

Regional arrangements for providing liquidity in a financial crisis: developments in East Asia

Graham Bird and Ramkishen S. Rajan

Abstract Given its potentially global significance and the attention that there tends to be towards things that go wrong, it is hardly surprising that most of the literature dealing with economic events in East Asia during recent years has concentrated on the crisis period of 1997 and 1998. This work has sought to gain a better understanding of why such crises occur and how best they can be handled if and when they do. Less attention has been paid to the more recent post crisis period. To what extent and within what time frame did countries in the region recover from the crisis, and, if there has been a recovery, can it be sustained? Drawing on the available evidence, this paper attempts to answer these questions. By implication, however, it also has something to say about the vulnerability of the region to subsequent crises and briefly considers what needs to be done to reduce this.

Keywords Banks lending; capital flows; currency crisis; financial sector reform; East Asia.

Graham Bird is Professor of Economics at the University of Surrey and Director of the Surrey Centre for International Economic Studies. He is the author of numerous books and articles dealing with international finance and economic development.

Ramkishen Rajan is a Senior Lecturer in the School of Economics, University of Adelaide. He has published several journal articles, book chapters and monographs on various aspects of international economics especially with particular reference to Asia.

Addresses: Graham Bird, Surrey Centre for International Economic Studies, University of Surrey, England. E-mail: G.Bird@surrey.ac.uk. Ramkishen S. Rajan, School of Economics, University of Adelaide, Australia. E-mail: ramkishen.rajan@adelaide.edu.au.

The Pacific Review

ISSN 0951–2748 print/ISSN 1470–1332 online © 2002 Taylor & Francis Ltd

<http://www.tandf.co.uk/journals>

DOI: 10.1080/09512740210152849

1. Introduction

Although balance of payments crises come and go, and although the details of any one specific crisis are likely to differ from those of another, there is an underlying continuity between them. They are handled by a combination of adjustment policy and external financing. The nature of the adjustment policy and the size and source of external financing varies but the basic policy alternatives facing governments encountering crises are essentially similar. Adjustment may, in principle, take on a demand-side or supply-side orientation but is likely to incorporate some measure of domestic demand contraction, since aggregate domestic demand is quicker and easier to manipulate than aggregate supply. Policy tools will include monetary policy, fiscal policy and exchange rate policy. However, 'structural' adjustment and exchange rate policy may also be part of the strategy, and policy may include microeconomic measures designed to strengthen the supply side. Financing may be provided by decumulating international reserves, or may come from private international capital markets. It may also be provided by other governments or by intergovernmental organizations, particularly the International Monetary Fund (IMF).

If the choice were to be unconstrained, it may be assumed that governments would rationally opt for a combination of adjustment speed and external financing that minimized the perceived cost of overcoming the crisis (in terms of lost output and therefore employment). But their choice will not be unconstrained. Economic and political constraints may limit the speed and severity of adjustment. However, the binding constraint is often likely to be the availability of financing. Countries hold only finite levels of international reserves and even relatively large reserve holdings may be swiftly wiped out during a crisis. Private capital markets will not always deem countries creditworthy, particularly in crisis conditions, and there are constraints on how much the IMF can lend. Moreover, in the case of the IMF, loans are conditional, so that borrowing from the IMF does not allow a country to bypass adjustment altogether. Indeed, the country loses a degree of sovereignty over the choice of adjustment policy in return for the additional resources that the IMF supplies. With or without the Fund, impaired access to international liquidity may force countries to pursue balance of payments strategies that are heavily adjustment-intensive. Given the primacy of strengthening the balance of payments over other policy objectives during a crisis, adjustment will involve contractionary monetary and fiscal policy aimed at reducing aggregate demand (so-called 'expenditure-reducing' policies) and exchange rate devaluation aimed at boosting international export competitiveness (so-called 'expenditure-switching' policies).

Any international financial system implicitly or explicitly deals with the question of the appropriate blend between *financing* and *adjustment* in the event of balance of payments deficits. The IMF came into existence

in part to provide member countries with an additional source of financing to enable them to avoid adjustment policies that would be potentially 'destructive of national prosperity'. However, a number of things have happened since the IMF was established. In particular, private international capital markets have grown by leaps and bounds and, with the declining use of controls over its movement, capital has become highly mobile.

Given the key role of expectations in influencing the international movement of capital and the short-run instability of expectations, capital flows have become highly volatile. IMF financing was originally intended and designed to help deal with trade-related *current account* deficits rather than crises of the *capital account* (Rajan 2002; Rajan and Siregar 2001).¹ It has been in this context that there have been calls for a new international financial architecture.

This paper examines these issues in the context of the East Asian financial crisis of 1997–98 and subsequent developments both in the region and globally. Focusing on East Asia is appropriate since it was the crisis in this region that breathed life into the architecture debate, although it had been the Mexican crisis of 1994 that had issued the first alert. However, the underlying analysis provided here is more general and can be applied to other regions of the world where financial crises have occurred or may yet occur. Without investigating the causes of the East Asian crisis in detail (for instance, see Berg 1999 and Rajan 1999), section 2 emphasizes one dimension of it, viz. the shortage of international liquidity. Declining liquidity frequently lies at the heart of the dynamics of currency crises. Section 3 goes on to examine the implications of illiquidity for adjustment in the case of East Asia. It does not seek to evaluate the details of IMF-sponsored programmes in the region but merely the consequences of the trade-off between external financing and the speed and intensity of adjustment.² Given the size of the output losses experienced, section 3 proceeds to examine potential ways of enhancing the availability of liquidity in crisis conditions so that such losses may be minimized in the event of potential future crises. There are reasons to doubt whether private capital markets will adequately enhance liquidity. There may therefore be a role for governments or intergovernmental agencies to play. But does this imply an expanded role for the IMF? An alternative approach could be *regional* in focus rather than *multilateral*. Section 4 examines and assesses the regional liquidity-enhancing initiatives that are currently under way in East Asia. Finally, section 5 offers some concluding remarks that place these developments in the context of the ongoing debate regarding reforms of the international financial architecture, exploring in particular the nexus between monetary regionalism and multilateralism.

2. The East Asian financial crisis: illiquidity and its implications

Illiquidity can create crises even where the economic fundamentals are sound, or it can make a bad situation worse when the fundamentals are weak. Moreover, once it becomes a problem, illiquidity further undermines the confidence of international capital markets. Capital outflows increase, thereby reducing liquidity still further. Currency crisis models have shown that once countries fall below some liquidity threshold, matters can deteriorate rapidly. Although there continues to be a debate about the extent to which fundamentals accounted for the East Asian crisis, there is little doubt that illiquidity was a part of the problem. Prior to the crisis, capital inflows exceeded current account balance of payments deficits and this allowed international reserves to be accumulated. However, as capital markets lost confidence, capital inflows suddenly became capital outflows and the reserves were run down as a way of financing current account deficits (Table 1). As reserves were depleted, so confidence declined still further; a trickle became a flood, and countries in the region were forced to turn to the IMF for financial assistance.

Although large in relation to the Fund's normal lending, the loans from the IMF did not come close to fully compensating for the outflows of private capital, and this implied the need to switch from a policy of financing current account deficits to one of correcting them. The speed and intensity of economic adjustment was largely dictated by the scarcity of liquidity. Indeed, it was the extreme shortage of liquidity that called for rapid adjustment in the real economy. Empirical research confirms the *a priori* reasoning that the intensity of adjustment in East Asia in 1998 by comparison with other crisis periods reflected the shortage of liquidity.³

Some indication of the degree of adjustment may be gleaned from examining what happened to exchange rates and output following the financial crisis (see Figures 1 and 2). Traditional balance of payments theory distinguishes between expenditure-switching and expenditure-changing policies, and it is tempting to portray exchange rate devaluation, the classic expenditure-switching device, as an alternative to contractionary expenditure policies. If this was the case, it might be supposed that the East Asian economies would have experienced a sharp fall in the values of their currencies or a sharp fall in output but not both together. But as things turned out the balance sheet effects of devaluation for the domestic financial and corporate sectors seem to have created temporary but sharp recessionary repercussions as there was a rapid rise in the domestic currency cost of servicing obligations denominated in foreign currencies and a domestic liquidity crunch (Boorman *et al.* 2000; Krugman 1999; Rajan and Shen 2001).

To the extent that the recessionary effects of devaluation were underestimated at the time, contractionary aggregate demand management poli-

Table 1 Net capital flows to emerging economies, 1992–2001 (billions of US dollars)

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001(f)
Total										
Private capital flows	106.9	128.6	142.3	211.4	224.7	115.2	66.2	67.4	36.4	116.0
Direct investment	35.7	57.9	81.0	95.8	119.5	141.3	151.6	154.6	141.9	140.5
Portfolio investment	62.7	76.8	105.0	41.4	79.6	39.4	0.3	4.8	17.3	31.8
Other investment	8.5	-6.1	-43.7	74.2	25.6	-65.6	-85.6	-91.9	-122.8	-56.4
Official flows	25.0	48.7	4.8	15.7	2.0	52.7	55.3	13.0	19.9	9.9
Change in reserves ^a	-58.0	-62.7	-67.9	-117.5	-110.6	-62.9	-32.3	-64.0	-97.2	-108.1
Asia-5 economies^b										
Private capital flows	21.4	22.5	33.6	53.9	67.4	-15.6	-28.2	2.9	-22.4	10.6
Direct investment	6.3	6.7	6.5	8.8	9.8	9.8	10.3	13.1	9.1	9.0
Portfolio investment	12.4	18.3	12.0	18.8	25.5	8.4	-8.2	12.8	13.2	3.3
Other investment	2.7	-2.5	15.1	26.3	32.0	-33.8	-30.4	-23.0	-44.6	-1.7
Official flows	2.1	1.4	0.6	0.7	-6.1	15.7	19.5	-6.7	5.0	-2.1
Change in reserves ^a	-18.2	-20.6	-6.1	-18.5	-5.6	39.5	-47.0	-38.8	-19.2	-30.6
Other Asian emerging economies										
Private capital flows	-7.4	20.8	36.0	38.3	52.6	22.3	-12.5	-0.6	4.6	13.0
Direct investment	8.4	26.3	38.2	39.3	44.4	45.3	49.6	41.1	38.4	38.9
Portfolio investment	3.4	0.9	7.0	2.6	3.9	-0.1	-7.2	-8.9	-8.0	-0.2
Other investment	-19.2	-6.4	-9.2	-3.5	4.3	-23.0	-54.8	-32.8	-25.8	-25.8
Official flows	8.9	8.1	2.0	-3.8	-7.6	-8.3	-1.1	-0.1	-8.1	-4.2
Change in reserves ^a	-7.7	-14.9	-51.7	-26.2	-43.1	-46.8	-16.9	-20.9	-16.4	-30.8

Source: IMF (2000).

Notes:

a Minus sign denotes a rise and vice versa.

b Asia-5 economies are Indonesia, Malaysia, Philippines, Thailand and South Korea.

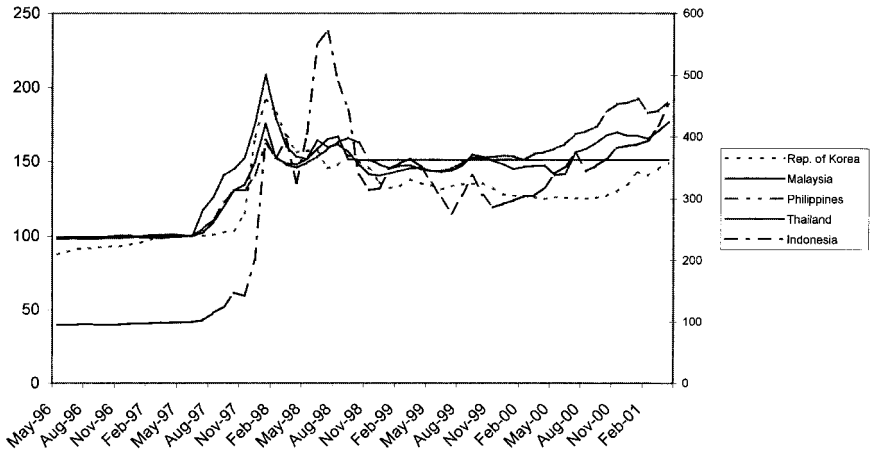


Figure 1 Bilateral exchange rates relative to US dollar (Jan-07 = 100), 1999–2001

Source: ADB, ARIC web site (www.aric.org).

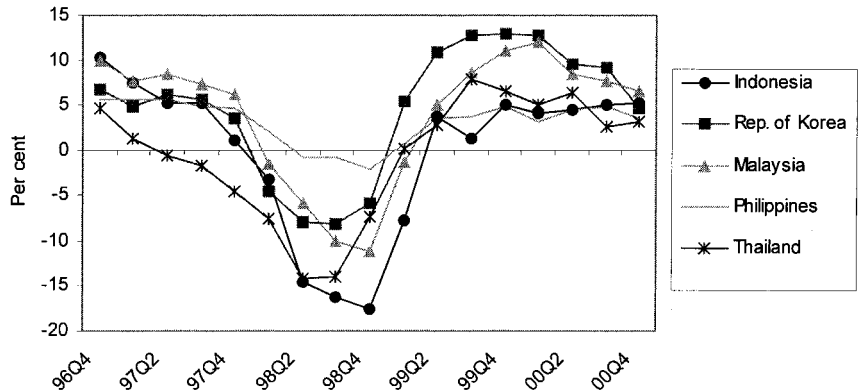


Figure 2 Quarterly GDP growth rate (per cent, year-on-year)

Source: ADB, ARIC web site (www.aric.org).

cies would have resulted in recession over-kill. Judged against potential output (real GDP) for each economy, the IMF has estimated that the cumulative output losses from the 1997–98 crisis were much larger than those following the Tequila crisis in Latin America in 1994 (see Table 2). The question then becomes whether these output losses could have been reduced. This brings us back to the trade-off between the severity of adjustment in the short run and the availability of international liquidity.

Table 2 Cumulative output losses of 1990s crises (per cent of 'potential' output)

<i>Cumulative four-year output loss^a</i>	
Tequila crisis	
Argentina	15
Mexico	30
East Asian crisis	
Indonesia	82
Korea	27
Malaysia	39
Thailand	57

Source: IMF (1999).

Notes:

a 'Calculated as the sum of the output gap over a four-year period, starting with the crisis year. The output gap is defined as the percentage difference between the actual and the hypothetical (or "potential") level of real GDP for each country. Graphically, the cumulative output loss would thus be represented by the area between the "potential" and actual output paths, starting from the crisis year and expressed as a percentage of "potential" real GDP. It follows that accumulated losses will be positive, and possibly large, even in cases where output is back to "potential" at the end of the four-year period. In the counterfactual scenario, it is assumed that "potential" GDP grows at 4 percent per annum and that actual and "potential" output coincided within the two-year period preceding the crisis. "Actual" GDP during 1999–2002 refers to IMF projections.'

3. Liquidity, crisis and the IMF

3.1. Importance of liquidity

As already noted, illiquidity, lack of confidence and self-fulfilling expectations create a highly combustible cocktail. But, by the same token, where liquidity is *perceived* to be adequate, confidence can be maintained and the self-fulfilment of expectations may mean that liquidity *is* adequate. It has long been recognized that inadequate liquidity can threaten the stability of international financial regimes. Thus, during the 1960s, the prime concern relating to the Bretton Woods international financial system was the widely perceived shortage of international liquidity. A sequence of reforms designed to increase international liquidity culminating in the introduction of the IMF's own international reserve asset, the Special Drawing Right (SDR), were aimed at shoring up the Bretton Woods system by reducing its vulnerability to crisis. Prior to the establishment of the SDR the IMF attempted to provide quick-disbursing low conditionality finance through lower credit tranche drawings and through its Compensatory Financing Facility (CFF) which was designed to help countries deal with problems caused by exogenous shortfalls in export earnings. While the CFF was designed with developing countries in mind, the industrial countries developed a network of bilateral swap arrangements within which countries encountering a specula-

tive crisis threatening the durability of their exchange rate peg could swap domestic currency for foreign currency with other central banks – a transaction that was reversed after the speculative attack had been repelled and the crisis had passed.⁴ Indeed, ultimately industrial countries no longer needed to turn to the IMF for assistance because they managed to develop sources of liquidity that they deemed preferable.

In principle, countries may finance current account balance of payments deficits in a number of ways: by depleting international reserves, by borrowing from private capital markets, by borrowing from the IMF (or other intergovernmental financial institutions), or by borrowing from the monetary authorities of other countries, through, for example, bilateral swaps. However, in practice, not all these options are available to all countries; in any case, there are problems associated with each of them. Depleting reserves may be a reasonable way of financing trade deficits that reflect export instability and are reversible in the near term; the expectation is that the reserves used will be replenished over time. Even in this context, however, it may not be sensible for developing countries to build up large reserve holdings because they involve a significant opportunity cost. Holding reserves means not spending them. In any case, reserve depletion is not a credible long-run way of dealing with capital reversals. Indeed, since international reserve holdings have been found to be a theoretically and statistically significant determinant of creditworthiness (Bussiere and Mulder 1999; Haque *et al.* 1996; Disyatat 2001), depleting them as a way of cushioning the effect of capital outflows on the exchange rate may make matters worse by inducing further capital outflows. If capital outflows reflect a perception within private capital markets that a country is illiquid, reducing international reserves and therefore reducing liquidity further is hardly likely to be an effective strategy. Thus the reversibility that makes reserve depletion credible in the context of trade deficits is often absent in the context of capital outflows.

From a government's perception an advantage associated with international reserves is that they may be used quickly and without conditions. This may also appear to be the case with financing from private capital markets. But while private capital inflows may again logically be used to finance temporary current account balance of payments deficits, the logic breaks down when the crisis is connected to the capital account. In this case, it is capital outflows that are the problem. Countries will be losing creditworthiness and their consequent access to private capital markets. Liquidity-based policies will instead need to be directed towards arresting the outflow of capital. In the midst of the crisis there is no guarantee that conventional wisdom relating to the capital account will apply. Hence raising the rate of interest may transmit a negative signal about the state of the economy and its future prospects and may lead to further capital outflows.⁵ A fall in the value of the currency may enhance expectations of a further fall with a similar outcome.

3.2. *The role of the IMF as liquidity-provider*

Provision of external financing may, for these reasons, be seen by some as a 'public good' and as being appropriately supplied by the IMF (Fischer 2001). As noted, the IMF used to possess a quick-disbursing low conditionality lending window (the CFF) designed to provide liquidity in the event of trade-related current account deficits. However, the trend since the 1980s has been towards greater conditionality and, by definition, this reduces the speed with which liquidity may be disbursed. By the time a Fund programme has been negotiated the internal dynamics of a crisis may be well established and therefore more difficult to break. Combined with the sheer size of capital movements as opposed to budget and trade deficits, the IMF may therefore be struggling to provide significant financial support, even though the absolute amount of lending to countries encountering capital account crises may put strains on the Fund's own resources.

One of the problems facing the Fund, which has constituted one component of the debate about a new international financial architecture, has been how to provide adequate liquidity to help forestall and, if needed, help deal with crises where there is reluctance to make concessions in terms of conditionality and reluctance to substantially increase the Fund's lending capacity. The Fund's response has been to create the Contingent Credit Line (CCL). The idea here was to establish a precautionary line of credit for countries that might be affected by contagion from a crisis, and to finance this from outside the Fund's quota-based resources by new arrangements to borrow (NAB). The negotiation of conditionality with potential users of the CCL would therefore take place before the country needed to draw on the Fund. However, no country has hitherto negotiated a CCL. Its weaknesses have been widely recognized and acknowledged and the facility has undergone some modifications in late 2000, including a reduction in the relatively high costs of borrowing from it and a review of the conditionality involved as part of obtaining the funding (Fischer 2001; Willett 2001).

However, this sort of 'tinkering' fails to recognize a more fundamental drawback of such a scheme. Why should countries sacrifice a high degree of sovereignty over national policy and subject themselves to strict conditionality when all they receive in return is an option on a drawing? Since, in many cases, countries fail to implement conditionality for one reason or another, a situation could arise where a country complies with a significant proportion of conditionality and yet is ineligible to draw in the event of experiencing contagion from a crisis. Of most concern, though, has been the possibility that by negotiating a CCL a country sends out a negative signal to private capital markets that it is vulnerable to a crisis. The range of *ex-ante* conditionality may paint a bleak picture of what is wrong. This may have an adverse effect on capital flows and may contribute to causing the very crisis that the CCL is intended to help avoid. Moreover, there

must remain some doubt about whether the facility would be adequately financed. Contagion from crisis has turned out to be more of a *regional* than a *global* phenomenon (Chang and Rajan 2001).⁶ Consequently, advanced economies may remain reluctant to provide finance when they may perceive the CCL as conferring few benefits on them.

This raises the question of whether the principle of subsidiarity suggests that a regional system of contingent credit lines should be established in similar vein to the bilateral swaps used during the Bretton Woods era. There are signs that this is the direction in which the East Asian economies are moving. The next section examines developments and the unresolved issues to which these developments give rise.

4. Regional liquidity arrangements

To some extent economies in East Asia have strengthened their international liquidity positions by replenishing and accumulating reserves (see Table 1 again), as well as by lengthening the average maturity of their external indebtedness (Table 3). This, along with the introduction of relatively greater flexibility in the exchange rate regimes, may have eased their vulnerability to the destabilizing effects of volatile capital flows.⁷ However, it does not mean that liquidity in the region is now adequate to avoid future crises. Moreover, as the economies of the region continue to recover from the 1997–98 crisis, imports will rise and current account surpluses will tend to fall; the rate of accumulation of international reserves will

Table 3 External debt of the Asia-5 economies,^a 1995–99 (percentage of GDP)

Country	1995	1996	1997	1998	1999	2000
Indonesia ^a	56.3	53.4	63.9	149.4	95.5	93.8
Malaysia	37.6	38.4	43.8	58.8	53.4	49.3
Philippines	54.9	55.0	61.6	81.7	75.7	78.9
Thailand	49.1	49.8	62.0	76.9	61.4	51.7
Korea	26.0	31.6	33.4	46.9	33.4	26.5
<i>of which: Short-term debt</i>						
Indonesia ^b	8.7	7.5	27.5	76.4	5.9	5.7
Malaysia	7.2	9.9	11.1	11.7	7.6	6.4
Philippines	8.3	12.0	14.0	15.6	11.3	7.5
Thailand	24.5	20.7	13.3	21.0	11.4	6.8
Korea	14.6	17.9	23.1	9.7	9.3	7.7

Source: IMF (2000).

Notes:

a Asia-5 economies are Indonesia, Malaysia, Philippines, Thailand and South Korea.

b The data for Indonesia exclude trade credits.

therefore also decline. In any case, as noted earlier, beyond a certain point reserve accumulation is likely to be an inefficient way of creating liquidity.

4.1. Limitations of unilateral liquidity arrangements

Judging the adequacy of holdings of international reserves is notoriously difficult. The conventional use of reserve–import ratios has always been somewhat arbitrary and lacking in either theoretical justification or precision. Crises of the capital account have vividly illustrated the shortcomings of basing the notion of reserve adequacy on a measure of the current account. But it is not obvious that any other ratio, such as the ratio of reserves to short-term foreign exchange denominated debt, which attempts to switch the orientation to the capital account, provides a definitive measure of reserve adequacy. While it may help to identify a threshold at which a crisis in the form of rapid reserve depletion is reached, any amount of reserves may prove inadequate if speculators lose confidence in a currency and believe that devaluation will occur. Approaching the concept of optimal international reserves via a cost–benefit calculus of holding them is more respectable theoretically but is not straightforward operationally; in particular, it is difficult *ex-ante* to calculate the benefits of holding reserves.⁸

The conclusion emerges that buttressing reserves as a strategy for discouraging or for handling currency crises has shortcomings. Given the size of private capital flows it cannot be safely assumed that even ‘very high’ reserve holdings will be adequate to defuse a crisis. At the same time, an important limitation of such a reserve-hoarding policy is that it involves high fiscal costs as the country effectively swaps high-yielding domestic assets for lower-yielding foreign ones (Rajan and Siregar 2001). What is needed is quick access to a relatively large amount of liquidity – large enough to restore confidence – should a crisis threaten. This implies some type of pooling arrangement. Contingent credit lines may therefore offer a better way of dealing with the problem of sudden outflows of private capital than does further reserve accumulation.

Some emerging economies, including Indonesia, Argentina, Mexico and South Africa, have recently arranged private lines of credit with international banks. However, there are a number of problems with such privately contracted credit lines rather than doing so on a regional or multilateral basis via official channels (Rajan 2002). First, there may be high opportunity costs involved in so far as the individual countries have to commit certain assets/revenue streams as collateral. Second, calling on these lines of credit when needed could lead to a hike in the country’s international risk premium. Third, while negotiating lines of credit with a country, the financial institutions could undermine the effectiveness of these commitments and their net exposures to that country via other chan-

nels (through various corporate risk management techniques). Foreign banks themselves could be a source of contagious transmission of crises. For instance, in response to a crisis in one country, multinational banks might attempt to liquidate positions in other regional economies to which they are exposed either to enhance overall liquidity or reduce (perceived) portfolio risks. This negative externality tends to be *regional* rather than *global*. All of this provides a rationale for developing regionally-based official contingent credit facilities to buttress the reserve holdings of individual countries.

4.2. The Chiang Mai Initiative

East Asian economies have recently agreed to create a network of bilateral currency swaps and repurchase agreements as a 'firewall' against future financial crises. This has come to be known as the Chiang Mai Initiative (CMI) following an agreement in Chiang Mai, Thailand, on May 6, 2000.

In broad terms, the CMI is aimed at providing countries facing the possibility of a liquidity shortage with additional short-term hard currencies. The CMI extends and expands upon the little known ASEAN Swap Arrangement (ASA) and encompasses all ASEAN countries as well as China, Japan and Korea (i.e. ASEAN Plus Three, or APT). The ASA was established in the 1970s to provide short-term swap facilities to members facing temporary liquidity or balance of payments problems. In 1977, there were only five ASEAN signatories – Indonesia, Malaysia, Philippines, Singapore and Thailand – each contributing about US\$40 million. This facility was increased to US\$200 million in 1978. At the Fourth ASEAN Finance Ministers Meeting in Brunei Darussalam (March 24–25, 2000), the Ministers agreed to expand the ASA to include the remaining ASEAN members, Brunei Darussalam, Cambodia, Lao PDR, Myanmar and Vietnam. In keeping with this expansion, the ASA was enlarged to US\$1 billion with effect from November 17, 2000. There are also a series of repurchase agreements (repos) that allow ASEAN members with collateral such as US Treasury bills to swap them for hard currency (usually US dollars) and then repurchase them at a later date. The expanded ASA is to be made available for two years and is renewable upon mutual agreement of the members. Each member is allowed to draw a maximum of twice its commitment from the facility for a period of up to six months with the possibility of a further extension of not more than six months.

This expansion of the ASA is the first step in putting into effect the CMI, which envisages that hard currency lines of credit will be made available to members. In addition to the expansion of the ASA among Southeast Asian countries, the three ASEAN Dialogue partners (China, Japan and Korea) have simultaneously been in discussions aimed at establishing a bilateral swap arrangement (BSA) amongst themselves. Japan

has recently signed BSAs totalling US\$6 billion with Malaysia, Thailand and Korea, and is planning to add more with China and the Philippines. BSAs among other members of the APT are expected in the near future.⁹ While the maximum amount of withdrawal under each of the BSAs will be determined by negotiations between the two countries concerned, in the spirit of regional partnership there is planned to be full coordination and consultation among all members when deciding on disbursements.

While the basic idea behind the CMI is clear, some details remain to be clarified. Journalistic accounts suggest that 10 per cent of the funds will be available automatically while the rest will be subject to IMF conditionality. Other details of the new swap arrangements, such as the type of collateral that may be required for hard currency loans, the exact interest rate to be charged and the number of withdrawals that can be made, are not fully clear. However, economic analysis helps to identify some broad principles that need to be incorporated in the initiative.

First, the resources need to be capable of being disbursed quickly. Speed is of the essence in a crisis. Second, the credit lines need to be 'sufficiently large' as to generate confidence in private capital markets and to repel speculative attacks, as well as involving sufficient countries to avoid potential problems of co-variance and to allow the pooling of risks. Nonetheless, it remains an open issue as to what is meant by 'sufficiently large', or as Jeanne and Wyplosz (2001) note, 'how large is large?'. It is unclear as to whether the existing swaps are sufficient to tackle future capital reversals. Indeed, during the East Asian crisis of 1997–98, the ASA was not even activated as the financing levels available through these channels were considered grossly insufficient in the face of the massive capital withdrawals experienced by the regional economies. It is for this reason that one component of monetary regionalism has been an expansion of the scheme to include capital-rich North Asian economies like Japan. Third, the rate of interest needs to be sufficiently high as to guard against moral hazard, i.e. an increased readiness of creditors and debtors to court risks.¹⁰ Countries need to be discouraged from using such credit lines as a matter of course. Fourth, access to such liquidity needs to be separated from the detailed negotiation of conditionality which would prejudice quick dispersal; links to IMF conditionality may be some cause of concern. However, given the part played in the East Asian crisis by weak domestic financial structures, inadequate prudential standards and supervision, there is a strong argument for making access to the credit lines associated with the CMI conditional upon compliance with some minimum set of financial standards. This would encourage countries to push ahead with reforms to their domestic financial systems.

Park (2001) and Wang (2002) provide comprehensive descriptions of the CMI and offer useful suggestions on how it may be extended. Suffice it to note here that a credible system of regional swaps based on the principles discussed above would have two key attractions. Not only would it enable

participants to avoid the severe output losses that are associated with extreme shortages of liquidity but also, by creating confidence that such extreme shortages will not occur, the incidence of crises could be reduced. Of course, confidence would be undermined if the swap arrangements were used to try and defend disequilibrium real exchange rates and the CMI *should not* therefore be a mechanism for inappropriate currency pegging in the region. Again the history of bilateral swaps in the context of the Bretton Woods system demonstrates that they are an ineffective means of defending seriously misaligned currencies.¹¹

5. Concluding remarks: regionalism versus multilateralism

According to some observers the debate about a 'new international financial architecture' was launched at the Halifax G7 summit in 1995 and, for all extents and purposes, concluded at the Cologne summit in 1999 (Kenen 2001). Like many initially appealing and catchy phrases, the 'international financial architecture' has at best been only vaguely defined with different contributors to the debate laying the emphasis in different places. However, broadly speaking, the background to the debate was set by the Mexican peso crisis in 1994. This had convincingly demonstrated that international capital was now highly mobile and that capital volatility – both sudden inflows and sudden outflows of capital – could cause severe economic problems. Before the architecture debate really got going, the Bretton Woods Commission and others had spent some time discussing ways of dealing with capital volatility and the potential need for larger amounts of emergency lending. However, the architecture debate was taken a stage further by the East Asian crisis.

But what was the debate ever likely to achieve, and, if it has now been concluded, what has it achieved? History suggests that discrete and fundamental reform of the international financial system is an unlikely event. It occurred in 1944 at Bretton Woods but the circumstances were rather special. More arguably, it occurred in 1973 with the collapse of the Bretton Woods system but, in this case, the reform was less the outcome of a 'debate' about the design of the system and more a matter of expediency; pegging exchange rates had not worked and this left little alternative to flexible rates. The Committee of Twenty (C-20) did indeed 'debate' the design of the international financial system in the early 1970s, but this achieved relatively little of significance. The international financial architecture debate of the 1990s shares much more with the C-20 episode than it does with the Bretton Woods one; its achievements have been modest, and are likely to remain so.

Looking at the issues that have gone to make up the debate on reforming the financial architecture, and taking an Asian perspective rather than a global one, there is more reason to believe that there is both more scope for reform and more motivation to pursue it. In the main it was the East

Asian economies that suffered the costs of the 1997–98 crisis. These costs were substantial and the costs linger on. While contagion at the global level was muted, this was not the case amongst East Asian economies where, having been triggered by events in Thailand, the crisis spread to Korea, Indonesia and other regional economies. Even those that escaped the worst excesses of contagion were still adversely affected via trade effects, interest rate effects and exchange rate effects, let alone the effects of a pessimistic psychological bandwagon (Rajan 2002). Life became more difficult for all economies in the region. Subsequent research has confirmed the regional nature of contagion. Against this background, there may be relatively strong support within the region for reform which minimizes its vulnerability to future crises and contagion. Even those countries that managed to circumvent the 1997–98 crisis reasonably unscathed may believe that they might not be so fortunate on a subsequent occasion and could therefore have a vested interest in reform.

What about the regional hegemonic power? Unlike the US, for whom the 1990s were a decade of economic success, Japan has been apparently trapped in a low-level equilibrium. Indeed, the Japanese recovery that flickered in 1996 was hardly helped by the East Asian crisis in the following two years. While the US may appear to have been largely unconcerned by the crisis in Brazil in 1999 or the one in Argentina in 2001, it is reasonable to presume that Japan would be much more concerned about further economic crises in Asia and has a direct interest in seeking to avoid them (Chang and Rajan 1999; Dieter 2000). While there is always the possibility that inertia will set in as the 1997–98 crisis becomes a more distant memory, this is less likely at the regional level where the full force of the crisis was experienced than at the global level, where many influential economies managed to effectively bypass the crisis.¹²

So for the East Asian economies there is a much clearer picture that something was wrong with the situation that existed in 1997–98, and the presumption that reforms at the global level are unlikely to provide adequate mechanisms for dealing with future crises, may create a momentum for regional reform. There is also a broadly shared diagnosis among East Asian economies of what went wrong and therefore what needs to be put right. The recent initiatives that promote financial and monetary cooperation such as the Chiang Mai system which creates a regional liquidity network system, should be seen in this context.

If the Chiang Mai Initiative was to be built on as a way of providing short-term liquidity at the regional level, a natural question is the extent to which this defines an agenda for an Asian Monetary Fund (AMF). A successful introduction of a network of regional swap arrangements in East Asia (possibly enlarged to encompass most of Asia over time) has been viewed by some observers as an important step towards the eventual creation of a full-fledged regional monetary facility (Ariff 2001; Dieter 2000; Wang 2002).

Although early proposals for an AMF, coming from the Japanese government in September 1997, were opposed strongly by the US and appeared to have been dropped, the proposal re-emerged at the East Asian Summit organized by the World Economic Forum in Singapore in October 1999. In November 1999, ASEAN ministers discussed the idea at an informal summit in the Philippines (Manila). A view that little progress has been achieved in reforming the international financial architecture has further re-ignited the debate about an AMF. The precise form that an AMF would take varies across the specific proposals. The original Japanese proposal envisaged its role as being one of making available a pool of funds that would be disbursed quickly to provide emergency balance of payments support to countries in crisis. A related proposal by Malaysian Prime Minister Mahathir Mohamad envisages a wider role. Here an AMF would be 'a small compact wholly regional funding organisation which would be deeply and constantly engaged in East Asian monetary co-operation and problems on a daily basis'.¹³

The IMF's new managing director, Horst Kohler, has expressed support for regional initiatives as long as they do not compete with the IMF (Kohler 2001).

So would a new Asian financial architecture based perhaps on an Asian Monetary Fund threaten or facilitate international financial stability? Would regional reform be a stepping-stone or a stumbling block to international monetary reform? It could be a stumbling block if loans from the AMF carried conditionality that was inconsistent with that coming from the IMF. Moreover, the attitude amongst advanced economies that East Asia is looking after its own problems could reduce the urgency with which reform at the international level is pursued. It is therefore important to identify the comparative advantages of regional and international financial institutions and the division of labour between them.

Boughton (1997) has reminded us that 'although the intention was that the availability of the Fund's resources should prevent countries from experiencing financial crisis, in practice, the institution has often found itself helping its members cope with crises after they occur' (p. 3). Monetary and financial regionalism, as discussed in this paper, could help the IMF fulfil its stated aim; it is consistent with the principle of 'subsidiarity'. Why choose to deal with a problem at the global level when it can be handled adequately and perhaps more effectively at the regional level? Just as multilateral trade liberalization and multilateral trade institutions have been joined by an increasing array of regional trading arrangements, regional financial crises may be better handled by regional arrangements. To the extent that regional arrangements may help reinvigorate interests in strengthening the international financial architecture, they could act as 'stepping-stones' towards multilateral reforms rather than 'stumbling blocks' (Bird and Rajan 2000, Dieter 2000 and Park 2001 make a largely similar point). Regional arrangements ought to promote greater commitment to and national ownership of

programmes and conditionality, a point that is universally recognized as being of significant importance.

Things could be organized along the following lines. On the basis of work done by the Basle Committee, an AMF could stipulate financial standards appropriate in an Asian context. Asian countries could commit themselves to achieve these standards over a specified time frame. Being on course in terms of meeting them could then be a precondition for financial support from the AMF in the event of contagion from a regional crisis. Loans from the AMF would carry nothing equivalent to IMF conditionality and would be available only on a short-term basis, and at a high interest rate to help deal with potential moral hazard problems. The very existence of additional short-term liquidity could reduce the incidence of speculation and crisis. Countries with fundamental and longer-term economic problems would still have to turn to the IMF, where they would be exposed to IMF conditionality. By providing an extra incentive for members to reform their domestic financial systems, a process, as noted earlier, that may yet not have gone far enough, the AMF could help to prevent future crises. By providing an additional source of short-term liquidity it could take financial pressure off the IMF during crisis periods. The IMF would continue to stand ready to assist economies where regional arrangements failed to resolve problems, but, in this event, it might be more reasonable to assume that these problems were not exclusively to do with shortages of liquidity, and this would raise the credibility of IMF conditionality.¹⁴

Acknowledgments

Useful comments by an anonymous referee are gratefully acknowledged. The usual disclaimer applies.

Notes

- 1 As noted recently by Fischer (2001):

[t]he huge expansion of international capital flows of the last decade has delivered significant economic benefits to borrowers and lenders alike. But as we have seen all too often in recent years, this silver lining has a cloud. Countries have been exposed to periodic crises of confidence when large inflows of capital suddenly go into reverse. As capital flows have increased relative to the size of national economies, so too has the disruption that such reversals can cause. The spread of financial crisis is far from random: contagion tends to hit weaker economies more quickly and more forcefully than strong ones. But even so, it is hard to believe that the speed and severity with which crises spread can be justified entirely by economic fundamentals [p. 2].

- 2 For a detailed review of the IMF policies in East Asia in 1997–98, see Boorman *et al.* (2000).

- 3 Thus, Eichengreen and Rose (2001) argue that the East Asian process of – ‘V-shaped’ – adjustment has not been very different from the stylized patterns of previous currency crisis episodes in developing countries. However, the degree of initial contraction and following recovery has been far greater in East Asia, attributable to the severe liquidity crisis that was triggered by investors’ panic (Rajan and Siregar 2001; also see Park 2001).
- 4 Machlup (1964) provides a reasonably detailed technical account of how ‘mutual assistance among central banks’ was envisaged during the 1960s with the context being the series of crises that affected sterling during that time. Solomon (1977) and Yeager (1976) provide detailed accounts of how swap arrangements were organized under the umbrella of the Bank for International Settlements (BIS). It is noteworthy that attempts to ‘defend sterling’ eventually failed, with the pound being devalued in 1967.
- 5 There is a burgeoning literature on the interest rate impact on exchange rates and capital flows during a crisis period. For instance, see Furman and Stiglitz (1998).
- 6 For instance, in a recent study using a sample of twenty countries covering the periods of the 1982 Mexican debt crisis, the 1994–95 Tequila crisis and the 1997–98 Asian crisis, De Gregario and Valdes (1999) found contagion to be directly dependent on *geographical horizon*. Using a panel of annual data for nineteen developing economies for the period 1977–93, Krueger *et al.* (2000) concluded that a currency crisis in a *regional economy* raises the probability of a speculative attack on the domestic currency by about 8.5 percentage points. All of this provides rationale for developing regionally-based contingent credit facilities to buttress reserve holdings of individual countries so as to prevent sudden credit contraction due to a liquidity crisis.
- 7 Of course, Malaysia is the exception, having introduced a system of capital controls along with a fixed peg to the US dollar.
- 8 Bird (1985) provides a systematic discussion of alternative approaches to assessing the adequacy of reserves which identifies the shortcomings of the different methodologies.
- 9 While Singapore is a contributor to the ASA, it has announced its intention not to sign bilateral swap agreements under the Chiang Mai Initiative at this time.
- 10 The need to charge ‘prohibitively high’ interest rates is, of course, the classic rule for a lender of last resort proposed by Walter Bagehot. Park (2001) also discusses the issue of appropriate interest rate for a regional financial facility. Willett (2001) suggests that *ex-ante* lending facilities should follow a policy of ‘time escalating interest rates’. Admittedly, this does not solve the moral hazard problem at the creditor or investor level. The way to limit such investor moral hazard would be for the private sector to share in the burden of bailouts, i.e. ‘take a haircut’.
- 11 We should note that the Asian and Pacific region does in fact already have an existing financial cooperative scheme in place in the form of the EMEAP (Executives’ Meeting of East Asia-Pacific Central Banks). The EMEAP is a cooperative organization comprising central banks and monetary authorities of eleven economies: Australia, China, Hong Kong, Indonesia, Japan, South Korea, Malaysia, New Zealand, the Philippines, Singapore and Thailand. Spurred on by the Tequila crisis of 1994–95, substantive steps towards monetary cooperation have been taken by the EMEAP. For instance, a number of member economies signed a series of bilateral repurchase (repo) agreements in 1995 and 1996. Hong Kong and Singapore also reached an agreement to intervene in foreign exchange markets on behalf of the Bank of Japan. These creditor regional economies also attempted to help defend the Thai

bah for some period before the Bank of Thailand succumbed to the speculative pressures (Rajan 2000). There does not appear to have been any discussion in policy circles on the nexus between the EMEAP scheme and the CMI.

12 Dieter (2000) notes:

[t]he significance of the fact that Japanese observers also now advocate monetary cooperation in East Asia should not be underestimated. . . . The fact that Japan is trying to take the lead in this initiative . . . [suggests that] . . . Japanese policy makers have learnt from the missed 'golden opportunity' . . . to create an Asian Monetary Fund in 1997 and do not want to be passive bystanders this time. . . . The forward looking and inclusive character of the project is underlined by China's participation [pp. 21–2].

Hughes (1999) offers a wide-ranging discussion of Japan's role in East Asia both during and after the crisis.

13 See the World Economic Forum *Press Release* (October 19, 1999).

14 Elaborating on the issue, Park (2001) notes:

[t]here is also the argument that regional financial management could be structured and managed to be complementary to the role of the IMF. For example, an East Asian regional fund could provide additional resources to the IMF while joining forces to work on matters related to the prevention and management of financial crises. An East Asian monetary fund could also support the work of the IMF by monitoring economic developments in the region and taking part in the IMF's global surveillance activities. The East Asian monetary fund could also be designed initially as a regional lender of the last resort while the IMF assumes the role of prescribing macro-economic policies to the member countries of the East Asian monetary fund [p. 6].

References

- Ariff, M. (2001) 'The Asian Monetary Fund: is East Asia ready?', Paper presented at MIER National Economic Outlook 2002 Conference, Kuala Lumpur, November 6–7.
- Berg, A. (1999) 'The Asian crisis: causes, policy responses, and outcomes', Working Paper No. 99/138, IMF.
- Bird, G. (1985) *International Reserves: Supply, Demand and Adequacy*, London: Macmillan.
- Bird, R. and Rajan, R. (2000) 'Is there a case for an Asian Monetary Fund?', *World Economics* 1: 135–43.
- Boorman, J., Timothy, L., Schulze-Ghattas, M., Bulir, A., Ghosh, A., Hamann, J., Mourmouras, A. and Phillips, S. (2000) 'Managing financial crises – the experience in East Asia', Working Paper No. 00/107, IMF.
- Boughton, J. (1997) 'From Suez to Tequila: the Fund as crisis manager', Working Paper No. 97/90, IMF.
- Bussiere, M. and Mulder, C. (1999) 'External vulnerability in emerging market economies: how high liquidity can offset weak fundamentals and the effects of contagion', Working Paper No. 99/88, IMF.
- Chang, L. L. and Rajan, R. (1999) 'East Asian cooperation in light of the regional crises: a case of self-help or no-help?', *Australian Journal of International Affairs* 53: 261–81.

- and Rajan, R. (2001) 'The economics and politics of monetary regionalism in Asia', *ASEAN Economic Bulletin* 18: 103–18.
- De Gregario, J. and Valdes, R. (1999) 'Crisis transmission: evidence from the debt, Tequila, and Asian flu crises', Mimeo (October).
- Dieter, H. (2000) 'Monetary regionalism: regional integration without financial crises', Working Paper No. 52/00, CSGR, University of Warwick.
- Disyatat, P. (2001) 'Currency crises and foreign reserves – a simple model', Working Paper No. 01/18, IMF.
- Eichengreen, B. and Rose, A. (2001) 'To defend or not to defend? That is the question', Mimeo (February).
- Fischer, S. (2001) 'Reducing vulnerabilities: the role of the contingent credit line', Paper presented at the Inter-American Development Bank, Washington, DC, April 25.
- Furman, J. and Stiglitz, J. (1998) 'Economic crises: evidence and insights from East Asia', *Brookings Papers on Economic Activity* 2: 1–114.
- Haque, N., Kumar, M., Nelson, M. and Mathieson, D. (1996) 'The economic content of indicators of developing country creditworthiness', *IMF Staff Papers* (December).
- Hughes, C. (1999) 'Japanese policy and the East Asian crisis: abject defeat or quiet victory?', Working Paper No. 24/99, CSGR, University of Warwick.
- IMF (1999) *International Capital Markets: Development, Prospects and Key Policy Issues*, Washington, DC: IMF (September).
- (2000) *World Economic Outlook 2000*, Washington, DC: IMF (May).
- (2001) *World Economic Outlook 2001*, Washington, DC: IMF (May).
- Jeanne, O. and Wyplosz, C. (2001) 'The international lender of last resort: how large is large enough?', Working Paper No. 01/76, IMF.
- Kenen, P. (2001) *The International Financial Architecture: What's New? What's Missing?*, Washington, DC: Institute for International Economics.
- Kohler, H. (2001) 'New challenges for exchange rate policy', Paper presented at the Asia–Europe Meeting of Finance Ministers, Kobe, Japan, January 13.
- Krueger, M., Osakwe, P. and Page, J. (2000) 'Fundamentals, contagion and currency crises: an empirical analysis', *Development Policy Review* 18: 257–74.
- Krugman, P. (1999) 'Balance sheets, the transfer problem, and financial crisis', in P. Isard, A. Razin and A. Rose (eds) *International Finance and Financial Crises*, Essays in Honor of Robert P. Flood, Kluwer: Dordrecht.
- Machlup, F. (1964) 'Plans for reform of the international monetary system', *Special Papers in International Economics No. 3*, International Economics Section, Princeton University.
- Park, Y. C. (2001) 'Beyond the Chiang Mai Initiative: rationale and need for a regional monetary arrangement in East Asia', Mimeo (June).
- Rajan, R. (1999) 'Economic collapse in Southeast Asia', *Policy Study*, The Lowe Institute of Political Economy, Claremont Colleges, California (July).
- (2000) 'Financial and macroeconomic cooperation in ASEAN: issues and policy initiatives', in M. Than (ed.) *ASEAN Beyond the Regional Crisis: Challenges and Initiatives*, Singapore: Institute of Southeast Asian Studies.
- (2001) '(Ir)relevance of currency crises theory to the devaluation and collapse of the Thai baht', *Princeton Studies in International Economics No. 88*, International Economics Section, Princeton University.
- (2002) 'Safeguarding against capital account crises: unilateral, regional and multilateral options for East Asia', in G. de Brouwer (ed.) *Financial Arrangements in East Asia*, London: Routledge (forthcoming).
- and Shen, C. H. (2001) 'Are crisis-induced devaluations contractionary?', CIES Discussion Paper No. 0135, Centre for International Economic Studies, University of Adelaide.

- and Siregar, R. (2002) 'Private capital flows in East Asia: boom, bust and beyond', in G. de Brouwer (ed.) *Financial Markets and Policies in East Asia*, London: Routledge.
- Solomon, R. (1977) *The International Monetary System, 1945–1976*, New York: Harper & Row.
- Wang, Y. (2002) 'Instruments and techniques for financial cooperation', in G. de Brouwer (ed.) *Financial Arrangements in East Asia*, London: Routledge (forthcoming).
- Willett, T. (2001) 'Restructuring IMF facilities to separate lender of last resort and conditionality programs: the Meltzer Commission recommendations as complements rather than substitutes', Working Papers in Economics No. 28, Claremont Colleges, California. Forthcoming in the *World Economy*.
- Yeager, L. B. (1976) *International Monetary Relations: Theory, History and Policy*, 2nd edn, New York: Harper & Row.