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Still the Weakest Link: the Domestic Financial System and Post-1998 Recovery in East Asia

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July 2001

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STILL THE WEAKEST LINK: THE DOMESTIC FINANCIAL SYSTEM AND POST-1998 RECOVERY IN EAST ASIA

Abstract

To what extent and within what time frame did countries in East Asia recover from the 1997-98 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: bank lending, capital flows, East Asia, FDI, financial reforms, portfolio flows

JEL Classification: F30, F32, F41

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1. INTRODUCTION

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 1998 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.

The layout of the paper is as follows. Section 2 begins with an examination of post crisis performance by investigating what happened to capital flows after 1998; the East Asian financial crisis has been perceived as a crisis of the capital account of the balance of payments[1]. Section 3 goes on to examine output performance to see how enduring the output losses associated with the crisis have been. It also briefly examines economic performance in terms of inflation and the exchange rate. Many analyses of the East Asian crisis have pointed to the relatively strong performance of countries in the region in terms of savings rates, fiscal balances and rates of inflation prior to the crisis and then have instead identified weaknesses in the domestic financial system as being fundamental (for instance, see Rajan, 1999). The structure of domestic financial systems has frequently been presented as the "weakest link". Section 4 therefore examines the progress that has been made to rectify these

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[1] For instance, Caballero and Krishnamurthy (1998) have observed that

> the Asian crisis is just the most recent chapter of an increasing trend toward shifting the “blame” from current to capital account issues. Many think that this trend is an almost unavoidable side effect of increasing globalization of capital markets (p.2).

deficiencies. If progress has been slow and inadequate, this could leave the region exposed to another crisis. Section 5 offers some concluding observations about what still needs to be done to strengthen the domestic financial sector within the East Asian economies.

2. Post-1998 Performance: The Capital Account

The Asia-5 economies most impacted by the crisis (i.e. Indonesia, Malaysia, South Korea, Philippines and Thailand) experienced a sharp reversal in net private capital flows of almost $100 billion between 1996 and 1998, largely as a consequence of short term bank flows which are incorporated into "other net investments" category (IMF, 2001). Quarterly BIS data on banking flows show that international bank lending to the crisis countries was positive at almost $50 billion in the first half of 1997, but swung to -$40 billion in the third quarter of 1997, thereafter averaging close to -$100 billion for the three quarters that followed (BIS, 1999)[2]. The sudden reversal in bank lending from the region is often portrayed as evidence of a bank panic model (Chang and Velasco, 1998, Rajan, 2001 and Rajan and Siregar, 2001). Another important aspect of the sharp contraction in private market financing is seen to be the decline in portfolio flows in 1997-98, as investors too tried to scale down their regional financial exposures. Net portfolio investment saw a sudden and sharp turnaround of over $30 billion between 1996 and 1998 (from $24 billion in 1996 to -$9 billion in 1998). It was only FDI flows that remained stable during the crisis period, averaging about $10 billion annually.

By early 1998 capital outflows appeared to be abating in all the regional economies except Indonesia. However, market turbulence returned following the devaluation and debt default in Russia and the near-collapse of the US hedge fund, LTCM. Moreover, depreciation of the Japanese yen vis-à-vis the US dollar caused

[2] Interestingly, the data also reveal that while Japanese and US banks reduced their exposures in Asia-5 between June and December 1997, the European banks were still

further anxiety about the recovery prospects for other Asian economies. Combined, these factors were reflected in a sharp rise in secondary market spreads for all major East Asian borrowers in August and September 1998. The downturn proved to be temporary. The easing of interest rates in the US and other industrial countries, as well perhaps as the IMF agreement for Brazil, worked in tandem to generate a broad-based recovery in emerging markets in general by the fourth quarter of 1998 (BIS, 1999 and IMF, 1999).

While capital flows have varied significantly across the Asia-5 economies, in aggregate, net private capital outflows, which totaled slightly over $40 billion in 1997 and 1998, slowed down to $20 billion in aggregate in 1999 and 2000. Closer examination of IMF data on capital flows for 1999 reveal some important points.

First, bank-related outflows in net terms continued despite the renewed willingness of lenders to maintain, if not slightly increase, exposures to the region. The repayments that brought this about were largely concentrated in Thailand and Indonesia. Unlike the crisis period, loan repayments had been "anticipated and scheduled and hence did not lead to significant financial dislocations" (ARIC, 2000, p. 6)[3]. According to the IIF (2001), net repayments by *all* Asian economies to banks totaled almost $100 billion in 1998 and 1999[4].

What about equity investments? Portfolio equity investment flows appeared to have stabilised and turned positive ($8 billion in aggregate in 1999-2000). FDI flows continued being positive mainly due to sharply depreciated asset values and

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expanding their lending to the region in these few months (Rajan and Siregar, 2001).

[3] The ARIC stands for the "Asia Recovery Information Centre", which is an online project managed by the Asian Development Bank and funded by AusAiD, the Australian government's overseas aid program. The ARIC regularly publishes an "Asian Recovery Report". See www.aric.org.

[4] Additional insight might be obtained from the BIS data on nationality of creditor banks (Rajan and Siregar, 2001). While all major creditor banks between December 1997 and June 1998 reduced their stocks of outstanding loans to the region, this trend continued between June 1998 and June 1999 only in the cases of Japanese and UK banks, as most of the repayments by Asian borrowers were focused on these two creditors. In contrast, outstanding loans by US, French and German banks stabilised.

exchange rates and relaxation of foreign ownership rules which spurred merger and acquisitions (M&As) activities in Korea. However, Asia-5 economies' share of FDI to the whole of the developing East Asian region has been on a declining trend, particularly so in the case of the Southeast Asian economies (i.e. Asia-5 minus Korea). The decline appears to be a reflection of growing concerns by international investors about the commitment by some of the economies to structural reforms, along with heightened political uncertainties in a number of these countries (ARIC, 2001a,b).

While it is certainly revealing that FDI has *not* been stimulated in the Southeast Asian economies despite large currency depreciations and reductions in domestic asset values, Indonesia was the only country where the actual *stock* of FDI continued to be eroded with net outflows since 1998. Two way Granger-causality between direct investment and GDP for Indonesia using quarterly data from second quarter of 1986 to the fourth quarter of 1999 is instructive. The causality test reveals only one direction causality to be significant, viz. movements in direct investment Granger-cause currency variations in GDP growth (with a two period lag). In other words, the collapse of direct investment in Indonesia (both domestic and foreign) may have contributed significantly to a worsening of the country's growth (Rajan and Siregar, 2001).

3. Post Crisis Performance: Output and Competitiveness

As Figure 1 shows, the growth performance in the economies of East Asia broadly mirrored the dynamics of capital flows. Having contracted markedly in 1998 with falling capital investment and private consumption, the revival began in early-to-mid 1999. Recovery was in particular fuelled by rapid growth in exports, itself aided by a combination of strong global growth, an upturn in the demand for electronics and perhaps a lagged as well as a contemporary response to depreciations in the regional currencies.

Notwithstanding the rebound in output, however, concerns remain about whether the growth momentum can be sustained. The external environment turned more unfavorable in mid-2000, with a global economic slowdown, weakening in the markets for semiconductors and high technology products (which constitute about one third of the exports of the Asia-5 economies), and adverse oil price movements. Domestic private demand, while increasing, was unable to pick up all the slack left by a slowdown in exports. There appears to be little scope for public consumption to expand in many of the economies (Indonesia, Philippines and Thailand) because of the rising debt burden which followed the socialisation of financial sector losses and the implications that this has had for the public finances (Table 1).

At the same time as there has been a recovery in output; inflation has been kept under control, ensuring that real exchange rates have not appreciated. Current account balance of payments surpluses have been used to replenish and build up international reserves and this, alongside the lengthening of the average maturity of external indebtedness as shown in Table 2, has probably reduced the economies' vulnerability to the destabilising effects of volatile capital flows[5]. The regional economies begun re-accumulating international reserve holdings following the sharp declines in 1997, implying that the current account surpluses exceeded the total capital outflows (IIF, 2001).

4. Financial Containment and Restructuring: What Progress?

Financial sector restructuring has been presented as an essential element in structural adjustment programs in the East Asian economies (Lane and Associates, 1998). There are broadly two phases in resolving financial system distress; "containment" and "restructuring".

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[5] The extent of short-term indebtedness has been found to be a robust predictor of financial crises (Rodrik and Velasco, 1999 and World Bank, 2000b).

The containment or "distress resolution" phase occurs during the onset of a financial crisis when there has been a loss of confidence in the financial system. The primary strategic consideration here is to stabilise the financial system and to prevent a credit crunch and an economic slowdown, which then exacerbates financial difficulties. This usually involves providing large-scale liquidity support to financial institutions. The secondary aim is to limit losses. This may involve closing unviable banks, mergers or even nationalisation. In order to prevent bank panics, government guarantees on liabilities of existing banks may also be issued[6]. As the Indonesian experience illustrates, a failure to "contain" may exacerbate financial turbulence with potentially severe sociopolitical repercussions[7]. Empirical analysis by Honohan and Klingebiel (2000) reveals that unlimited deposit guarantees, open-ended liquidity support and repeated recapitalisations are among the factors that can significantly add to the fiscal costs of banking crisis and restructuring[8].

Having been through the containment stage, the Asia-5 economies are now embarked on a process of rehabilitation and restructuring[9]. At the risk of generalising, governments in the Asia-5 economies have attempted to restructure their financial systems by:

- closing down commercial banks and finance companies;

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[6] There is an important practical issue of being able to decide between *illiquid* but solvent versus *insolvent* financial institutions. As noted by Lindgren et al. (1999) of the Thai debacle

> The selection of nonviable institutions to be closed relied largely on liquidity indicators, such as borrowing from the central banks…The liquidity triggers typically included the size of central bank credit as a multiple of bank capital. Only later, as more information became available either through special audits or the supervisory process, could solvency indicators be used as criteria for choosing nonviable institutions (p.34).

[7] Two problems faced by Indonesia in particular but also the other crisis-hit economies during the phase were (a) acute loss of macroeconomic confidence following excessive monetary creation to provide liquidity to the distressed financial system and (b) the sudden (and non-transparent) closure of insolvent financial institutions.

[8] Accordingly, they favour a “strict” approach to crisis resolution rather than an “accommodating” one.

[9] Only an overview is provided here. For detailed discussions of financial restructuring in the Asia-5 economies, see ADB (2000), ARIC (2000, 2001a), Claessens et al. (2000), Kawaii

- merging some existing institutions and nationalising others;
- permitting foreign investment into the financial sector;
- injecting public funds to recapitalised viable banks;
- putting in place systematic asset resolution strategies.

Table 3 provides some information on the measures taken by the regional economies to restructure financial systems.

With regard to asset resolution, all the regional economies except Thailand have transferred nonperforming loans (NPLs) from banks to centralised Asset Management Companies (AMCs)[10]. In Thailand, banks were initially left individually responsible for establishing their own AMCs. The Thai government did establish the Financial Restructuring Authority (FRA) in October 1997 to review rehabilitation plans of the 58 suspended finance companies and to oversee their liquidation (all but two were shut down.) An asset management company was also set up centrally but only as a buyer or bidder of last resort for the lowest quality assets in order to prevent a fire sale of assets of the 56 closed finance companies.

Referring to Table 1 again, all the economies have made some headway in reducing nonperforming loans (NPLs). NPL ratios for commercial banks in Korea and Malaysia have fallen to less than 10 percent, due in part to rapid economic recovery (i.e. banks have to some extent grown out of their problems). In contrast, NPLs have remained high in Thailand (about 30 percent), perhaps reflecting the Thai government's preference for a more market-oriented approach to financial restructuring. However, according to some estimates between a one fifth and a third of the NPLs in Thailand are "strategic" in the sense that borrowers, while able to repay, are unwilling to do so since legal recourse by creditors tends to be rather ineffective (discussed below). Interestingly, Thailand has recently announced that a

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(2000), Lindgren et al. (1999) and World Bank (2000a,b).

[10] See Klingebiel (1999) for a detailed discussion of cross-country experiences with the use of AMCs in banking crisis resolutions.

centralised AMC is to be established to carve out NPLs of the state and private banks, which, as noted, remain stubbornly high (ARIC, 2001a,b).

A recent report on the Asia-5 economies describes the state of events relating to the cleaning up of the banks' balance sheets by the AMCs in the following way (ARIC, 2000).

> During 2000, debt restructuring through…(AMCs) has made further progress in Korea and Malaysia, as well as Indonesia….The Korea Asset Management Corporation (KAMCO) purchased more than 50 percent of the banking system's NPLs by July 2000 and had disposed of the 40 percent of those it had acquired. Danaharta had acquired a little more than 40 percent of NPLs in the Malaysian banking system by August 2000, amounting to about 15 percent of the country's GDP. It is estimated that, as of June 2000, Danaharta had disposed of 61 percent of the NPLs under its jurisdiction. In Indonesia, it is estimated that more than 75 percent of the total NPLs in the banking system, amounting to 60 percent of GDP, are now under IBRA's control. However, uncooperative and politically powerful debtors, and an inadequate legislative and regulatory environment have hampered the recovery of asset values in the country. As of June 2000, only 0.35 percent, representing corporate loans, of acquired NPLs has been disposed of by IBRA…..In Thailand, it was reported that almost all the loans of closed financial institutions acquired by the Financial Sector Restructuring Agency (FRA) had been disposed of by December 1999. No data on debt restructuring by commercial banks are available, but some banks are reportedly back to profitability (pp. 12-3).

Thus, while these transfers have helped to recapitalise banks and reduce NPLs, the disposal of assets by the AMCs has been rather slow. This has been due at least partly to the fact that the assets transferred to the AMCs are corporate and not real estate which are easier to restructure. Additional factors such as political influence and uncertainties, powerful debtors and lack of interested buyers, inadequate bankruptcy and foreclosure laws and opaqueness in operations and processes, are cited as reasons for the slow asset disposal in the regional economies (ARIC, 2000, 2001a,b).

Failure to adequately address banking sector problems can be a severe impediment to corporate debt resolution and restructuring. Indirect evidence of market concerns regarding lack of progress in financial restructuring in the Asia-5 economies is captured by trends in the ratio of the financial stock index to the overall (general) stock index (ARIC, 2000). This ratio recovered to its pre-crisis level only in

Malaysia. At the other extreme, the ratio is only about one quarter of its pre-crisis level in Indonesia and it has deteriorated rapidly recently in the case of the Philippines. The indices in Korea and Thailand are stuck at about half their pre-crisis values. All of this appears to suggest that there is continuing concern about the health of the financial systems in the Asia-5 economies, with the possible exception of Malaysia.

Slow progress towards corporate debt restructuring is the single biggest obstacle towards improving banks' balance sheets and, consequently, domestic credit availability, particularly to small and medium-sized enterprises[11]. Table 4 summarises progress with corporate restructuring in four of the five crisis-hit economies. By and large, corporate restructuring has lagged behind financial sector restructuring. Korea has been the front-runner, having introduced measures to strengthen corporate governance, with Indonesia making the least progress. However, even in Korea, while there have been some reductions in the debt-equity ratios of the largest chaebols, corporate restructuring remains a daunting task. Operational restructuring of ailing corporates has not kept pace with restructuring of their financial obligations in terms of reducing debt-equity ratios (through rescheduling debt and lengthening the maturity of corporate debt). The ARIC (2001b) has made the following observation

> Ultimately, an improvement in debt servicing capacity requires a return to operational profitability. Progress in operational restructuring of the corporate sector has generally been patchy in all five crisis countries. There are several constraints on operational restructuring of the corporate sectors, including excessive concentration of ownership of businesses, political interference, worker resistance, inadequate insolvency and bankruptcy laws, and ineffective judiciary (p.13).

[11] SMEs have been especially hard hit by the credit crunch, particularly since many are in the nontradable sector. In Thailand, small firms and households account for half of the NPLs (ADB, 2000 and World Bank, 2000a,b).

Notwithstanding efforts to introduce or make more effective bankruptcy laws in all the countries, the judicial systems in a number of them remain rather weak. The ARIC (2000) summarises the situation as follows

> Bankruptcy courts, particularly in Indonesia and Thailand, may have difficulty coping with the backlog of cases that is likely to build up. If institutions prove to be ineffective in resolving the debt overhang, this will bode badly for international investment and could again threaten bank capital…..Following restructuring, some debtors have run into difficulties anew. It would seem that the needed operational reforms do not always accompany balance sheet restructuring. Capacity utilization rates are, in general, on the rise, but substantial excess capacity remains in some sectors. Resistance to the painful changes that are required will ultimately have an adverse effect on competitiveness and foreign investor sentiment (p. 22).

5. Concluding Remarks: What Needs to be Done?

The crisis countries have made some important strides with regard to bank recapitalisation and rehabilitation. While Korea and Malaysia have been front-runners in efforts to strengthen their financial systems, Thailand and Indonesia, in particular, have lagged behind. A positive sign is that some banks in the region are gradually returning to profitability, as measured by the average return on equity (ARIC, 2001a,b). Nonetheless, concerns exist about the future path of policy reforms. There are signs of waning reform commitments following the global economic slowdown and domestic political concerns, especially so in the case of Indonesia.

There can be little room for complacency, when some of the long-term reforms to enhance the overall efficiency and robustness of the domestic financial system as well as operational corporate restructuring remain to be tackled. A list of such measures might include limiting government guarantees and, where these are deemed necessary, ensuring that they are explicit and appropriately priced; diversifying financial systems to reduce dependence on bank intermediation through the development of equity, insurance and bond markets[12]; enhancing the

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[12] The need to develop domestic and regional bond markets has been belatedly recognised by the regional economies. The Bank of Thailand's former governor, Chatu Mongol Sonakul (2000), recently noted

> (T)he biggest challenge to us all must be how the crisis could have been avoided in

transparency in the financial system, developing an efficient bankruptcy regime, as well as strengthening corporate and financial governance structures (such and protecting the rights of minority shareholders).

While all these measures are critical, it cannot be sufficiently emphasised that a key difference between the crisis-hit economies (Thailand in particular) and the less affected ones, was the lax prudential regulations (either *de facto* or *de jure*) of the private sector in the former. At least part of this was due to the misunderstanding of the concepts of *liberalisation* versus *reform*. In the haste to liberalise their economies (the financial sector in particular), so as to integrate with the global economy in a market-consistent manner, some of the East Asian economies essentially "threw caution to the winds". A well-functioning market economy does *not* mean no government intervention per se; financial globalisation requires the role of government to be shifted from being an active participant (through, for instance, state ownership of banks and other monopolies) to one that focuses on acting as an independent, objective "mediator", "rule-maker" and "enforcer". To this end a strong and independent bank supervisory function free from political interference is essential, as is establishing a comprehensive regulatory and supervisory framework. As Stanley Fischer (1997) has noted

> It is fair to say…that we should never be confident that supervisory systems are adequate; this is an area where the IMF's standard caution - complacency should be avoided - is always appropriate…Supervisors must be guided by the principle of maintaining the integrity of the system as a whole rather than that of individual institutions (pp.15-6).

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the first place. If can turn back the clock and have a wish, my list may be long. But high in its ranking would be a well functioning Thai baht bond market…..a bond market provides a basic infrastructure for the development of the financial system and the overall economy. The bond market is an important alternative to bank lending (comments presented at the ADB Conference on Government Bond Market and Financial Sector Development in Developing Asian Economies, Manila, March 28-30, 2000).

Measures here include limiting bank exposures to the property sector, strengthening lending guidelines, and ensuring that international banking and accounting standards are met[13].

Internationalising the financial system (i.e. elimination of discrimination between foreign and domestic financial services providers) to raise its efficiency is also an important medium and longer-term policy measure to enhance the overall efficiency of the banking system. While the General Agreement of Trade in Services (GATS) recognises the right of countries to maintain sovereignty over prudential and related regulations of all financial firms resident in the country (Mattoo, 2000), studies suggest that the introduction of foreign banks into developing countries will create domestic pressure for local banking authorities in the host countries to enhance and eventually harmonise regulatory and supervisory procedures and standards to international standards, particularly with regard to risk management practices (Levine, 1996 and Claessens and Glaessner, 1998). Moreover, if the banking system has a more internationally diversified asset base, it could be less prone to instability and financial crises[14]. Steps have already been taken in the direction of internationalisation of the financial system by some of the regional economies. Care must be taken, however, to ensure that foreign competition is introduced gradually. In order to avoid disrupting the domestic financial system by enticing domestic banks to opt for increasingly risky investments (i.e. "gambling for redemption"). Without this, an increase in bad loans due to risky investments could offset the efficiency gains associated with greater international competition.

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[13] See Mishkin (2000) for a comprehensive discussion of prudential supervision of financial institutions in emerging economies with particular reference to crisis prevention.

[14] See IMF (2000, chapter 6) for a balanced and up-to-date discussion of the role of foreign banks in emerging economies.

References

Asian Development Bank (2000). Asian Development Outlook 2000, Manila: Oxford University Press.

Asia Recovery Information Centre (ARIC) (2000). Asia Recovery Report 2000 (October). Available on www.aric.org.

Asia Recovery Information Centre (ARIC) (2001a). Asia Recovery Report 2001 (March). Available on www.aric.org.

Asia Recovery Information Centre (ARIC) (2001b). Asia Recovery Report 2001: Update (June). Available on www.aric.org.

Bank of International Settlements (BIS) (1999). 69th Annual Report, Basle: BIS.

Caballero, R. and A. Krishnamurthy (1998). "Emerging Market Crises: An Asset Markets Perspective", Working Paper No.6843, NBER.

Chang, R. and A. Velasco (1998). "The Asian Liquidity Crisis", Working Paper No.6796, NBER.

Claessens, S., S. Djankov and D. Klingbiel (2000). "Financial Restructuring in East Asia: Halfway There?", Financial Sector Discussion Paper No.3, World Bank.

Claessens, S. and T. Glaessner (1998). "Internationalization of Financial Services in Asia," Policy Research Working Paper 1911, World Bank.

Fischer, S. (1997). "Financial System Soundness", Finance and Development, March, pp.14-6.

Honohan, P. and D. Klingebiel (2000). "Controlling Fiscal Costs of Banking Crises", Policy Research Working Paper No.2441, World Bank.

IMF (1999). International Capital Markets: Development, Prospects and Key Policy Issues, Washington, DC: IMF (September).

IMF (2000). International Capital Markets: Development, Prospects and Key Policy Issues, Washington, DC: IMF (September).

IMF (2001). World Economic Outlook 2000, Washington, DC: IMF (May).

Institute of International Finance (IIF) (2001). "Regional Overview: Asia" (April).

Kawaii, M. (2001). "Bank and Corporate Restructuring in Crisis-Affected East Asia: From Systematic Collapse to Reconstruction", in G. de Brouwer (ed.), Financial Markets and Policies in East Asia, Routledge, forthcoming.

Klingebiel, D. (2000). "The Use of Asset Management Companies in the Resolution of Banking Crises: Cross-Country Experiences", mimeo, World Bank (February).

Lane, T., A. Ghosh, J. Hamann, S. Phillips, M. Schultze-Ghattas and T. Tsikata (1999). "IMF-Supported Programs in Indonesia, Korea, and Thailand: A Preliminary Assessment", Occasional Paper 178, IMF.

Levine, R. (1996). "Foreign Banks, Financial Development, and Economic Growth," in C. Barfield (ed.), International Financial Markets: Harmonization Versus Competition, Washington, DC: AEI Press.

Lindgren, C. T. Balino, C. Enoch, A. Gulde, M. Quintyn and L. Teo (1999). Financial Sector Crisis and Restructuring: Lessons from Asia, Washington, DC: IMF.

Mattoo, A. (2000). "Financial Services and the WTO: Liberalisation Commitments of the Developing and Transition Economies", The World Economy, 23, pp.351-86.

Mishkin, F. (2000). "Prudential Supervision: Why Is It Important and What are the Issues?", Working Paper No.7926, NBER.

Rajan, R. (1999). "Economic Collapse in Southeast Asia", Policy Study, The Lowe Institute of Political Economy, Claremont, California (March).

Rajan, R. (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 (February).

Rajan, R. and R. Siregar (2001). "Private Capital Flows in East Asia: Boom, Bust and Beyond", in G. de Brouwer (ed.), Financial Markets and Policies in East Asia, Routledge, forthcoming.

Rodrik, D. and A. Velasco (1999). "Short-Term Capital Flows", Working Paper No.7364, NBER.

World Bank (2000a). East Asia Recovery and Beyond, New York: Oxford University Press.

World Bank (2000b). Global Development Finance 2000, New York: Oxford University Press.

Table 1
Nonperforming Loan Ratios and Fiscal Costs of Restructuring in the Asia-5 Economies, 1997-99
(percent)

	Share of NPLs to Total Loans official estimate			Share of NPLs to Total Loans unofficial estimate	Fiscal costs of Restructuring as share of GDP
	End 1997	End 1998	September 1999	Peak Level	
Indonesia	n.a.	n.a.	n.a.	60 - 85	58
Korea	n.a.	7.6	6.6	20 - 30	16
Malaysia	n.a.	18.9	17.8	20 - 30	10
Philippines	5.4	11.0	13.4	15 - 25	n.a.
Thailand	19.8	45.0	44.7	50 - 70	32

Notes: NPLs are measured on a three-month basis; and the unofficial estimate includes assets carved out for sale by the AMCs
Source: ADB (2000)

Table 2
External Debt of the Asia-5 Economies, 1995-1999
(percent 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
***of which:* Short Term Debt**						
Indonesia[a]	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

Notes: a) The data for Indonesia exclude trade credits
Source: IMF (2000)

Table 3
Summary of Measures to Deal with the Financial Crisis in the Asia-5 Economies

Measures	Indonesia	Korea	Malaysia	Philippine	Thailand
Containment Measures					
Liquidity support	Yes	Yes	Yes	Yes	Yes
Introduction of a blanket guarantee	Yes	Yes	Yes	No	Yes
Institutional measures					
Establishment of an over-arching restructuring authority	Yes	Yes	Yes[a]	No	No
Establishment of a separate bank restructuring authority	Yes	No	Yes	No	No
Establishment of a centralised asset management corporation	Yes	Yes[b]	Yes	No	No[c]
Adoption of a special corporate debt restructuring framework	Yes	Yes	Yes	No	Yes
Operational autonomy of restructuring Agencies	Limited	Yes	Yes	n.a.	n.a.
Restructuring measures					
Intervention in financial institutions that were weak or insolvent. This would include:	Yes	Yes	Yes	Yes	Yes
- Mergers of weak institutions	Yes[d]	Yes	Yes	Yes	Yes[d]
- Closure of insolvent institutions	Yes	Yes	No	Yes	Yes
Use of public funds to purchase nonperforming assets	Yes	Yes	Yes	No	No
Use of public funds to recapitalise institutions including:	Yes	Yes	Yes	No	Yes
- State intervention in banks	Yes	Yes	Yes	No	Yes
Elimination or dilution of current shareholder stakes of insolvent banks	Yes	Yes	Yes	Yes	Yes
Other measures					
Measures to encourage corporate restructuring	Yes	Yes	Yes	Yes	Yes
Steps to improve prudential supervision and regulation	Yes	Yes	Yes	Yes	Yes

Notes: a) Steering committee chaired by the central banks; b) the powers of pre-existing AMC were substantially increased; c) the FRA was established to illiquidate 56 closed finance companies, and the AMC to deal with residual FRA assets; d) between government owned intervened institutions

Sources: Lindgren et al. (1999)

Table 4
Progress with Corporate Restructuring, Third Quarter 1999

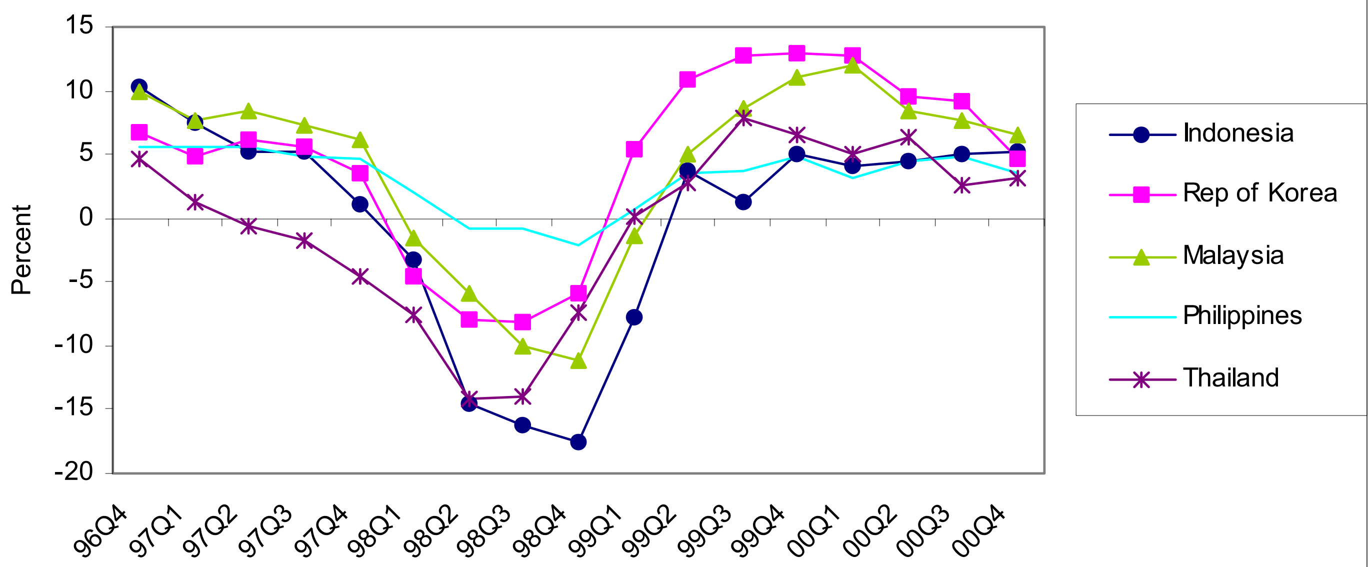
Out-of-court procedures	**Indonesia**	**Malaysia**	**Rep. Of Korea**	**Thailand**
All or the majority of financial institutions signed on to accord	No	Yes	Yes	Yes
Formal process of arbitration exists, with deadlines	No	Yes	No	Yes
Provision of penalties for noncompliance	No	No	Yes	Yes
Out-of-court restructurings				825
Number of registered cases	234	53	92	430
Number of cases started	157	27	83	167
Number of restructured cases	22	10	46	22
Percentage of restructured debt in total debt	13	32	40	
In-court restructurings				
Number of registered cases	88	52	48	30
Number of cases started	78	34	27	22
Number of restructured cases	8	12	19	8
Percentage of restructured debt in total debt	4	..	8	7

.. Not available

Notes: a) In Thailand, penalties for noncompliance were introduced in August 1999 for creditors who had signed intercreditor agreements

Source: Claessens, et al. (2000)

Figure 1
Quarterly GDP Growth Rate
(% y-o-y)



Source: ARIC website (www.aric.org)

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