressure for international banks to lengthen their credit lines in South Korea, informal pressure for them to maintain their credit lines in Brazil, and asking the government of Ukraine to renegotiate its bonds as a precondition for the extension of official assistance. Financial engineers have sought to mechanize the process, designing “automatic haircuts,” “universal debt rollover options,” and other exotic instruments, and their ideas have received a sympathetic hearing in the international community.

Yet one cannot help but observe that progress on this problem has been slight. The IMF has not developed a set of regular procedures for bailing in the private sector, and the feasibility in the future of the approaches taken in Korea, Ukraine and Brazil remains an open question. The proposal that emerging-market borrowers incorporate collective action clauses into their loan agreements, while echoed in the complete set of “G-N” reports (N=7,10, 22), has not produced anything concrete. Neither has the market taken steps to adopt the automatic roll-over and write-down options of the rocket scientists.

The two explanations for why progress has not been more dramatic are, naturally, that the problem is either more or less severe than previously thought. The “less severe” school questions that moral hazard is an overwhelming problem and that it justifies actions that may disrupt the operation of the markets and make it more costly for reputable debtors to borrow. The G-N and the markets, now having had more time to reflect, may have come to see the need for radical changes in market arrangements and policies as less pressing. They may have been swayed by evidence that most investors in Mexico and Asia were not in fact let off the hook. In Mexico in

1995, the price of *tesobonos* tumbled before it became clear that the government would be able to retire them, and many investors who scrambled out of the market did so at a loss. In Asia in 1997, as in Mexico two years earlier, official support did not avert major declines in stock, bond and real estate prices, and investors in these markets suffered extensive losses. Nor is the pattern of investment in the wake of the Mexican rescue obviously consistent with the moral-hazard story. The subsequent surge of foreign investment was lending through banks, not lending through bond markets, and bank creditors were not rescued in Mexico. This bank lending was heavily directed toward Asia, even though the IMF's 1995 packages were for Latin America. Moreover, none of the emerging markets of Asia (except South Korea) had the same strategic importance to the United States; it was not obvious, in other words, that the Mexican rescue would be repeated.[2]

The "more severe" school insists that moral hazard is a problem but holds that the problem of bailing in the private sector is immensely complicated, more so than the proponents of automatic haircuts and universal rollovers would suggest. This explains why there has been so little progress. Creditors are heterogeneous; it is not clear that bank creditors and bondholders can or should be treated in identical ways. Adverse selection and moral hazard are likely to render the market in new financial instruments illiquid and volatile. The logistics of orderly restructurings are formidable in a world of custodial notes, credit derivatives, and cross-default clauses. Above all, it is important to avoid financial and policy innovations with unintended consequences. Bail-in provisions that make it significantly more difficult or expensive for emerging-market borrowers to access the market could have serious costs. Provisions for an

[2]As argued in Arndt (1999).

automatic stop of payments in the event of financial difficulties might cause creditors to scramble out of the market in anticipation of their activation, precipitating the very crises that officials wish to forestall. The gravity of these difficulties has led pessimists to conclude that greater private-sector burden sharing may be impossible.

Still, there is no denying, as then-Deputy Treasury Secretary Lawrence Summers argued at the beginning of March, that a key step in learning to deal with modern financial crises is "devising better mechanisms for ensuring that private sector creditors bear their share of the burden." My paper reviews the options. These are of two types: rules-based approaches to bailing in the private sector, and discretionary approaches under which the authorities encourage the lenders and borrowers to restructure on a case-by-case basis.[3] The latter is sometimes referred to as "the American approach" since it is favored by the U.S. government, the former as "the European approach" since it is preferred by most European governments (and Canada). It may disappoint my European friends, but I see reasons to in general prefer the American approach.

1. The Case of Ukraine

Ukraine's 1998 negotiations with the Fund took place against a backdrop of serious balance-of-payments pressure but also political resistance in the United States to a quota increase for the IMF. Members of Congress concerned that IMF funds were going to bail out private creditors warned the U.S. Treasury that they would be unable to support the quota increase if

[3]And encourage changes in the institutional environment designed to facilitate an orderly resolution.

IMF disbursements to Ukraine were used for this purpose. Hence the Ukrainian initiative.

The securities in question were a 375 million hryvnia ($90 million) tranche of hedged treasury bills falling due on September 22nd, 1998. Against the background of serious domestic and economic and financial problems, the Russian crisis made it impossible for Ukraine to roll over these maturing bills. The IMF responded by arranging a $2.2 billion credit, of which $257 million was made available immediately. To prevent its disbursement from being used to pay off private creditors, the Fund set a target for exchange reserves, conformance with which effectively prevented the Ukrainian government from paying back the outstanding portion of this loan in hard currency.[4] The government pressured the creditors to restructure voluntarily (to exchange their treasury bonds for longer-term zero-coupon eurobonds) and payed investors who resisted in local currency which could be used to purchase goods and services domestically but could not be repatriated. Standard & Poors responded by declaring the government in default on its debt.

While this is a straightforward way of bailing in the bondholders, it is not without risk. When a country is declared to be in default, the bondholders can sue, triggering cross-default clauses in the country's other debt instruments and thereby requiring immediate repayment. There is also the risk that a country that follows such policies will find it more difficult to borrow subsequently.

In Ukraine's case, this fallout has been mild. Specifically, the creditors did not sue. But before concluding that the Fund should employ this approach more widely, it is worth noting respects in which Ukraine's situation was special. First, many investors had already accepted a previous government offer to convert their treasury bills into longer-term eurobonds, reducing the

[4]Details in this paragraph and the two that follow come from Clover (1998).

maturing debt to low levels. Second, much of that maturing debt was concentrated in the hands of a small number of large investors, making renegotiation relatively straightforward. Third, the debts in question were domestic-currency-denominated securities, not eurobonds, which are regarded as effectively senior by the markets (see below). Fourth and most importantly, the bonds in question were governed by Ukrainian law, rendering legal recourse unattractive.

For all these reasons, Ukraine's experience does not provide a full test of the approach.

2. The Case of Pakistan

Pakistan's case may be more informative insofar as it involves eurobonds. The country, which has more than some $700 million worth of such bonds outstanding, was driven to consider renegotiating them, along with its much larger debts to official creditors, by a combination of domestic economic problems and the disruption to its market access following its tests of nuclear devices in May 1998.

In the context of the negotiations a country undertakes in the Paris Club for debt relief from its official creditors, it is normal practice for the government to be required to seek comparable treatment from its private creditors. Typically, the private creditors of Paris Club supplicants have been banks (whose credits are renegotiated through the London Club), not bondholders, since low-income countries with an overhang of official debts have found it understandably difficult to borrow on the bond market. Thus, the inclusion of bonds in the comparability provision of Pakistan's Paris Club Minute is precedent setting.[5]

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[5]Paris Club procedures require rescheduling only principal payments falling due in the period covered by a country's IMF program; debts which fall due subsequently are not covered by the comparability provision. This was not a big issue so long as banks were the dominant source

However, it may again be argued that the case is not representative of the situation in which other countries will find themselves. Pakistan's Paris Club debt, at $3 billion, and its total debt to the official sector, about $26 billion, are large multiples of its eurobond debt; thus, only a small fraction of the country's external obligations was subject to these new procedures. In addition, there is the fact that Pakistan's eurobonds are British-style instruments which can be restructured subject the approval of only a majority of the holders, not unanimous consent as is the case with American-style bonds. This limits the likelihood that a restructuring agreement will precipitate legal action against the country.[6]

Be that as it may, bondholders have clearly been worried that countries like Ecuador, Romania and Russia would follow.[7] These worries are heightened by suggestions that making eurobond holders take a hit has become IMF policy. The markets took note of a statement by the Fund's head of mission for Romania when he reportedly stated in March that the release of IMF funds to that country depended on its renegotiating 80 per cent of its international bond payments falling due in May and June.[8] The reaction has been violent. As one financial market participant

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of private finance, most bank loans being of short duration. But with bonds running as many as 20 years to maturity, adapting standard Paris Club treatment to the bond market introduces an element of arbitrariness depending on whether or not a particular bond is about to mature. This point is emphasized by Goyal and Montgomery (1999).

[6]I provide a more detailed discussion below of the distinction between American- and British-style bonds and its implications.

[7]In the words of an S&P analyst, "If this agreement is enforced against bondholders and established a precedent for future Paris Club reschedulings, a layer of protection for sovereign bondholders will be removed." See Luce (1999).

[8]"Depended" is a quote from Ostrovsky and Cook (1999), not from the IMF's Emmanuel Zervoudakis. Ostrovsky and Cook do then go on to quote Zervoudakis as stating that "[W]e should not be faced with a situation where the money from the IMF would be used to repay

put it, this "is the most counterproductive policy initiative that I've seen out of the multilateral organization in a long time in that it jeopardizes the best form of private sector capital for emerging economies."[9]

Evans (1999) explains the market's objection, namely, that requiring comparable treatment of eurobonds will disrupt credit-market access by preventing emerging markets from establishing a clear seniority structure. Among the impediments to market access is the absence of a legal framework establishing which debts have senior status relative to others, like the framework which characterizes the debt structure of U.S. corporations. This lack of a clear understanding of the seniority of their claims discourages lending by risk-averse creditors who value security. It threatens to aggravate the problem of creditor panic that arises when there are doubts about the ability of a country to service its debts. Historically, eurobonds have been treated as senior to other claims, although this has not universally been true, and doubts existed even before recent Paris Club initiatives about whether this would remain the case in the future. Thus, even in Korea in 1997-8, where eurobonds were treated as senior to bank claims ex post, the markets questioned the security of their seniority ex ante, and credit spreads on the secondary market widened dramatically. But the carve-out, Evans argues, was a key factor in Korea's successful return to the credit markets and the restoration of its investment-grade status.[10]

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private creditors."

[9]Michael Cernbalest, portfolio manager at J.P. Morgan Investments, quoted in Sikri (1999).

[10]I analyze this episode in more detail below. Another case is Venezuela in 1994, where the government introduced comprehensive exchange controls and ran arrears to the Paris Club and other creditors, but rationed its foreign exchange reserves so as to continue to service its sovereign bonds in full. Evans concludes that the sovereign carve out and the elevation of

This argument is a specific variant of the general notion that efficient debt contracts balance the ex ante bonding role of debt against the ex post efficiency advantages of restructuring unviable obligations. But these arguments create no presumption that senior claims — eurobonds in the present context — should be immune from restructuring, any more than they create a presumption that senior claims in the domestic context should be exempted from all bankruptcy proceedings. There will be cases, in other words, where comparability provisions have to be applied to eurobonds as well as other claims. At the same time, assuming that eurobond holders will be bailed in threatens to disrupt the efforts of emerging economies to establish a clear seniority structure. As IMF officials are fond of saying, the issue will have to be considered on a case-by-case basis.

3. The Case of American-Style Bonds

Countries are reluctant to suspend debt service as a way of bailing in foreign bondholders for fear that the subsequent restructuring will be costly and difficult. This is likely to be especially true of the "American-style" bonds that dominate sovereign debt markets. Typically, these instruments require the unanimous consent of the bondholders to the terms of any restructuring, exposing the issuer to the risk of legal action by dissidents and threatening to trigger cross-default clauses in its other obligations, in turn activating acceleration clauses requiring those other obligations to be repaid. Most American-style bonds make no provision for a bondholders meeting or other means for investors to collectively represent their interests. Unlike syndicated

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Venezuela's sovereign bonds to senior status were critical for enabling the country to regain capital-market access relatively quickly.

bank loans, American-style bonds lack sharing clauses requiring individual creditors to split with other bondholders any amounts recovered from the borrower and thereby discouraging recourse to lawsuits. There are few counterparts to the central banks and regulators who used their powers of moral suasion to encourage cooperative behavior by the members of commercial bank syndicates in the 1980s.[11] Neither does the issuer have recourse to a bankruptcy filing, under which he would be protected from the threat of lawsuits and in the context of which terms could be imposed on minority creditors.

Those who believe that countries will have to take occasional recourse to suspensions and subsequent restructurings therefore argue that these provisions in bond covenants should be changed.[12] This was suggested by the G-10 in its post-Mexico report, *Resolving Sovereign Liquidity Crises*, and echoed in a series of recent G-22 and G-7 reports and declarations.[13] This February the G-7 placed the issue on its work program for reforming the international financial system with the goal of reaching a consensus by the Cologne Summit in June.

The objective is to make it easier to undertake negotiations -- and therefore to provide an alternative to ever-bigger bailouts -- by adding majority voting, sharing, non-acceleration and collective-representation clauses to bond covenants. Majority voting and sharing clauses would

[11]A non-negligible fraction of foreign bonds are held by commercial banks. And pension funds, mutual funds and insurance companies are also subject to regulatory oversight, if not always with the same intensity as banks. But institutional investors as a group hold only a fraction of the bonds outstanding, in contrast to the earlier situation with syndicated bank loans, rendering moral suasion less effective.

[12]I have argued this in Eichengreen (1999), from which the present discussion is drawn.

[13]See Group of Ten (1996), Group of Twenty Two (1998) and Group of Seven (1998), respectively.

discourage maverick investors from resorting to lawsuits and other ways of obstructing settlements beneficial to both the debtor and a majority of creditors. Collective-representation clauses, which specify who represents the bondholders and make provision for a bondholders committee or meeting, would allow orderly decisions to be reached. To these recommendations some suggest adding minimum thresholds for creditor lawsuits, requiring a certain minimum percentage of creditors, say 10 or 25 per cent, for legal action to be taken against the debtor.[14]

The addition of such clauses to bond contracts is the only practical way of creating an environment conducive to flexible restructuring negotiations.[15] And creating such an environment is essential if the IMF and the official community generally are to make a credible commitment not to run to the rescue of a crisis country with a basket full of funds. It is easy to *say* that the IMF should not bail out debtors, and indirectly their creditors, when the debtors in question are insolvent — and to insist that the debts in question should be restructured instead. But when those debts are American-style bonds, the process of restructuring may be so costly and disruptive to the country and, perhaps, to the global financial system that the Fund cannot credibly promise

[14]See Macmillan (1997). Note the parallel with the minimum percentages that already exist for activating acceleration clauses. In the case of most international bonds, ten to 25 per cent of the bondholders (more precisely, those holding ten to 25 per cent of the principal) can vote to require immediate repayment of all principal and interest due in the event of default. In contrast, syndicated bank loans typically require 50 per cent of creditors to vote for acceleration.

[15]These provisions might also make it easier for governments to obtain creditor forbearance before the fact — to get them to roll over maturing loans instead of forcing a disruptive default. As noted above, if a government seeks to induce bondholders to convert their maturing securities into longer-term bonds by halting (or modifying) repayment of the old obligations, it runs the risk of investor lawsuits. This risk was ameliorated in the case of Ukraine by the fact that the relevant debt instruments were governed by domestic law and in Pakistan's case by the fact that they were British-style instruments. But the same may not be true in the future. New contractual provisions would limit the problem.

to stand aside. In these circumstances, the commitment to extend a bailout may not be time consistent, and, knowing this, creditors will have an incentive to over-lend. Getting a grip on the moral-hazard problem and enabling the IMF to make credible commitments will then require amending the provisions of these bond covenants.

If this is such a good idea, then why have the markets not done it already? One answer is that so long as the markets continue to believe that they will always get a hundred cents on the dollar courtesy of the IMF, they are perfectly happy with the status quo. While this may have been true once (in particular, it may have been true in the wake of Mexico's *tesobono* crisis), it is less likely to be true now that the Fund has signaled that it is at least willing to contemplate alternatives.

Another answer is moral hazard. Neither lenders nor creditors may wish to weaken the bonding role of debt by altering loan agreements in ways that might tempt borrowers to walk away from their obligations.[16] Making it easier for debtors to restructure might cause investors to fear that the debtor was prepared to do so at the first sign of trouble and prompt them to liquidate their holdings of his securities, precipitating precisely the kind of bond-market crisis that the international policy community is concerned to avoid.

But if the bonding role of debt was the be-all and end-all, we would also abolish domestic bankruptcy procedures and reinstitute debtor's prison to prevent domestic borrowers from ever defaulting on their obligations. In fact, in the domestic context we balance the temptation for debtors to walk away from their obligations against the efficiency advantages, for debtor and creditor alike, of clearing away unviable debt overhangs and restoring the financial health of

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

fundamentally viable enterprises.[17] The argument for collective action clauses in bond covenants is an argument for creating an analogous balance in the international bond market. Majority-voting, sharing, and non-acceleration clauses may make it easier to renegotiate defaulted debts, but if this permits a long deadlock to be avoided, there will be no reason for investors to shun bonds with these features. As *The Economist* put it in a recent leader, "the prospect of an orderly renegotiation rather than a messy default might actually make some bonds more attractive."[18]

This is, as they say, an empirical question. One way of answering it may be to observe that there exists an active market in London in British-style instruments incorporating many of these provisions. These bonds are governed by Trust Deed or Fiscal Agency Agreements. They make provision for the Trustee or another agent to call a bondholders meeting and for a qualified majority of bondholders represented at that meeting to agree to a change in the terms of the loan agreement that binds all the bondholders. Under Trust Deed Agreements, bondholders are prohibited from accelerating the bonds or initiating a lawsuit. Thus, these instruments incorporate many of the essential features of so-called collective-action provisions. And there is little evidence that British-style instruments command significantly higher spreads than their American-style equivalents, consistent with the view that "the prospect of an orderly renegotiation rather than a messy default might actually make some bonds more attractive."[19] Moreover, it does not

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[17]Note that this is the same argument made in the previous section for why there may be efficiency advantages to having even senior claims restructured on occasion.

[18]*Economist* (1999), p.21.

[19]Here I refer to some preliminary results of my own ongoing research with Ashoka Mody. The conclusion is tentative, for not only must one control for the observable characteristics of issuers when making the comparison, but one should also control for unobservable heterogeneity insofar as possible. This means taking into account the determinants of the decision of whether or

appear that issuers succumb to the temptation to reschedule at the first sign of trouble. Moral hazard may exist, but there is no sign that it is overwhelming.

A better explanation for the lack of movement may be adverse selection. Adverse selection arises when information is incomplete. It is an intrinsic feature of the international bond market that lenders know less than borrowers about the latter's willingness and ability to pay. Hence, for the same reason that only patients with a high probability of succumbing to a life-threatening illness will find it attractive to buy expensive life insurance, only countries that anticipate a high probability of having to restructure their debts may wish to issue securities with these provisions. The higher the price the markets charge for this insurance (health insurance in the first case, restructuring insurance in the second), the riskier the now-smaller pool of purchasers willing to buy it. There thus may be no price that adequately compensates the seller for its provision. Left to its own devices, in other words, neither market may function.[20]

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not to borrow and, in addition, the determinants of the decision of whether to float an issue with American- or British-style provisions, since neither decision is likely to be exogenous with respect to borrower characteristics. Developing more evidence on these questions should be a high priority. But that evidence which exists does not suggest that the universal incorporation of collective action clauses would significantly increase the cost of credit or cause the market to dry up.

[20]This raises the question of how a market in British-style bonds can exist if asymmetric-information and adverse-selection problems are so severe. It may be that borrowers who can send a credible signal about their lifestyle (that they "don't smoke" -- in the present context, that they are able and willing to service their debts with high probability) are the only ones able to purchase this form of insurance. This interpretation is consistent with the fact that many borrowers on the London market are former members of the British Commonwealth and Empire who are likely to suffer a serious loss of political capital in Whitehall if they suspend debt service payments. These conjectures underscore the need to take very seriously the selectivity problem referred to in the previous footnote when comparing outcomes in the two markets. They also suggest that as the importance of this sunk political capital declines with time, the market share of British-style bonds may shrink (absent some kind of official intervention), compounding the recontracting and credibility problems emphasized in the text.

This problem can be minimized only if potential borrowers move together. The G-10's 1996 report, where the idea of collective action clauses was first mooted, said little about this dilemma. While acknowledging the first-mover problem and suggesting that official support for contractual innovation should be provided "as appropriate," it failed to specify concrete steps to be taken by the authorities. The G-22 and G-7 also acknowledged the problem but again fail to commit to action. The G-22 recommended that unnamed governments, presumably those of the United States and United Kingdom, should "examine" the use of such clauses in their own sovereign bond issues. The G-7 recommended that its members should "consider" them. Treasury Secretary Rubin, in a speech designed to set the tone for the Interim Committee's April 1999 meeting, reiterated that the international community should "encourage" their broader use.[21] But it needs to do more than examine, encourage and consider. Without the introduction of actual legislation and regulations in the creditor countries, progress on this front is unlikely.

One way of pushing ahead would be for the IMF to urge its members to make the inclusion of majority-representation, sharing, non-acceleration, minimum-legal-action threshold, and collective-representation clauses (where these last provisions make provision for an indenture trustee to represent and coordinate the bondholders) to international bonds a condition for admission to domestic markets. It should provide an incentive for countries to do so by indicating that it is prepared to lend a more attractive interest rates to countries that issue debt securities with these provisions.[22] U.S. and UK regulators, for their part, could make the admission of

[21]See Rubin (1999).

[22]A first notable step in this direction is the Fund's new Contingent Credit Facility; the summary of the Executive Directors' discussion of this facility mentions the inclusion of collective-action clauses in bond contracts as one of the factors that may be considered when

international bonds to their markets a function of whether those bonds contain the relevant sharing, majority voting, minimum legal threshold, and collective representation provisions. They could include these same provisions in their own debt instruments.

To be sure, this is no panacea. Private placements would not be affected. New provisions could be added to existing loans only through a voluntary exchange of existing bonds for new ones. Not only might some bondholders resist, but any one country that attempted to first carry out the exchange might be seen as signaling that it was contemplating imminent default and experience a crisis. The average term to maturity of international bonds may be on the order of five years, but some have as long as 20 years to run. All this means the incorporation of sharing, majority-voting, non-acceleration, and minimum-legal-threshold provisions into bond covenants will be slow. But slow progress is better than no progress.

4. The Case of Korea

Ukraine and Pakistan were both cases where there were serious problems with economic fundamentals at home. Absent official assistance, there would have been no alternative to restructuring the debt. Some observers argue that South Korea in 1997 experienced a different kind of crisis: while there were problems with fundamentals there as well, Korea's problem, they argue, was primarily a liquidity crisis.[23] If the country's foreign bank creditors continued to roll

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determining whether countries qualify for access.

[23]See for example Radelet and Sachs (1998). This interpretation is not universally held; other observers, such as Corsetti, Pesenti and Roubini (1998) and Folkerts-Landau and Garber (1999) emphasize important problems with fundamentals. I return to this debate in Section 6 below.

over their maturing loans, in this view, there was no reason that it could not continue servicing them in full. But if the banks all suddenly refused to renew their credits, the country would be forced into default.[24] Once confidence was lost and default became a danger, no bank wanted to be last through the door. While it may have been in their collective interest to stay in, it was still in their individual interest to get out.

This interpretation is lent some credence by the fact that the spread of the Asian crisis to Korea was unexpected. The country had been recovering from a slowdown in 1996, when the prices of semiconductors (its single biggest export item) had fallen sharply.[25] The current account deficit had been brought down from 5 per cent of GDP to a more manageable 2 ½ per cent. At the same time, however, there was an undercurrent of worry that rendered confidence less than complete. Slow growth and depreciated currencies elsewhere in Asia had already created questions about whether the country's progress could be sustained. They heightened fears about the financial difficulties of the country's industrial conglomerates.[26] As business failures mounted, concern spread for the viability of the banks to which the *chaebol* were linked. Korean banks thus found it increasingly expensive to fund themselves abroad. Meanwhile, investors suffering losses elsewhere in Asia liquidated their investments in Korea in order to rebalance their portfolios and

[24]The immediate effect of the deterioration in the capital account would have been to depreciate the exchange rate further. This would have then pushed banks and corporates with large foreign-currency-denominated exposures into default. See Krugman (1999) for a model of the process.

[25]I draw this account from Appendix 3 of Eichengreen (1999).

[26]The Hanbo Group (the country's 14th largest *chaebol*) had collapsed in January 1997, taking $6 billion of domestic bank loans with it. Sammi Steel (the lead firm of the Sammi Group, the 26th largest *chaebol*) failed in March, the Kia Group (the 8th largest *chaebol*) in July.

raise cash, intensifying the pressure on the financial system.

The crash of the Hong Kong stock market and Taiwan's devaluation in October catalyzed these fears, causing reserves to hemorrhage out of the central bank. The negotiation of an IMF package, an exceptional step for an OECD country, brought only temporary respite. Revelations that the country's short-term debt was significantly higher than previously thought, combined with the government's reluctance to close troubled banks, undermined confidence among international investors. In addition, there was the rumor, later shown to be true, that the Bank of Korea had deposited a portion of its reserves with foreign branches of domestic banks, rendering those reserves unusable.

When the stand-by arrangement was approved on December 4th by the IMF's Executive Board, it was expected that the fact of the package and the government's commitment to adjust would reassure Korea's creditors. "Talks with private sector creditors were not envisaged," as the Fund's own post-mortem on the crisis dryly notes.[27] In the event, foreign creditors refused to renew their maturing short-term loans and withdrew their money even faster than the IMF and G-7 governments pumped it in.

The Korean market had been opened asymmetrically: Korean banks, unlike Korean corporations, were permitted to borrow offshore, resulting in the virtual absence of a corporate bond market. This led to the existence of a large amount of bank-to-bank lending. Consequently, it was the foreign banks that ran for the door. Japanese banks appear to have been the first to call in their short-term debts. Kim and Rhee (1998) suggest that because Japanese banks were seen, rightly or wrongly, as particularly well informed about the Korean financial situation their refusal

[27]IMF (1999a), p.37.

to roll over their short-term credits precipitated similar actions on the part of other banks.[28] With short-term foreign debt maturing at the rate of $1 billion a day, it seemed inevitable that Korea's reserves would be exhausted by the end of December.

The week between Christmas and the New Year saw emergency negotiations between the foreign commercial banks with credits to Korea and the new government of Kim Dae Jung, under the stewardship and with the moral suasion of G-7 central banks. US., Japanese and European banks agreed to roll over their loans through March, allowing the government to negotiate a more comprehensive restructuring package. On January 28th Korea and the banks reached an agreement on the rescheduling of $24 billion of debt and on a plan to replace the bank loans with sovereign-guaranteed bonds. $22 billion of interbank claims were converted into bonds with a maturity of one to three years and a spread of 225 to 275 basis points. Korea's short-term debt was reduced from $61 billion at the end of March 1998 to $41 billion at the end of April.

Note that this version of bailing in the private sector did not require bank creditors to "take a hit" — they did not suffer significant losses. They merely agreed to extend the maturity of their claims, first by 90 days and then by one to three years, and for which they were generously compensated. While this outcome did not avert a serious recession, compounded by the high interest rates that the authorities were forced to maintain to restore investor confidence and encourage the markets to take up the bonds, it did facilitate the rapid restoration of credit worthiness. Korea was able to return to international capital markets as early as the May of 1998.

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[28] The alternative explanation for their reaction is not that Japanese banks were especially well informed but that were facing mounting financial problems of their own, forcing them to raise liquidity, due to the failure of Yamaichi Securities, the fourth largest securities firm in the country, and the bankruptcy of several regional and city banks.

But there are good reasons to think that the Korean operation cannot be repeated.[29] Above all, it is unlikely that future obligations will be obligations to banks to the same extent. To be sure, foreign bank credits will continue to be extended and continue to pose special problems to the extent that they are short-term. (Some proposals for dealing with their special nature are considered below.) But in Korea's case, the amount of external debt acquired through the bond and bill market was particularly small, allowing it to be carved out of the rescheduling agreement. The disproportionate importance of bank debt reflected the asymmetric opening of the Korean capital account, as noted above, a policy which greatly heightened Korea's susceptibility to crisis. As other countries come to appreciate (it is hoped) the importance of opening the capital account more symmetrically, this mistake is unlikely to be repeated. In addition, the technological changes powering the forward march of securitization also work in the direction of heightening the relative importance of securitized claims. Bond debt has risen from about 20 per cent of total non-official credit to emerging markets in 1990 to 70 per cent in 1997. Borrowing on internationally bond markets by the private sector has grown rapidly, especially in Latin America.

For both the reasons, then, a large number of heterogeneous creditors and not just a few banks will have to be bailed in during future operations. Bill Rhodes' roladex will no longer suffice as a mechanism for contacting and assembling the lenders. Peer pressure to stay in will be less effective when those creditors are more numerous and heterogenous. Moral suasion by central banks, regulators and governments will operate less effectively on hedge funds, mutual funds and individual investors than on a small number of international banks. The information

[29]See IMF (1999b) for variations on this theme.

needed to verify creditors' compliance with the agreement to engage in concerted lending will be more difficult to assemble when more open capital accounts permit foreign banks to hold a wider variety of marketable securities and allow corporates as well as banks to borrow offshore.[30] This will create difficulties even more severe than those encountered in Korea.

In addition, Korea had the advantage of a relatively strong economy; this made it possible to convince the banks that its plight was primarily a liquidity crisis rather than a deeper problem with fundamentals which justified serious doubts about whether it would be able to service even restructured debts in full. Some problems with fundamentals there may have been, but the country had the advantage of a newly-elected democratic government committed to pushing through economic reforms. Where a government has less credibility and concerted lending is seen as lifting the pressure for economic adjustment and reform, foreign creditors may not be so inclined to stay in. In addition, the sovereign guarantee extended first to Korean banks and then to the bonds into which the bank credits were converted was viable only by virtue of the sovereign's relatively light debt load, an advantage that not all governments will enjoy. Finally, there is the fact that bank-to-bank credits had been run down between October and December, as IMF monies and other funds were used to finance the exit of cash-strapped Japanese institutions. In other words, arranging creditor forbearance in Korea may have been possible only because the provision of IMF finance permitted exit by the creditors least willing to participate.

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[30]The mechanisms put in place to monitor external liabilities and compliance with concerted rollover agreements have, to my knowledge, been limited to the external liabilities of domestic banks.

A similar initiative was taken in Brazil in early 1999.[31] In this case, the effort to secure a commitment by the banks to maintain their lines was undertaken after the devaluation but before the second (post-devaluation) IMF package. That commitment was obtained through negotiations with the Brazilian finance minister and the country's newly-appointed central bank governor and reflected their readiness to pursue policies consonant with price and financial stability. While this approach limited the use of IMF resources to pay off bank creditors, note once again that the banks have not taken a hit — they have not taken losses comparable to those suffered by other investors in Brazilian markets. It is not clear, in other words, that bank creditors have been taught the kind of lesson that will discourage excessive lending in the future.

In Brazil, the authorities went to great lengths to avoid giving the impression that bank creditors might be trapped into involuntary lending. They were concerned that such an impression could prompt the banks, concerned that they would ultimately suffer losses, to cut their lines, thereby precipitating the very crisis that the authorities were concerned to prevent.[32] This points up one of the risks of formalizing procedures to bail in the banks. If national authorities and the Fund signal their intention to regularly contact the banks in times of crisis, demanding that they extend the maturity of their credits along Korean lines, banks valuing their liquidity and fearing default will have an incentive to get out in advance. This suggests that the

[31]Another case that might be mentioned is Thailand in 1997. There the authorities contacted foreign banks resident in Thailand prior to concluding the stand-by with the IMF to obtain assurances that the bulk of their credit lines would be maintained. In the event, the majority of these short-term credits were maintained, although they declined in 1998 as financial problems in the region spread and deepened. It can be argued, however, that the Thai case was exceptional by virtue of the fact that the vast majority of the credits had been extended by a small number of foreign banks with branches and subsidiaries in Thailand.

[32]Institute of International Finance (1999a), p.71.

approach must be used selectively. Where the problem is transparently a liquidity crisis and it should be possible to convince the banks that it is in their collective interest to stay in, IMF intervention to help them coordinate on this more efficient equilibrium will be recognized as in everyone's interest. But where the problem may be one solvency, the news that officials are about to try to rope in the banks will create an additional incentive for them to run. If the Fund takes the advice that it regularize Korean-style operations, then the news that a country has approached the Fund will then work to immediately precipitate a crisis. In the real world, of course, lenders are unsure about which situation they face. Thus, the expectation that officials intend to bail them in will almost always incite them to scramble out. This suggests that the approach should be used sparingly if it is not to prove destabilizing.[33]

5. Commercial Credit Lines

Another approach would be for governments to negotiate standby lines of credit with foreign commercial banks. From the standpoint of the borrowing countries, these credit lines

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[33]Fischer (1998, p.8) puts the point nicely. "But we should put a great deal of weight on the likelihood that the formalization of a requirement that the banks, or any other set of creditors, always be forced to share the financing of IMF programs, would be destabilizing for the international system. If such a condition were insisted on, the creditors would have greater incentive to run at the mere possibility of a crisis. This is a case where a measure that would make it easier to deal with a crisis that has already broken out, would also make crises more likely...This is a real dilemma, one that suggests we should not conclude that the banks will have formally to agree to roll over their debts as an accompaniment to every IMF loan. Rather, we need a differentiated approach that depends on the circumstances of each country; sometimes a formal approach may be a necessity, as in Korea at Christmas in 1997; at other times less formal discussions could serve better; and on occasion, if a country enters a program sufficiently early, there might not be any need to approach the creditors." IMF (1999b) suggests that the low rollover rates that plagued Brazil in October 1998 may have reflected this phenomenon — that banks were bailing out in anticipation of being bailed in.

would provide additional resources to insure against shocks to investor confidence. If foreign investors refuse to renew their maturing loans, the authorities can draw on their credit lines to finance the lender-of-last-resort operations appropriate for dealing with a liquidity crisis. In addition, since bank creditors would no longer be able to eliminate their exposure to the country, they would presumably be better disposed to negotiate a restructuring plan.

Argentina, Mexico, and Indonesia have negotiated facilities with international banks that, in return for a commitment fee, allow them to draw hard-currency credits. These facilities omit the no-adverse-material-change clause that typically permits banks to back out of an agreement in the event of a crisis. Argentina's agreement with 13 commercial banks provides $7 billion in stand-by credits through a repurchase facility (its drawings are collateralized by the deposit of an equivalent amount of peso-denominated government bonds). The Mexican facility, in contrast, is a pure credit line. Mexico drew its in September 1998 in the wake of the Russian crisis. Indonesia made two drawings on its stand-by facilities, totaling $1.5 billion (most recently in April 1998).

That these credits are a form of insurance again raises the issue of how adverse selection is overcome. Argentina, Mexico and Indonesia's success in purchasing this insurance suggests that the problem of asymmetric information that might otherwise cause the market to break down can be overcome at least partially by the posting of collateral (as in the Argentine case, where the value of that collateral is enhanced by the country's currency-board law) and by other policies that help to signal credit worthiness. That these countries succeeded in negotiating these arrangements suggests that at least some other countries showing evidence of institutional reform and a record of strong policies could do the same. But given that other countries lacking these advantages will not be able to signal their credit quality so easily, this option may not be available to all.

Insurance unavoidably creates the danger of moral hazard, so those who advocate the use of such lines (e.g. Feldstein 1999) need to worry about the incentive effects. These arrangements are essentially unconditional; in contrast to IMF loans, access is not contingent on the country agreeing to specific adjustment measures. Consequently, access to additional funds may encourage some governments to engage in further risk-taking and to put off adjustment, digging themselves a deeper hole. The "penalty rate" they pay to draw these lines may be some deterrent, but there remains the question of whether it is enough. The strong steps Argentina and now Mexico are taking to strengthen their institutions and policies provides some reassurance that they will not succumb to these temptations. But it is not clear that the same will necessarily be true of other countries.

A further weakness of these arrangements is that the banks will be able to hedge their exposures. At the same time they provide additional credits, they can draw down their other exposure to the country or sell short government bills and bonds. The sell-off in the Mexican bond market that occurred when that country's government drew its lines in the fall of 1998 may have been an instance of this effect. Taken to an extreme, this "dynamic-hedging" argument suggests the country will have no additional financial resources for propping up its banking system and coping with the other consequences of a crisis. The less extreme version is that countries relying on this technique may have less insurance than meets the eye.

Thus, while commercial credits lines are not a bad idea, they are likely to be available only to countries with relatively strong policies, and the amount of money they make available may be less than otherwise supposed.

6. The Option of Universal Debt Rollover Options

Willem Buiter and Anne Sibert (1999) argue that liquidity crises could be usefully addressed by including a debt-rollover option in all foreign-currency denominated instruments, private and sovereign, long-term and short-term, marketable and non-marketable, including overdrafts and credit lines. Whereas liquidity crises affecting domestic-currency-denominated instruments can be dealt with by the standard lender-of-last-resort mechanism, foreign-currency-denominated loans require separate treatment since the domestic central bank cannot print foreign currency. Buiter and Sibert propose requiring the inclusion of a "universal debt-rollover option with penalty" (UDROP) in all foreign-currency-denominated loans and credits.

Under this proposal, the borrower at his discretion would have the option of extending a maturing debt for a specified period (say, three months). While the regulatory authorities would mandate the inclusion of this option in all debt instruments, its precise terms could be negotiated between the debtors and creditors themselves. In particular, nothing would prevent the borrower and lender from stripping the rollover option from the loan and trading it independently.[34]

To deal with the potential for moral hazard and to prevent the borrower from exercising the option under orderly market conditions, Buiter and Sibert propose forcing a debtor invoking

[34]The fact that bondholders already purchase credit derivatives to insure their portfolios against existing possibilities that debt service and principal repayment might be interrupted suggests that they might well respond in this way to the introduction of UDROPs. Of course, a borrower repurchasing his own UDROP would then acquire another (in this case, contingent) foreign liability, which he would have to cover by issuing yet another UDROP. It is not clear that an active secondary market would develop in the presence of this additional constraint.

the option to compensate the lender at a penalty rate. The option could be invoked only once. In consequence, a borrower who was insolvent would not be sheltered from the need to restructure his debts at the end of the rollover period. Thus, UDROPs should be thought of as complements to rather than substitutes for collective-action clauses. UDROPs are designed for liquidity crises whose resolution requires only a temporary breathing space until confidence returns, collective-action clauses for solvency problems that require write-downs and restructurings.

Readers of this paper will be now be alert to the adverse-selection problem — that if the option was voluntary, only borrowers with a high likelihood of having to invoke it would be prepared to pay the penalty rate and the higher cost of contracting loans that include this contingency.[35] Adjusting the penalty rate might not solve this problem, since with a higher penalty rate the option would be attractive only to a subset of still riskier borrowers. If adverse selection was sufficiently severe, no interest rate might compensate the lender for his risk, in which case no rollover options would be observed.[36] Hence Buiter and Sibert recommend mandating universal adoption of the rollover option to solve the adverse selection problem.

The other problem to which readers will now be alert is the possibility that measures like

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[35]Again, this explains why such options, even if they would be efficient, have not been developed by the markets.

[36]In principle, safe borrowers should be able to signal their type by putting up additional collateral as a condition of the loan. (Low-risk borrowers should be more willing than high-risk borrowers to put up collateral, since there is a lower probability that their collateral will be called.) This, of course, is a specific application of the general proposition that collateral can be used to attenuate adverse selection in credit markets. The problem, noted above in the context of commercial credit lines, is that many emerging market borrowers do not have attractive collateral to offer, either because exchange market problems prevent domestic assets from being converted into foreign currency at reasonable rates when collateral is called or because their legal systems make collateral difficult to attach.

this one designed to moderate the effects of crises may have the perverse effect of precipitating additional crises. In the case of UDROPs, it is not clear whether this possibility is real. The answer would appear to hinge on the kind of crises that countries are likely to encounter in the future.

If the main type of crises coming down the pike are pure liquidity crises, then UDROPs are ideally designed to ameliorate their effects. In a pure liquidity crisis, the debtor has no trouble -- by definition -- in making its debt-service payments in full so long as investor confidence is maintained. But if investors panic and withdraw their funds, the debtor's liquidity is impaired, and he has no alternative to declaring a costly suspension of payments. Since there is no problem with the debtor's fundamentals, in the case of a pure liquidity crisis it can be safely assumed that investor confidence returns after a short period of time. But if the debtor has been forced to suspend payments in the meantime, the costs of that action are not recoverable once confidence returns. The analogy is made with a fundamentally solvent bank that nonetheless suffers a run by its depositors and is forced to close its doors, thereby incurring a loss of reputational and/or informational capital.

Just as it may be in the collective interest of the depositors to sit tight but in their individual interest to queue up at the bank as soon as they see a line being formed, given the bank's rule of first-come-first-served (Diamond and Dybvig 1983), it can be in the collective interest of a country's creditors to roll over their maturing claims but in their individual interest to scramble for the exits if they see other creditors doing likewise, given that the limited availability of foreign reserves similarly creates a sequential service constraint (Radelet and Sachs 1998). In the domestic bank-run context, deposit insurance and, historically, temporary suspensions of the convertibility of deposits into currency are designed to alter these incentives and attenuate their effects. Deposit insurance minimizes the incentive for depositors to run. Temporary suspensions of convertibility allowed banks to avoid having to close down as a result of depositor runs and therefore of having to incur the associated costs. UDROPs are designed to mimic this function in the international setting. They would give the debtor a breathing space of, say, three months, a period of time assumed to be sufficient for the restoration of investor confidence and the resumption of business as usual. They obviate the need to declare a costly default.

Moreover, if the only crises likely to occur are pure liquidity crises, then UDROPs should have the same effect as deposit insurance in reducing crisis incidence. This will be the case if the cost to a foreign creditor of being last through the exit is less in the presence of UDROPs than in their absence. With UDROPs, when a debtor experiences a crisis and invokes the rollover option, its creditors continue to earn interest but now at the penalty rate. At the end of the rollover period, confidence having been restored (by assumption), interest payments continue (now at the normal rate) and maturing claims are rolled over voluntarily or paid off smoothly. But without UDROPs, a debtor experiencing a creditor run will be forced to suspend payments; there will follow a possibly extended period of costly negotiation and litigation, as a result of which the borrower's debt-servicing capacity can be impaired and the creditors may suffer irrecoverable losses. Because the losses to creditors who are late to exit are plausibly lower with UDROPs than without, the likelihood of pure liquidity crises is less.

The dynamics of solvency crises are another matter. Here the costs to creditors who are late to exit are likely to be larger in the presence of UDROPs than in their absence. In the same way that deposit insurance and regulatory forbearance give banks whose balance sheets are impaired the opportunity to roll the dice and gamble for redemption, UDROPs give debtors with serious problems with fundamentals the opportunity to continue for an additional few months with the same old policies, presumably dissipating additional foreign reserves to finance current account deficits (in the case of governments) and incurring additional losses (in the case of commercial banks and corporations). Resources useful for servicing debts having been further depleted in both cases, creditors who fail to get out suffer even larger losses on average with UDROPs than without. This suggests that UDROPs may complicate the maintenance of confidence and aggravate the risk of crises for countries with weak fundamentals.[37]

This rather abstract discussion assumes that investors can tell the difference between solvency and liquidity crises. As the debate over Korea's crisis (footnote 23) implies, this is difficult to do even after the fact, much less in the heat of events. If investors are uncertain and attach a significantly probability to an event being a solvency crisis even if it is in reality a liquidity crisis, then liquidity crises become more likely, not less likely, under the assumptions of the preceding paragraphs.

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[37]Those who argue that market discipline in international financial markets is lax and sporadic — that investors tend to be slow to react to impending problems before responding violently late in the day — may be inclined to applaud anything that gives investors an incentive to be quicker on their feet. If there is no question that a country is headed for the wall, anything that encourages investors to scramble out sooner rather than later may be desirable insofar as it forces the government to apply the brakes. On the other hand, countries that are making one last effort to correct their problems before investors pull the plug will have less time to complete the task. UDROPs which roll over debts for three months would give a country an additional three months to push through the requisite reforms, but this is scant comfort if their presence accelerates the timing of investors' scramble for the exits by more than three months. It is interesting to speculate what the effect would have been had Brazil's maturing foreign debts in 1998 contained UDROPs. Would foreign banks and other creditors have moved even earlier to cut their lines, precipitating a full-blow crisis at the height of the Russian Concussion? Would an earlier crisis have increased or reduced the likelihood of the Brazilian Congress and States accepting the necessary reforms?

This has led to suggestions that the power to activate the option should be delegated to a third party in a position to know, like the IMF. The Fund would activate the UDROP in response to pure liquidity crises but not in response to crises rooted in fundamentals. The incentive to be early through the door and hence the fragility of the finances of countries with fundamentally strong policies would be unambiguously less. The problem, of course, is with the assumption that the IMF is better positioned than private investors to distinguish liquidity from solvency crises.

Additional questions can be raised about whether the IMF is well suited to this task. Among other things, the Fund may have its own loans to the country, making it less than a disinterested party. The Executive Directors represent and receive instructions from their governments, and those governments may be swayed more by political than economic considerations. These issues would have to be resolved in order to rule out the possibility that the markets could be destabilized by the introduction of a universal debt rollover option triggered by the IMF.

7. Putting Puts in Bank Loan Agreements

A more limited version of the rollover option, due to Robert Litan and the U.S. Shadow Financial Regulatory Committee, focuses on the problem for financial stability created by bank-to-bank lending. Short-term credits extended by one bank to another can create especially difficult problems in times of crisis. They can be terminated at short notice. Because they are not governed by formal contracts, renegotiation cannot be eased by altering contractual provisions. Litan et al. (1998) suggest that this can be gotten around if countries adopt laws limiting the terms and conditions under which short-term loans to their banks can be repatriated. They urge countries to enact legislation imposing an automatic reduction of the principal of all foreign currency loans extended to banks in their countries that are not rolled over in the event of a crisis. Foreign creditors could get still out, but only at a loss. The prospect of that loss would strengthen their incentive to stay in, to address their collective action problem, and to restructure the debt.

Serious questions can be raised about this proposal. For one thing, imposing the equivalent of a tax on bank-to-bank lending creates strong incentives for evasion, and specifically for nonbanks to do the borrowing and to pass on the proceeds to banks with which they have a relationship. This is what Chile learned from its experience with holding period taxes on foreign borrowing in the 1990s. So long as the tax was applied primarily to borrowing by financial institutions, there was an incentive for mining companies to borrow abroad and onlend the proceeds to domestic banks. So long as the measure was applied to portfolio investments by foreigners but not to foreign direct investment or trade credits, there was an incentive for companies to identify their foreign borrowing as such and to again onlend the proceeds to local banks. In other words, it is not clear that this partial measure would have much impact on the magnitude or maturity of capital flows. To be effective and not be circumvented by the relabeling of debt contracts, such schemes need to apply to all foreign-currency-denominated liabilities.

Whereas Buiter and Sibert's scheme would compensate creditors whose claims were involuntarily rolled over at a super-normal rate, that of Litan et al. would not. The fear of being late through the door would consequently be greater, as might be the risk of precipitating additional crises.

8. Implications for the IMF

Where a country has serious problems with fundamentals, its external debts are concentrated in the hands of a relatively small number of banks or bondholders, and there is concern that official assistance might be used to bail out private creditors, the Fund should consider encouraging the country to reschedule and give it leverage to do so by conditioning its disbursements on the successful conclusion of negotiations. This approach was employed successfully in Ukraine. Unfortunately, it is not clear that the necessary preconditions for its viability -- specifically, a cohesive group of creditors -- will remain in place as the securitization of financial markets proceeds.

This policy is tantamount to lending into arrears, which remains controversial.[38] In fact, lending into sovereign arrears is something that the Fund has long done when a government is making a concerted effort to adjust and has shown good faith in its negotiations with the creditor community. A September 1998 decision by the Fund's Executive Board broadened the policy to from bank loans to bonds and other nonbank credits.[39] And the G-7's October 1998 statement on strengthening the international financial architecture called on the Fund to "move ahead, under carefully designed conditions and on a case by case basis, with its recently reaffirmed policy of lending into arrears."

The qualifiers in this last sentence are important. A regular policy of lending into arrears would make it too tempting for countries to fall into arrears. And a policy of regularly requiring countries to renegotiate their commercial debts as a precondition for official assistance might

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[38]See for example the criticism of the policy in Institute of International Finance (1999b).

[39]Institute of International Finance (1999a), p.76.

precipitate additional crises, as banks or bondholders scrambled out of the country in anticipation of this eventuality. The very news that a country was approaching the Fund might prove destabilizing. Creative ambiguity is a watchword for careful central bankers. It should similarly be the watchword for efforts to bail in the private sector.

The IMF could also encourage governments to mandate the adoption of collective action clauses and universal rollover options by keying its lending rates to the policy and conditioning its programs on their compliance. Differentiating lending rates on the basis of whether or not a country had mandated the incorporation of collective-action clauses and UDROPs in its loan agreements would require some fast footwork on the part of the Fund's Legal Department. Conditioning access on compliance is more difficult, since it is unlikely to be time consistent to tell the countries who find it most difficult to restructure their debts that they will not have access to IMF resources.[40]

It has been suggested, in connection with discussions of private-sector burden sharing, that it would be desirable to give the IMF the power to declare a stay on payments by amending Article VIII.2(b) of its Articles of Agreement or by giving that article a definitive reinterpretation. Article VIII.2(b) allows countries to apply exchange controls in response to balance-of-payments problems without violating their obligations to the IMF. For it to give sanction to a standstill on external debt as opposed to the imposition of exchange controls, it would have to be given an authoritative reinterpretation by the Fund's Executive Directors or be amended with the consent of countries commanding 80 per cent of the Fund's voting power.

[40] At the same time, it is worth recalling, as noted above, that the introduction of collective action clauses is one of the preconditions for access to the IMF's new Contingent Credit Facility noted in the Chairman's Summing Up of the Executive Board discussion of that facility.

It is not clear what amending Article VIII.2(b) would achieve. IMF sanction would not attenuate any adverse selection created by the introduction of collective action clauses, since the IMF signal could only be issued after the fact. If the Fund's role was to trigger a pre-negotiated rollover option, as described above, then a simple statement by the Managing Director or the Executive Board would do. If the problem was to impose a payments stay on instruments that did not feature a rollover option, then there is no obvious reason for the Fund to intervene; there is no reason, in other words, why a country could not suspend payments unilaterally, as countries have done throughout history. To be sure, IMF statements that a country's default was "excusable" might limit the damage to its creditworthiness.[41] By helping the markets distinguish cases of excusable and inexcusable default, it would limit the moral hazard introduced by the addition of collective action clauses. But the IMF's management and directors are already in a position to issue assessments of whether the actions taken by member governments were wise or justified under the circumstance. Again, it is not obviously necessary to amend Article VIII.2(b).

Given the difficulties with all proposals for bailing in the private sector, there is a role for the IMF above all in promoting the pursuit of policies that prevent the problem from arising in the first place. Better macroeconomic policies can minimize the incidence of currency crashes that impair the finances of banks and corporations with unhedged foreign exposures. Greater exchange rate flexibility can encourage banks and firms to hedge those exposures, preventing sharp movements in currencies from being transformed into financial crises. Debt-management policies which avoid excessive dependence on short-term debt and clumping of maturities can

[41]Grossman and van Huyck (1988) show that defaults which occur under different circumstances may have very different implications for creditworthiness so long as the markets can distinguish those circumstances.

help to avert debt runs and minimize refunding risk, minimizing the need for commercial credit lines and UDROPs. Chilean-style holding period taxes on capital inflows can be used to minimize short-term foreign funding, by the banking system in particular, of a sort that places financial stability at risk. The adoption of transparent bankruptcy laws and independent judiciaries can prevent problems of illiquidity and insolvency from cascading through the economy as panicked investors scramble for collateral. It is trite but true -- whether the topic is bailing in the private sector or any other aspect of financial crisis -- that prevention is the better part of cure.

9. Conclusions

The IMF and the international community generally have been stumbling toward ways of bailing in the private sector. New approaches have been explored in Korea, Ukraine and Pakistan. The official community has encouraged the adoption of new provisions in loan contracts to facilitate orderly restructurings and to create workable alternatives to ever-bigger IMF bailouts. Governments have proposed and international bodies have contemplated more far-reaching options, including rules for IMF lending that would impose formulas for bail-ins and amending the Fund's Articles of Agreement to provide for an officially-sanctioned standstill on payments. Academics and policy wonks have suggested even more ambitious options.

My review of this experience points to two conclusions. First, there will continue to be cases, as in Ukraine and Pakistan, where even senior claims will have to be restructured, and others, like Romania, where they will not. While countries have an interest in establishing a clear seniority structure, the international community has an interest in containing the moral hazard that would result if senior claimants were automatically protected from haircuts. The uncomfortable fact is that the IMF cannot pretend to be uninvolved in this decision. So long as it is in the business of lending, it will have to decide whether to lend enough to let senior creditors off the hook.

Second (and implicit in the previous conclusion), efforts to bail in the private sector will have to proceed on a case-by-case basis. Rules specifying the modalities and circumstances in which creditors will be bailed in (especially rules that subject investors to serious haircuts in order to redress the moral hazard problem) run the risk of precipitating additional crises. The news that a country was approaching the Fund would then create the expectation that the Fund was preparing to bail them in, and the creditors would have an incentive to rush for the exits. Dealing with the problem on a case-by-case basis may seem arbitrary and unwieldy, but it at least does not pose the same danger of aggravating the crisis problem. Market participants have a point when they emphasize the importance of having debt contracts repaid and the advantages of a clear seniority structure. European and Canadian officials have a point when they stress the advantages of a transparent, rules-based approach to private-sector burden sharing. But both groups have yet to develop a viable alternative.

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