International Economic Policy in the Wake of the Asian Crisis

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The Asian crisis was the third financial crisis of the 1990s. Even more than its predecessors it raised questions about the international community's approach to crisis prevention and crisis management. It led reservations to be voiced, and not only in Asia, about full and unfettered international capital mobility and about the policy priorities of the International Monetary Fund.

This paper discusses the policy challenges posed by the Asian crisis. It starts in Section 1 by reconsidering the controversy over capital mobility. Even before the crisis struck, the IMF was on record as favoring the liberalization of capital flows and had proposed amending its Articles of Agreement to make the promotion of capital account liberalization a purpose of the Fund and to give it jurisdiction over restrictions on capital movements. In the wake of a crisis characterized by volatile financial flows and contagious currency crises, capital mobility is increasingly seen as a mixed blessing. There is a feeling, especially in Asia, that amending the Articles giving the Fund jurisdiction over capital account restrictions would be a bridge too far. The first part of the paper therefore seeks to reconcile the fundamental case for international capital mobility with Asia's less-than-heartening recent experience.

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[1]Prepared for the East-West Center/Korean Development Institute Conference on the Korean Crisis, Honolulu, August 10, 1998. This paper builds on observations from a year spent at the IMF, which coincided with the Asian crisis. I owe a special debt of thanks to my colleagues there for stimulating input. It goes without saying that they do not necessarily agree with the views expressed.

Section 2 draws lessons for country policy. It focuses on the implications for three issues at the heart of the Asian crisis: how to enhance the stability of banking systems, the connections between financial regulation and exchange rate policy, and the efficacy of capital controls.

Section 3 turns to the IMF. Here too the questions are well known. Have Fund programs been too restrictive for countries whose problems reflect flaws in their domestic financial systems rather than excessively expansionary monetary and fiscal policies? Should the Fund modify its approach to the liberalization of capital flows? Should it limit itself to the traditional areas of monetary and fiscal policy, or does it need delve more deeply into financial regulation, competition policy, and corporate governance?

1. The Cautious Case for Capital Mobility

In the wake of turbulence like that which afflicted the emerging markets starting in 1997, it is easy to lose sight of the fundamental case for international capital mobility. This section first reviews that case before considering complications that render capital mobility a two-edged sword.

The Fundamental Case for Capital Mobility

A long list of theoretical analyses has established the conditions under which international capital mobility can raise welfare in the borrowing and lending countries. Flows from capital-abundant to capital-scarce countries raise world welfare on the assumption that the marginal product of capital is higher in the lending than the borrowing country. Free

capital movements thus permit a more efficient global allocation of savings and direct resources toward their most productive uses, promoting growth and enhancing welfare.

Capital mobility also creates opportunities for portfolio diversification and risk sharing. Individuals, and for that matter countries, can borrow when incomes are low and repay when they are high, smoothing the time profile of consumption. By holding claims on countries other than the one in which they reside, households and firms can diversify away many of the risks associated with disturbances that impinge on their home country alone. Companies can protect themselves against cost and productivity disturbances by investing in branch plants in several countries across which such shocks are imperfectly correlated. Capital mobility can thereby provide investors the ability to achieve higher risk-adjusted rates of return.

The empirical literature has established that countries which have liberalized their financial markets tend to grow faster than countries which have not. King and Levine (1993a,b) analyze a cross section of countries, establishing that financial depth, as proxied by the liquid liabilities of the financial system relative to GDP, is a significant predictor of the rate of economic growth. Time-series studies (e.g. Neusser and Kugler 1996) confirm that causality appears to run from financial-sector development to economic growth rather than the other way around. While the bulk of this literature focuses on domestic financial liberalization rather than freedom of international capital flows, there is reason to think that the two go together. The freer are individuals and intermediaries to engage in domestic financial transactions, the easier they will find it to evade restrictions on their international

financial transactions, and the more costly the authorities will find the operation of capital controls.

Given these presumptions, the evidence on the effects of capital mobility is surprisingly weak. Cohen (1994) finds that foreign finance has a significant impact on growth by raising the level of investment and as a channel for knowledge spillovers but that neither effect is large. Alesina, Grilli and Milesi-Ferretti (1994) relate the presence or absence of controls to the rate of per capita GDP growth in a sample of 20 industrial countries but find only a small and statistically insignificant effect. Grilli and Milesi-Ferretti (1995) extend the sample to 61 industrial and developing countries and distinguish restrictions on payments for capital transactions, multiple currency practices, and restrictions on payments for current transactions (which are often used to evade restrictions on capital transactions). Again, they find no robust correlation between controls and growth. Rodrik (1998) reports comparable results for a larger sample of developing countries. Using a different estimation strategy, Bordo and Eichengreen (1997) also find little evidence of an effect for the industrial countries. For developing countries, however, they find some evidence that restrictions on external transactions depress growth when they take the form of relatively distortionary current account restrictions and multiple currency practices, although the effect is small. On balance, then, there is at least some sign that controls have an adverse effect on growth when they are most distortionary and when they are imposed by low income countries that stand to benefit the most from access to international financial markets. But that evidence is far from overwhelming. As the above authors make eminently clear, it is open to competing interpretations.

The Risks of Capital Mobility

Why might this evidence be so weak? The obvious explanation is that capital mobility has risks as well as returns and that whether the costs or benefits dominate depends on how effectively the risks are managed. Exposure to capital flows reduces the autonomy for monetary policy, forcing the authorities to choose between targeting the exchange rate and targeting the interest rate, and constrains fiscal policy by making it difficult for a country to unilaterally raise taxes on financial incomes, transactions and wealth. Flows from developed to developing countries can fluctuate for reasons beyond the control of the recipients, for example because a decline in interest rates in the major money centers ignites a search for yield, or because financial problems in neighboring countries precipitate a contagious loss of confidence in emerging markets. Large inflows can aggravate macroeconomic imbalances, fuel overlending by loosely regulated financial institutions, and encourage inflation, construction booms, and economic overheating generally unless the authorities take prompt corrective action.[2] Large outflows can create intense pressure for exchange rate depreciation, impose reserve losses on governments and central banks seeking to defend the currency's external value, and undermine the solvency of banks and firms with large unhedged foreign exposures. All of these problems can disrupt economic growth.

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[2] In the form of, inter alia, a sharp contractionary shift in the stance of fiscal policy. Other instruments the authorities might use to moderate the impact of capital inflows include sterilized intervention, contractionary open market operations, higher reserve requirements on

banks, and actively managing public-sector deposits.

While much of this is conventional wisdom, the Asian crisis has placed these dangers in relief. It has underscored that capital flows occur in surges. Studies had already established the responsiveness of emerging-market capital flows to the level of interest rates in the money centers.[3] In the most recent episode this phenomenon took the form of the "carry trade." Investors were encouraged to establish and maintain positions in (but not limited to) fixed-income markets by the low level of interest rates in leading financial centers. They funded themselves in mature markets and invested in Asia, the ample credit of which they made use reflecting the low level of interest rates in Japan and the United States. Using low-cost funding to buy high-yielding East Asian fixed-income securities was attractive so long as exchange rates did not move. In the case of Thailand, in 18 of the 20 quarters through 1997-II this carry trade was profitable, the pegged exchange rate ruling out exchange-rate surprises.

The exchange rate peg is critical to this story, comprising as it did a key link in the chain of implicit guarantees. The government purported to guarantee that the exchange rate would not be devalued, relieving foreign investors of exchange risk. It purported to guarantee all bank deposits, relieving foreigners lending short to the financial system of all credit risk.

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[3]Lower interest rates both prompted a search for yield by investors and increased the debt-servicing capacity of already indebted borrowers. On the role of global interest rates in the resumption of lending to emerging markets in the early 1990s, see Calvo, Leiderman and Reinhart (1993) and Eichengreen and Fishlow (1996).

As emphasized by Dooley (1996), McKinnon and Pill (1996) and Krugman (1997), these distortions created a one-way bet encouraging excessive capital inflows.

But, as in earlier episodes, the situation was not sustainable. The carry trade was susceptible to being disrupted by a modest move toward more restrictive global credit conditions. In the spring of 1997 this took the form of interest rate increases in the United Kingdom and Germany. Japanese long rates moved up from 2 to 2½ percent when the outlook for the Japanese economy appeared to brighten, and short rates firmed with talk that the Bank of Japan might raise rates by the end of the year.[4] Together with the appreciation of the dollar against the yen, which undermined the competitiveness of Asian countries that placed heavy weights on the dollar in their basket pegs, a slowdown in the global electronics industry, and mounting problems in some of the recipient countries, most notably Thailand, these developments curtailed the carry trade. The ability of the Thai government to honor its exchange rate commitment was cast into doubt. International banks and other investors closed out their long positions in Asian fixed-income securities and began shorting the baht as Thailand's vulnerability became apparent. What had previously been an excessive capital inflow became an unmanageable capital outflow.

[4]See Aliber (1998).

The Asian crisis provided impressive evidence of the potential for volatility in foreign exchange markets. While some observers suggested that certain Asian currencies, most notably the baht, were 5 or 10 per cent overvalued prior to the crisis, no one anticipated that the baht or the Indonesian rupiah might lose 40, or 50 or even (in the latter case) 80 per cent of its value.[5] No one foresaw that the volume of foreign exchange transactions would implode so dramatically. The reasons for these sharp exchange rate movements and for the dramatic reversal in the direction of capital flows remain unclear. Some accounts invoke extrapolative expectations and herding on the part of incompletely informed investors, describing the meltdown in terms analogous to a self-fulfilling bank run.[6] Others point to positive-feedback effects of the scramble for cover by firms and corporates with unhedged foreign currency exposures. Drawing on the older literature on contractionary devaluation (e.g. Krugman and Taylor 1978), others have suggested that depreciation, by weakening the financial condition of banks and firms, engendered expectations of further depreciation. Still others emphasize the authorities' ill-advised intervention strategy, through which they blew away most of their reserves, leaving them with few resources for intervening to limit the depreciation of the rate. Finally, some critics point to the authorities' failure to substitute

[5]For retrospective evidence, see Chinn (1998).

[6]See Radelet and Sachs (1998).

another transparent and credible monetary policy strategy for their discredited exchange rate peg and to follow through with financial- and corporate-sector reform.

Another striking aspect of the Asian crisis was the virulence of the contagion. Studies had already documented the existence of contagion in foreign exchange markets -- of the tendency for a crisis in one country to raise the probability of a crisis in a neighboring country even after controlling for the latter's economic and financial fundamentals.[7] But Asian experience underscored the force with which contagion could spread. It suggested that contagion tended to operate most powerfully within the region where the instability originated.[8] And it revealed that the economies most vulnerable to infection were not those which traded with the afflicted country or competed with it in common export markets but rather those with superficially similar macroeconomic and financial characteristics.

What are the implications for capital account liberalization? None of the preceding undermines the fundamental case for liberalizing international capital flows. The analogy with the case for liberalizing international trade retains its validity. That said, the volatility of capital movements, reflecting information asymmetries that provide a rationale for herding in financial markets, creates a case for limiting cross-border financial flows, especially short-term flows, as a form of insurance against adverse outcomes. Similarly, the presence of other distortions, such as implicit government guarantees for well-connected domestic banks which the latter pass on to their foreign depositors, can result in excessive inflows. In response, a

[7]See Eichengreen, Rose and Wyplosz (1997a, b).

[8]Although it also established that it need not be limited to that one area.

capital import tax can be an optimal second-best form of intervention to be maintained until the distortion in question has been removed and first-best policies can be put in place.

These are rationales for Chilean-style deposit schemes, which require investors bringing funds into the country to make a 12-month non-interest-bearing deposit in the amount of 30 per cent of their investment. This does not mean backing away from capital account convertibility, for while convertibility means the removal of burdensome administrative restrictions on international borrowing and lending, it need not inhibit the use tax and tax-like instruments to offset other distortions which encourage excessive short-term borrowing and lending. But it does suggest that any transition to capital account convertibility should only be undertaken in a prudent, cautious, and measured way.

2. Lessons for Country Policy

This section uses the preceding analysis as background for discussing the challenges facing national policymakers following the Asian crisis. It focuses on the linkages between exchange rate policy and prudential regulation, options for enhancing the stability of banking systems, and strategies for the progressive opening of capital accounts.

Linking Financial Regulation and Exchange Rate Policy

A number of arguments have been advanced for why countries should harmonize financial regulation with exchange rate policy. Most of these suggest that countries wishing to limit exchange rate flexibility should maintain stricter prudential standards for their financial systems. Central banks and governments have less capacity to conduct lender-of-

last-resort operations when they are operating a currency peg.[9] In the limit, a currency-board peg establishes a rigid link between the supply of base money and the stock of international reserves. While Bagehot's rule for a central bank facing a bank run is to lend freely at a penalty rate, a government operating a currency board may have little capacity to do so.[10]

[9]See e.g. Sachs (1994).

[10]To be sure, governments can take steps to relax this constraint, at least to an extent. Thus, Argentina while operating a currency board has negotiated commercial lines of credit with a syndicate of international banks to be drawn on precisely in periods when the authorities need additional resources to bank last-resort lending. Similarly, Mexico has negotiated a smaller credit line. But the general point, that lender-of-last-resort capacity is likely to be more limited where exchange rates are rigidly pegged, remains.

It follows that such countries may want to limit the need for last-resort lending by holding their banks to higher prudential standards. They may wish to mandate higher reserve, capital and liquidity requirements despite the negative implications of those measures for the competitiveness of their banking systems.[11] Argentina is a case in point. Following the Tequila shock of 1994-5, it adopted a 15 per cent across-the-board liquidity requirement for all deposits of less than 90 days. It adopted risk-adjusted capital asset requirements nearly half again as high as the Basle standards. The government announced a program of limited, privately-financed deposit insurance to reduce the risk of bank runs due to the contagious loss of depositor confidence. While both self-financed deposit insurance and exceptional liquidity and capital requirements reduce the international competitiveness of the banking system, it can be argued that this was a necessary price to pay for a country whose entire economic policy strategy was organized around a rigid currency-board peg.[12]

[11]Taken to an extreme, as some authors do, this is the argument that countries with currency boards should also operate systems of narrow banking. I return below to the advantages and disadvantages of narrow banking.

[12]Allowing an increase in bank concentration is another means to this end. (A further prudential effect of bank concentration operates through the induced increase in the franchise value of bank licences.) This approach has been employed by Hong Kong. See Freris (1991).

Argentina's experience is not alone in suggesting that the Basle capital standards may not provide an adequate basis for managing banking risk in emerging markets. But the present discussion suggests that the relevant distinction is not so much between mature and emerging markets as between countries operating more and less flexible exchange rate regimes.

Another rationale for linking prudential regulation with the exchange rate regime is suggested by Akerlof and Romer (1995). When financial institutions receive explicit or implicit government guarantees, there may be a temptation for owners to strip the intermediary of its net worth, leaving recapitalization to the authorities. Akerlof and Romer argue that opportunities for doing so will be enhanced by the maintenance of a temporarily pegged exchange rate. If the exchange rate is expected to depreciate by 10 per cent over the holding period, the domestic-currency interest rate will exceed the interest rate on otherwise comparable foreign-currency loans by 10 per cent.[13] It may then be possible for owners to borrow in foreign currency, to extend domestic-currency loans to residents, and to pay out the high accounting income to shareholders. When devaluation eventually occurs, the domestic borrower will be left unable to repay his loans, threatening the viability of the financial intermediary, but by then the high accounting earnings will have been paid out, and it will be left for the authorities to recapitalize the failed financial institution.[14] In the words of the

[13]Even if there is a bankruptcy premium on foreign loans to the domestic bank, that premium will be less than actuarially fair when lenders have confidence that the government will assume responsibility for the liabilities of the bank.

[14]As noted, this is an equilibrium in the sense that the failed financial institution's foreign debt is repaid, encouraging foreign investors to lend again.

authors, “The preceding outline suggests how fixed exchange rates and misleading accounting can encourage a pattern of bankruptcy for profit that ultimately results in an economy-wide financial crisis.”[15]

[15]Akerlof and Romer (1995), p.19.

Here again, the obvious solution is stricter prudential regulation. Banks and firms operating in an environment of pegged exchange rates where the scope for such activity is great should be made to match the currency denomination of their assets and liabilities, required to use economically meaningful accounting practices that set aside reserves for contingent liabilities, and forced to satisfy higher capital requirements so that owners are deterred by significant losses in the event of bankruptcy. Where such measures are difficult to implement, greater exchange rate flexibility is to be preferred.[16]

This then raises the issue of coordinating the move to greater exchange rate flexibility with efforts to strengthen the financial system.[17] If bank balance sheets are weak and financial institutions have large open foreign positions, they may be unable to manage a sudden increase in exchange rate variability. A sudden depreciation may provoke bank insolvencies, undermine confidence in the economy, and lead to further currency depreciation and further bank insolvencies in a vicious spiral. This creates an argument for strengthening the position

[16]Another option, not incompatible with the alternatives, is to remove the implicit government guarantee so that foreign lenders build an appropriate bankruptcy premium into their loans. See McKinnon and Pill (1996), Dooley (1996), and Krugman (1997). This, obviously, is easier said than done.

[17]Known in the literature as the problem of exit strategies -- see Eichengreen and Masson (1998).

of the banks -- for cleaning out nonperforming loans, raising capital and liquidity requirements, and tightening restrictions on open positions -- before exiting the peg.

In theory, there should be an interior solution to this optimization problem, as for any well-behaved economic problem. The marginal benefits of additional bank restructuring presumably decline over time. The marginal costs of delaying the exit presumably rise. The optimal time to exit is when the marginal benefits of waiting are about to exceed the costs. This time, while positive, is presumably finite. But the situation is more complicated when these two relationships are neither independent nor well-behaved. Say that the longer the authorities wait to relax the currency peg, the less their incentive to sink the costs of cleaning up the banking system. Or say that the longer the authorities defend the exchange rate with a policy of high interest rates, the weaker the banking system becomes, and the more costly and time consuming it becomes to clean it up. Delay can then be a recipe for disaster.

Financial Rescues and the Problem of Banks

The Mexican crisis had already led observers to predict that the dominant source of financial crises in emerging markets was likely to be weak banking systems and weak bank supervision.[18] In Thailand, the failure of the finance companies appears to have been the trigger that set off the run on the currency. In other Asian countries, the timing of events was the reverse -- currency depreciation undermined the balance-sheet positions of banks and bank customers with unhedged foreign exposures, helping to precipitate a run on the banking

[18]See for example Goldstein (1996) and Kaminsky and Reinhart (1996).

system, which then further weakened the position of the banks -- but the weakness of financial systems and financial supervision was again key.

Lax supervision was a key factor in the surge of capital flows into Asia in the years leading up to the crisis. The carry trade that was the vehicle for this flow of funds was sustained into 1996 and 1997 by the diversification of European banks into middle-income Asia. European banks saw their business depressed by the slow growth of a European economy weighed down by fiscal consolidation and their margins squeezed by the intensification of cross-border competition. European banks enjoying implicit guarantees, including state savings banks in Germany and institutions like Credit Lyonnais in France, moved most aggressively into high risk, high yielding Asian loans. They were late to the party: even while American banks were winding down their exposure to Asia, European banks were continuing to build up their's. Japanese banks, for their part, invested in high-yielding Asian securities as a way of gambling for redemption.

Much of this was bank-to-bank lending. Asian banks enjoying implicit guarantees of their own had an incentive to fund themselves abroad and invest in high-yielding securities. Hence the stories of Korean banks obtaining funds from Japanese banks and investing in Indonesian corporate paper, Russian GKOs, and Brazilian Brady bonds. And Asian governments, having long regarded their financial systems as central to their national economic development strategies, were loath to let their banks fail. Aware of the tendency for governments in this position to guarantee the liabilities of distressed domestic financial institutions, international investors were not deterred from lending by the riskiness of the banks' assets.

Once again, the solution to this problem is stricter prudential supervision and regulation of banking systems in both the lending and borrowing countries.[19] Supervisors should monitor the adequacy of internal controls, internal and external audits, loan and investment policies, and risk-management techniques. They should verify that banks have adequate information systems in place to identify loan and investment concentrations in their portfolios. They should make particular efforts to prevent abuses associated with connected lending and require banks to lend on an arm's-length basis. They should require realistic valuation of bank assets while imposing appropriate capital adequacy, liquidity, credit diversification, foreign exchange exposure, and nonbank activity requirements and limits.[20] Bank supervisors should be granted political independence, financial autonomy, legal immunity, and the right to conduct on-site inspections. Banks for their part should be required to provide adequate and accurate information to their supervisors, who should have the power to impose remedial and punitive measures, including revocation of the license to operate, in the event of noncompliance. Other desirable elements include limiting public sector distortions (by limiting public sector guarantees, restricting deposit insurance to small deposits, and establishing a credible exit policy) and raising the quality of public disclosure as a way of strengthening market discipline.

All this is easier said than done. Political pressure for regulatory forbearance is intense. The knowledge required to assess bank balance sheets is in short supply, nowhere

[19]The list that follows is essentially drawn from the Core Principles for Effective Banking Supervision (Basle Core Principles).

[20]The list here draws on Goldstein (1997) and Folkerts-Landau and Lindgren (1998).

more so in emerging markets. Efforts to loosen this bottleneck through technical assistance by the World Bank and banking-system surveillance by the IMF run up against personnel and expertise constraints of their own. The problem grows more intense as banks branch into new lines of business and with the proliferation of exotic, thinly-traded derivative financial instruments.

The alternative is to rely on simple rules, limiting, inter alia, banks' foreign-currency exposures as a way of containing risk. Unfortunately, simple rules can have complex consequences, including unintended ones. Restricting the open foreign exchange positions of banks, for example, may simply cause the latter to pass on that exposure to their domestic customers (who are even less able to handle it) in the form of foreign-currency-denominated loans.

Similarly, capital requirements higher than the Basle standards are a deterrent to excessive risk taking only if bank capital is ultimately written down. Political pressure may lead the authorities to recapitalize an otherwise insolvent bank on concessionary terms or to establish a special facility that takes nonperforming loans off the banks' books in return for government bonds in excess of those loans' marked-to-market value. If so, capital requirements will have little deterrent effect.

These dilemmas have motivated the search for additional options for regulating and restructuring the banking sector. One such option is narrow banking, under which banks, or at least insured banks, are permitted to invest their liquid liabilities only in liquid assets.[21] Eligible assets could be limited to deposits with other banks and to interest-bearing assets

[21]See Litan (1987) and Burnham (1990).

like short-term government securities, the market in which is deep and broad. Since narrow banks are still exposed to interest-rate risk and small depositors will still have difficulty in evaluating banks' portfolios, there will remain a case for deposit insurance. But narrow banks would have little scope for taking on additional risk.[22]

[22]They would be competitive with other financial institutions in the same sense as money-market mutual funds. And were there any doubt about this, giving them exclusive access to the payments system operated by the central bank would give them a special advantage in terms of convenience in carrying out transactions for their customers.

The demand for other banking services would not disappear, of course. Firms with a demand for external finance would supply increasing amounts of commercial paper and junk bonds, the demand for which would be provided by the expansion of mutual funds.[23] But only relatively credit worthy borrowers are able to issue the kind of publicly-traded securities attractive to mutual-fund-like vehicles.[24] The demand for commercial, industrial, real estate and consumer loans by less credit-worthy borrowers would therefore shift to finance companies and finance-company-like organizations which were not offered deposit insurance.[25] The latter would then have an incentive to offer deposit-like liabilities.[26] Many of the risks presently associated with banks would simply shift to non-bank intermediaries, which might themselves have a tendency to affiliate with narrow banks (presumably through holding companies). The question would then become whether the authorities' ex ante commitment not to apply too-big-to-fail arguments to these entities would be politically sustainable ex post. Insofar as financial distress in these entities gave rise to bank-like externality problems, this might not be the case. The hope of narrow-banking proponents is that the authorities could head off threats to systemic stability by undertaking lender-of-last-resort operations (following sound central bank practice, lending only at penalty rates against acceptable collateral), but not necessarily compensating investors for their losses, who would

[23]As well as insurance companies, pension funds, and hedge funds.

[24]For a theoretical explanation, see Diamond (1991).

[25]Finance companies typically fund themselves with capital (significantly more capital than commercial banks) and long-term debt.

[26]Unless this was prohibited and prevented in practice by detailed and rigorously enforced regulatory restrictions.

then have an incentive to exert stronger market discipline against unsound lending practices. But in a sense, the proponents of narrow banking are simply assuming a convenient answer to the fundamental question; were it really so simple for governments to limit depositor bailouts in this way, they could simply limit the provision of those bailouts to existing financial institutions, obviating the need to create narrow banks.

A second option is to internationalize the banking system. A banking system with an internationally diversified asset base is less likely be destabilized by a domestic economic crisis. Domestic branches of foreign banks effectively possess their own private lenders of last resort in the form of the foreign head office. And the institution as a whole can count on last-resort lending by the central bank of the country in which the home office resides, where that country is likely to be a more stable mature market. Finally, where competent management is in short supply, allowing entry by foreign banks can be a means of importing expertise.[27] Parent banks with hard-earned reputations for financial probity have an incentive to apply to their foreign branches state-of-the-art internal controls and accounting standards.

[27] As Gavin and Hausmann (1997, p.135) put it, "Such banks bring with them accounting practices, disclosure standards and risk management practices shaped by the requirements of the world's most demanding supervisors and private investors."

All this provides an argument for internationalizing banking systems.[28] To be sure, the elimination of statutory barriers to the establishment of foreign branches and subsidiaries will not produce a single global banking system overnight. Domestic banks have an advantage when seeking to defend their market share as a result of having invested in proprietary sources of information. And however invigorating the chill winds of international competition, suddenly exposing domestic banking to foreign entry can be a sharp shock to previously sheltered financial institutions. In the absence of an orderly exit policy it may encourage gambling for redemption and other perverse short-run responses. This argument for phasing in the internationalization of banking suggests that this solution will take time to implement.

A final option is to place taxes or quantitative limits on the short-term foreign-currency borrowing of banks. Banks, it has already been argued, are a special source of vulnerability to the stability of the financial system. Knowing that the importance the authorities attach to the maintenance of confidence will ultimately induce them to make good on the banks' liabilities, international investors attracted by high domestic interest rates will be inclined to provide short-term foreign-currency funding in the expectation of being able to get their money out. At the same time, allowing the banks to borrow short term in foreign currency heightens the risk of crisis, since the domestic authorities cannot print the foreign exchange needed by a lender of last resort seeking to make good on these liabilities and can

[28]As argued strongly by Meltzer (1998).

only pay off the banks' creditors by putting the domestic economy through a wrenching internal and external adjustment.

These are arguments for limiting banks' short-term foreign-currency borrowing. Each bank could be restricted to borrowing no more than a certain percentage of its liabilities. Alternatively, the total short-term foreign-currency borrowing of the banks could be limited to a certain percentage of total banking-sector liabilities, and banks could auction entitlements to borrow among themselves.

Limiting the ability of banks to borrow abroad would, however, simply encourage nonbanks to do the borrowing for them. Domestic corporates could borrow offshore in foreign currency and deposit the proceeds with domestic banks which, their access to external funding restricted, would offer relatively attractive deposit rates; the banks would then onlend the proceeds to other customers. If corporates hedged their exposure by making foreign-currency denominated deposits the banks would end up with the same short-term foreign currency exposure as when there were no limits on their ability to fund themselves abroad. Assuming no change in the pressure on the authorities to provide the banks with guarantees, foreigners would have the same incentive to freely supply short-term foreign-currency funding, since there would still be little question about their ability to get their money back.

The vulnerabilities to which the financial system was subject would remain essentially unchanged.[29]

[29]If, on the other hand, corporates made domestic-currency deposits, they would assume the foreign-exchange exposure and be subject to similar insolvency risk from exchange rate changes as the banks in the no-restriction scenario. It seems likely that they authorities that had previously felt impelled to extend guarantees to the banks would now extend similar support to nonbanks, having induced the latter to take on financial-intermediation responsibilities.

The logical result of starting down this road is therefore a tax or tax equivalent on all foreign capital inflows, not merely on inflows into the banking system. If it was intended to target short-term capital inflows, it could be structured as a holding period tax, like the Chilean measure which requires all nonequity foreign investment to be accompanied by a one year, noninterest-bearing deposit with the central bank (whose tax equivalent therefore declines with the duration of the investment).[30] This raises the issue of the efficacy of capital controls more generally, to which we now turn.

The Efficacy of Capital Controls

A stylized fact from the literature on capital controls is that controls on inflows are likely to be more effective than controls on outflows. When investors anticipate a significant fall in the foreign exchange value of the currency, they have a strong incentive to convert their holdings into foreign exchange. For investors who sell the currency short, a 10 per cent devaluation with 50 per cent probability over the next five days translates into an expected return well into the triple digits. This creates a very strong incentive to find ways of circumventing controls on outflows. While controls can slow down the rate of outflow and

[30]Trade credits are also subject to the 30 per cent deposit. When implemented in 1991, the deposit requirement was only 20 per cent and its term varied by type of credit; it was raised to 30 per cent and made uniform in May 1992.

give the authorities a little additional breathing space to arrange a more orderly exchange rate change, their effects are likely to be only marginal.[31]

[31]See Mathieson and Rojas-Suárez (1993) for a review of these issues.

Controls on inflows, and short-term inflows in particular, are a different story. Chile's controls on inflows, already alluded to above, are a widely-cited model.[32] Given the fixed term of the non-remunerated deposit required of foreign investors, the effective rate of taxation declines with the duration of the investment, providing a disinducement for short-term lending.[33] Thus, investors attracted by high domestic interest rates but anticipating to partake of them only for a short period may be particularly deterred. This approach has the further advantage that it gets around the problem that controls targeted at certain categories of capital inflows are subject to evasion by relabelling.

What is the evidence on the effects? In two years starting 1995, when Chile's deposit requirements were tightened, the share of short term loans in capital flows to Chile declined from nearly 25 per cent to just 10 per cent. The question, of course, is whether the deposit requirement was mainly responsible for this shift, for other factors also plausibly encouraged a lengthening of the maturity of inflows into Chile, including enterprise privatization, which

[32]They are also worth focusing on because, compared to other national cases, they have been intensively studied.

[33]Valdes-Prieto and Soto (1996b) estimate that the effective tax equivalent on a six month loan has fluctuated from 1.3 to 4.5 per cent (as a function of the level of interest rates).

created new opportunities for DFI, and the country's improving investment climate. Similarly, the structure of the nonfinancial sector could be responsible for the composition of the inflow insofar as not just Chile but also other heavily-natural-resource-abundant economies such as Colombia and Peru were recipients of relatively large volumes of DFI.[34]

Chumacero et al. (1996) use regression analysis to confirm that at least some of the decline in the share of short-term capital in total inflows into Chile has been due to the deposit scheme. Valdes-Prieto and Soto (1996) similarly conclude that the scheme has succeeded in shifting the composition of flows without significantly altering their volume. Cowan and de Gregorio (1997) find that the Chilean policy succeeded in driving a wedge between domestic and foreign interest rates. Edwards (1998), using a different approach, finds some evidence of a greater degree of persistence in interest differentials (between Chile and abroad) in the period of nonremunerated deposits compared to the preceding years, suggesting that Chilean controls did provide at least limited insulation from international flows.

[34]There are also reports of locally-based foreign companies finding ways to evade the tax, through for example the use of transfer pricing and other financial devices to avoid having to book a foreign loan.

While other national experiences have not been analyzed as systematically, the available evidence is nonetheless striking. Thailand and South Korea freed foreign investors to lend short-term to the financial sector while continuing to restrict longer-term flows into domestic bond and equity markets and (in the latter case) to limit direct foreign investment. Again, these measures appear to have influenced the composition of inflows in what, in retrospect, appears to be a counterproductive manner. Korea placed a ceiling on medium and long-term borrowing from international financial markets by commercial banks, encouraging domestic intermediaries to borrow short. Foreign portfolio lending to nonbank residents was subject to prior official approval, which apparently discouraged the practice. Foreign ownership of listed companies was limited to 20 per cent of their capital, and foreigners were allowed to purchase only 30 per cent of convertible bonds issued by small and medium size companies. There is reason to think that these measures played a role in shortening the maturity structure of foreign loans and channeling them through the banking system. Thailand established the Bangkok International Banking Facility (BIBF), under which Thai banks were allowed to accept deposits or borrow in foreign currencies from abroad and lend in Thailand.[35] To encourage the practice, BIBF banks were granted a reduction in corporate taxes from 30 to 10 per cent, along with other incentives. Again it would appear that policy played a role in the predominance of relatively short-term bank-intermediated inflows.

All these experiences suggest, then, that the way the capital account is controlled can have a significant effect on the composition of capital inflows.

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[35]In 1995 the BIBF was supplemented by the Provincial International Banking Facility (PIBF), established under the same conditions as the BIBF but with the possibility of lending domestically in baht.

3. Implications for the International Monetary Fund

Never has the IMF been so at the center of controversy as in the wake of the Asian crisis. It has been accused of moving too quickly and too slowly, too aggressively and too cautiously, of prescribing the wrong medicine and of prescribing an overdose of the right medicine. If one thing can be said in its defense, it is that not all these criticisms can be correct simultaneously!

Much of this ink has been spilled over what are ultimately subsidiary issues, such as whether the Fund's programs for the crisis countries were too tight. There will always be quibbling over the details of the institution's monetary and fiscal advice, but at the end of the day these are not the fundamental issues.[36] The fundamental issues are rather the appropriate scope of responsibilities for the IMF and how it should carry out its functions.

One view, associated with Feldstein (1998), is that the IMF should focus on helping countries finance and adjust to temporary balance-of-payments problems and concentrate its advice on the monetary and fiscal policies that are the immediate determinants of the external

[36]The Fund, it was argued, perversely asked Asian countries maintain high interest rates in disregard of recessionary pressures. It asked them to tighten fiscal policy despite the fact that, unlike typical IMF program countries, they had not entered their crises with significant budget deficits. The argument for lower interest rates is wishful thinking. Governments had to convince the markets of their commitment to restoring currency and price stability, and a sharp hike in interest rates was the only signaling device available. Higher interest rates of course made life difficult for domestic banks and corporates, but lower interest rates would have implied a lower exchange rate, and given the fact that the currency in many of these countries had already lost 50, 60, 70 and even 80 per cent of its value, this would have presented even greater difficulties for corporates and banks with domestic-currency-denominated assets and foreign-currency-denominated liabilities. Those who argue for lower interest rates to reflate the economy are therefore implicitly arguing for a debt default or moratorium to make those lower interest rates feasible.

accounts. The Fund has erred, in this view, by straying into financial regulation, auditing and accounting, corporate governance, corruption, and competition policy. What business is it of the IMF, the argument runs, to tell Indonesia to put its national car program on hold or dismantle its clove monopoly?

The editors of the *Wall Street Journal* (1998) have laid out the same argument but drawn different conclusions. The IMF, they argue, should focus on payments problems that threaten the stability of exchange rates. It should do so by acting as a true lender of last resort. This means preventing financial panics by lending freely at a penalty rate to anyone who offers good collateral but otherwise leaving domestic economic arrangements to the countries concerned.[37]

These recommendations that the IMF return to its original mission fail to take into account the changes in the international environment that have occurred over the 50 years since the Articles of Agreement were signed. To be sure, the Fund's role should still be to facilitate balance-of-payments adjustment and to provide financial assistance for countries with payments problems. But its techniques for discharging that role must be adapted to changed circumstances. Before its members had moved significantly in the direction of capital account convertibility, restoring external balance meant focusing on the monetary and fiscal policies that had an immediate impact on the current account of the balance of payments. But as capital accounts have opened, stabilizing the balance of payments has also

[37]A particularly clear statement of this view is Meltzer (1998).

come to mean stabilizing the capital account. And now that domestic and international financial transactions are seamlessly linked, it is impossible to “fix” the capital account without “fixing” the domestic financial system. If the Asian crisis has shown one thing, it is that an injection of liquidity designed to finance a payments deficit will simply leak back out through the capital account if it is not accompanied by measures to stabilize and restore confidence in the domestic banking system, and that the standard adjustment measures are likely to have perverse, even deflationary effects if not buttressed by policies to stabilize an unstable financial system. This is not to deny that financial stability still requires sound monetary and fiscal policies and a suitable exchange rate policy. But Thailand aside, monetary and fiscal imbalances and misaligned currencies were hardly at the root of the Asian crisis. What that crisis has taught us is that financial stability also requires sound bank supervision, effective financial market regulation, transparent accounting and auditing practices, effective corporate governance, and efficient corporate insolvency and reorganization procedures.

A similar objection applies to the argument that the IMF should act as a true lender of last resort but not otherwise intrude into domestic economic arrangements. How can the Fund be asked to act as a lender of last resort without possessing some oversight of domestic banking systems? How can it be asked to provide liquidity against good collateral if it has no basis on which to value the collateral it is offered?

This leads to the more difficult question of how the Fund should ensure that countries properly surveil and regulate their financial systems, employ adequate accounting and auditing procedures, adopt equitable and transparent bankruptcy codes, and develop efficient

modes of corporate governance. These are complex issues; it is not clear that there exists a consensus among experts on best practice in these areas. Given how economic, social and political circumstances differ across countries, there should be a strong presumption that the same arrangements are not suitable for all of them. Nor does the IMF possess the expertise and personnel to give each country detailed advice in each of these areas, even were this viewed as desirable.

The alternative is to prod the public and private sectors into identifying international standards for best practice. National practices may differ, but all national arrangements should meet minimal standards. All countries must have adequate bank supervision and regulation. All must have adequate accounting and auditing standards. All must have transparent and efficient national insolvency codes.

This is a prime area for public-private sector collaboration. In the case of accounting, for example, there already exists an International Accounting Standards Committee consisting of representatives of the accounting profession from 91 countries, which promulgates international accounting standards. There exists an International Federation of Accountants, with parallel membership, which has gone some way toward formulating international auditing standards. In the area of financial regulation there is the International Organization of Securities Commissions (IOSCO), which serves as a forum for securities regulators and has established a series of working groups to coordinate regulatory initiatives. Thus, there already exist private-sector bodies and international committees of regulators positioned to develop standards. And insofar as other international agencies are already engaged in standards-related work in areas such as bank supervision (the BIS), corporate

governance (the OECD), and bankruptcy codes (the UN), this is also a promising area for collaboration between the IMF and other multilaterals.

One could contemplate a sequence of increasingly ambitious steps toward creating a more active role for the IMF in this area. Least ambitious would be for the Fund to observe the activities of these groups. Somewhat more ambitious would be for it to seek status as an ex officio member of these committees, to certify the standards they identify as measures of international best practice, and to recommend that its member countries commit to meeting them. More ambitious still would be for it to actively encourage countries to apprise the markets of their compliance. Each self-organizing committee could be encouraged to establish an electronic bulletin board where such information could be centralized. Hyperlinks could be provided to the Fund's electronic bulletin board. The Fund could monitor countries' compliance with those standards, for example in conjunction with Article IV surveillance.

A more active role for the IMF in the promulgation of standards would be a departure from past practice. But it is the only alternative to inaction if one believes that the Fund does not possess the resources to develop standards in these areas itself and that it is desirable to instead take advantage of the resources of the private sector. Public-private sector collaboration is certain to be complicated, but the only alternative -- inaction -- is not a viable option. The response to those who say that financial supervision, auditing and accounting standards, insolvency and reorganization procedures, and corporate governance are mere window dressing is that adequate institutional arrangements in these areas are essential to financial stability in our modern world. If the Asian crisis has taught us one thing, it is that

countries cannot restore exchange-rate and balance-of-payments stability without rectifying deficiencies in the organization of their domestic financial systems. And if it is necessary to proceed, there is no alternative to proceeding by way of public-private sector collaboration.

Note also that IMF involvement in this area is not unprecedented. In the wake of the Mexican crisis, the Fund established a Special Data Dissemination Standard which, as its name implies, is an international standard for dissemination of macroeconomic and financial information. A recent IMF staff paper, *Toward a Framework for Financial Stability* (Folkerts-Landau and Lindgren 1998), can be thought of as contributing to the creation of an international standard for bank supervision. Recent work by the Fund on a code for fiscal transparency can be thought of as an international standard.

These are issues of crisis prevention; a more difficult area is the management of crises when they occur. In the wake of the Asian crisis, concerns have been voiced that official monies have been used to bail out private creditors, shielding them from the consequences of imprudent lending decisions and aggravating problems of moral hazard.[38] While the Korean crisis demonstrates that steps can be taken to "bail in" the private sector, it is important to be clear that this is a difficult and, in some sense, intractable problem. When creditors feel an urge to "rush for the exits," arm twisting by the international policy community can have only

[38]In fact, only creditors with short-term claims on financial institutions and sovereigns have been protected; others have sustained large losses in the secondary market value of their claims.

limited effect. Creditor banks as a group may be better off if they all roll over their exposure, but each individual bank may still prefer to get out. It may take the expectation of an imminent moratorium, or even the fact of one, to get them to acknowledge and act in their collective interest.

That said, it is possible to suggest several steps to facilitate private-sector burden sharing. First, it is essential to recognize, as suggested in Section 1 above, that short-term claims pose a special problem, both because they are so liquid, making it especially easy for those extending them to scramble for the exits, and because the stability of the financial institutions to which such claims are often extended are so central to financial stability. The liquidity and indispensability of their funds thus make it hard to impose a fair share of the adjustment burden on such creditors. And this in turn provides an argument for discouraging excessive reliance on such claims. This is an argument for the more widespread use of measures like those employed by Chile, whose government, while applying a tax to all capital inflows, structures it so that it falls most heavily on short-term inflows.

Second, countries could be encouraged to arrange stand-by lines of credit from commercial banks, similar to those arranged by Argentina. In return for a commitment fee, banks would stand ready to make funds available at short notice, providing a form of market-based insurance against the adverse effects of liquidity crises. Where these credit lines had been negotiated in advance, the contribution of the commercial banks to the burden of financing the crisis would be triggered automatically. To be sure, such credit lines are expensive, and not all countries will be able to secure them. But recent experience in Mexico

and elsewhere suggests that a significant number of emerging-market countries might pursue this route.[39]

Third, the Fund could initiate more regular meetings with market participants as a way of regularizing discussions designed to encourage burden sharing. A limited approach would consist of an increase in the frequency of informal briefings provided by mission leaders and management. The scope of such briefings could be expanded from journalists to encompass selected representatives of the financial community.

[39]There is also the question of whether such credit lines would in fact augment the net resources available to the country in crisis. The skeptical counterargument is that only banks already in the position of extending trade credits to the country would be prepared to extend stand-by credit lines, since they could hedge their additional exposure when those stand-by lines were called upon by curtailing their provision of trade credits, resulting in no additional net resources for the country. But if one believes that banks extending trade credits will tend withdraw them anyway in a crisis in order to limit their exposure, then this argument has no force: stand-by credit lines would increase the resources available to the country relative to this baseline. Only if one believes that banks asked to provide stand-by credits in a crisis would then hedge by withdrawing trade credits that they were otherwise willing to provide (even in a crisis) does the objection hold water.

Limiting briefings to selected market participants would not be even handed, however. A more ambitious approach would be for the Fund to seek to establish a partnership with the private sector. It might establish regular contacts between staff and a newly-established creditor council -- "the Washington Club" -- as suggested previously by Eichengreen and Portes (1996). That council could be a purely voluntary arrangement with no legal standing. But it could still provide an important forum for representative groups of creditors to receive briefings on developments and prospects, to convey concerns to the Fund (and the official sector generally), and to exchange information regarding lending decisions.[40]

More ambitiously, the group could also be assembled on an ad hoc basis and used as a channel for explaining Fund arrangements and as a vehicle for obtaining financing assurances. It might be used as a forum for creditors and debtors to renegotiate debts, including international bonds. Clearly, there are controversial issues here, including the composition of such a council, which would have to be fluid to reflect the changing structure of debt markets and debt contracts. But if one is serious about encouraging private-sector burden sharing, this alternative should be explored.

Notwithstanding these efforts to strengthen the Fund's catalytic role and to encourage creditor forbearance, there are likely to be cases where countries lose access to international capital markets. To date, the Fund has been reluctant to contemplate standstills, moratoria

[40]The Fund's relations with the creditor council could be analogous to the informal semi-annual briefing provided to the Berne Union.

and default for fear that they are prohibitively difficult to clear away and that they have uncertain implications for contagion and for the stability of the international financial system. To provide a realistic alternative to large-scale official financing, it is therefore necessary to take steps to facilitate the smoother removal of moratoria when they occur.

Some of the relevant steps were suggested by the G-10 in its report, *Resolving Sovereign Liquidity Crises* (Group of Ten, 1996). Deputies recommended making it easier to undertake negotiations by altering the provisions of loan contracts to include majority voting, sharing, and non-acceleration provisions. But according to their report, new provisions are to be introduced into debt instruments through a "market-led process." Governments are to trumpet the virtues of new clauses but to otherwise take no action. They are to hope that the markets will see the light.

But if changes in contracts were so easily adopted, the markets would have done so already. That no real progress has occurred in the intervening three years suggests that there are significant obstacles to market-driven reform. If only some sovereign borrowers include qualified-majority-voting clauses in their loan agreements, for example, creditors may suspect that those debtors regard it as likely that they will have to restructure in the not-too-distant future. The qualified-majority-voting clause will be regarded as a negative signal, that the borrower is less than fully committed to servicing his loan, much like a bride-groom’s request for a prenuptial agreement..

The G-10 report, perhaps in a desire to look market friendly, said little about this dilemma. At one point it acknowledged the first-mover problem and suggested that official support for contractual innovation should be provided "as appropriate" but failed to elaborate.

A more pro-active approach would be for the IMF to urge the adoption of majority-representation and sharing clauses by all its members. Implementing this recommendation would involve the IMF in recommending that members require that all international bonds admitted to domestic markets (including under Rule 144A) after a specified date include such provisions. To be sure, this is no panacea. Private placements might not be affected, and existing loan agreements might have to be grandfathered in. But slow progress is better than no progress.

Other steps to facilitate the resolution of debt crises, and to make alternatives to bailouts palatable, have been considered by the IMF's Executive Board. These include another recommendation of the G-10 report, namely, lending into arrears to provide working capital to countries undertaking good-faith negotiations and to drive recalcitrant creditors to the bargaining table, and amending Article VIII 2(b) of the Articles of Agreement to empower the Fund to effectively impose a standstill to shield such debtors (and Fund resources) from disruptive legal action. While having gone some way in the years since the Mexican crisis toward accepting the policy of lending into arrears, selectively and on a case-by-case basis, the Fund's Executive Directors remain reluctant to make this official policy.

They also remain reluctant to recommend amending Article VIII 2(b) to give the Fund the power to sanction a country's decision to suspend debt service payments and effectively shelter it from legal action. Giving the international community, and the IMF in particular, the power to impose a creditor standstill may be one step too far, in the prevailing view, toward an international bankruptcy procedure. While doing so would protect the debtor against a destructive creditor grab race, it could dangerously undermine creditor rights. A

U.S. court using Chapter 9 or Chapter 11 of the U.S. code to shield the debtor's assets against attachment by its creditors can protect creditors' rights by using its judicial oversight to ensure that management does not strip the firm's assets. The ability of the IMF and the international community to reach into the domestic affairs of countries being (rightly) limited, the use of Article VIII 2(b) to shield debtors from legal action would not be accompanied by analogous measures to protect creditors.

4. Conclusion

The 1997-8 crisis has been first and foremost a crisis for the countries engulfed by financial instability, but it has also been a crisis for the international system. An adequate response therefore requires action at both the national and international levels. I have emphasized the need for better coordination of prudential regulation of the financial system with exchange rate policy, the benefits for macroeconomic and financial stability of encouraging the internationalization of domestic banking systems, the advantages of Argentinian- and Mexican-style commercial credit lines as a second line of defence against financial market shocks and a way of automatically "bailing in" the private sector, and the desirability for many emerging markets of taxes on capital inflows -- on short-term capital inflows in particular -- as a form of prudential regulation.

At the international level, I have argued the need to strengthen institutional arrangements in areas such as financial regulation, accounting and auditing, bankruptcy and insolvency, and corporate governance, and that the only realistic and effective approach to this problem is likely to be public-private sector collaboration in the design, dissemination

and application of international standards for acceptable practice. I have also argued the case for a more forceful approach by the IMF and G-10 countries to the problem of modifying the provisions of loan contracts to permit private-sector burden sharing and orderly restructuring of nonperforming debts. This and other steps, such as more systematic utilization by the Fund of its option of lending into arrears, is necessary to create a third alternative to the untenable situation where the only two choices for the international community in response to a crisis are to extend a bailout or walk away.

Others will wish to add to this reform agenda. Some will remind readers of the importance of uncontroversial but fundamental propositions such as the importance of better information, better bank regulation, and strengthened multilateral surveillance. Still others will advance more radical and controversial proposals -- renewed calls for a Tobin tax and an international bankruptcy court, for example -- with less chance of implementation. But in the view of this author, the points just enumerated should be at the center of an effective reform strategy.

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