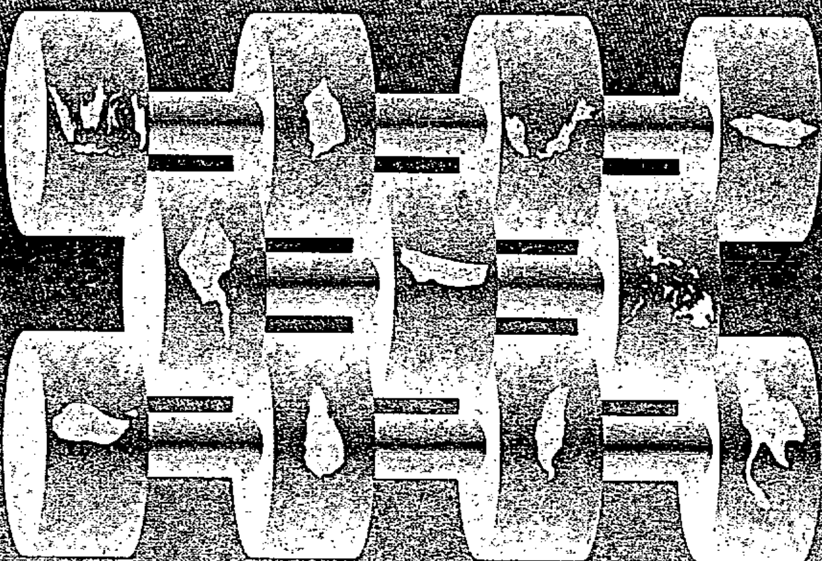
THE ASIAN CURRENCY AND FINANCIAL CRISIS: DID THE TWIN LIBERALISATIONS MATTER?

The Experience of the SEACEN Countries

Vol. I: MAIN REPORT



Ma. Cristina S. Medilo

The South East Asian Central Banks
Research and Training Centre

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The Experience of the SEACEN Countries

VOLUME I

Main Report

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Ma. Cristina S. Medilo**

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FOREWORD

Various theories have been proposed on the possible causes of the currency and financial crisis (or the "twin crises") that swept across the emerging Asian economies beginning July 1997. One widely held view traces the roots of the crisis to weaknesses in the financial system of the affected economies, which, this theory argues, may be traced ultimately to the untimely or inappropriate liberalisation of the capital account and the domestic financial sector (or the "twin liberalisations").

According to this view, the liberalisation of the capital account (particularly of short-term prior to long-term transactions), along with pegged exchange rates and high interest rate differentials, encouraged short-term foreign borrowing to finance local-currency lending in most of the crisis-hit Asian economies. The inflow of foreign funds thus fueled the expansion of domestic credit, and with it, risky lending, as the deregulation of the domestic financial sector reduced the incentives for effective risk management. In particular, increased local-currency lending using foreign borrowings gave rise to currency mismatches. Moreover, the rapid growth of domestic credit resulted in maturity mismatches, as mostly short-term foreign borrowings were channeled to mostly long-term domestic loans. These factors weakened the financial institutions of the affected economies severely. When the currency crisis struck, a financial meltdown was inevitable.

While this view suggests a link between the twin liberalisations and the twin crises, it is interesting to note that there has been no effort to make a thorough review of the capital account and financial sector liberalisation programmes in the affected economies, in light of the crisis. It is also worth noting that, apart from Japan, the countries that were affected by the crisis are all members of the association of South East Asian Central Banks (SEACEN). However, among the affected SEACEN economies, some were severely hit by the crisis, while others were left relatively unscathed. These divergent experiences in the face of the crisis could be attributed to, among other factors, these countries' varying approaches to liberalisation.

This collaborative study by the SEACEN member countries probes the link between the twin liberalisations and the twin crises by examining the implementation of the twin liberalisations in the SEACEN countries, and how these could have contributed to the currency and financial turmoil. It is deemed timely and relevant as it provides policy directions pertaining to the implementation of the twin liberalisations, particularly in the aftermath of the crisis, when the merits of liberalisation and globalisation are being questioned and relatively closed economies are considering whether and how to undertake the liberalisation of the domestic financial sector and the capital account.

The research project was designed by Ms. Maria Cristina S. Medilo, Project Leader, of the Bangko Sentral ng Pilipinas (BSP), under the guidance of Mr. Diwa C. Guinigundo, Managing Director for Research of the BSP, and Dr. Delano Villanueva, former Deputy Director for Research of The SEACEN Research and Training Centre. This Project Report is the fruit of the collaborative work of eight researchers from the SEACEN member countries that participated in the project, namely, (a) Mr. Endy Dwi Tjahjono of Bank Indonesia, (b) Mr. Yusoff Sulong of Bank Negara Malaysia, (c) Ms. April Tan of the Monetary Authority of Singapore, (d) Mr. Hwanseok Lee and Dr. Jong Kyu Lee of The Bank of Korea, (e) Mr. K. M. Abeykoon of the Central Bank of Sri Lanka, (f) Dr. Chien-Nan Wang of The Central Bank of China, Taipei, (g) Dr. Mathinee Subhaswadikul of the Bank of Thailand, and (h) Ms. Medilo of the BSP. While the researchers worked independently on their respective country papers, two workshops in Kuala Lumpur, Malaysia provided a venue for interaction. During the first workshop, the researchers discussed and finalised the terms of reference for the project. At the second workshop, the researchers presented their country papers. The rich exchange on these occasions enabled the group to collectively chart the course of the project and bring it to a successful conclusion.

Owing to its voluminous size, the Report is divided into two volumes. Volume I presents the Main Report, which includes the Conceptual Framework, Methodology, Integrative Report on the Country Experiences, Summary and Conclusions, and Policy Implications, was written by Ms. Medilo. Volume II contains the country papers prepared by the respective country researchers.

Apart from Mr. Guinigundo, who supported the project from its inception, and Mr. Villanueva, who guided the project in its beginnings, the project owes much to the logistical support provided by The SEACEN Centre. In particular, Ms. Kanaengnid T. Quah, Acting Assistant Director for Research, provided technical advice as well as administrative support during the course of the project, and Ms. Seow Yun Yee, Senior Research Associate, prepared the Main Report and individual country papers for publication. The project also profited from the comments provided by the departments of research of member central banks and monetary authorities on an earlier draft of the Main Report. Special thanks are also due to Dr. Joseph Y. Lim, Professor, University of the Philippines School of Economics, who provided major references for the Conceptual Framework, and Ms. Louiseville G. Jungco, research assistant, who helped consolidate the cross-country data.

The SEACEN Centre takes this opportunity to express its sincere gratitude to the departments of research of the member central banks and monetary authorities for giving their full support to this project, particularly in giving sufficient time to their researchers to work on their respective country papers.

The views expressed in this report, however, are solely those of the authors and do not necessarily reflect the views of the member central banks and monetary authorities or of The SEACEN Centre.

Dr. Subarjo Joyosumarto
Executive Director
The SEACEN Centre

Kuala Lumpur
July 2002

EXECUTIVE SUMMARY

Various theories have been proposed on the roots of the Asian currency and financial crisis (or the "twin crises"). This collaborative study by the members of the South East Asian Central Banks (SEACEN) aims to probe the link between the twin crises on the one hand, and the liberalisation of the capital account and the domestic financial sector (or the "twin liberalisations") on the other, in light of the experiences of the SEACEN countries.[1]

The study first provides a review of the twin liberalisation programmes in the SEACEN countries, with emphasis on the sequencing and pacing of reforms in the domestic financial sector and the capital account. It then analyses the macroeconomic developments in the SEACEN countries during the so-called "boom" years (1990-95) and the pre-crisis year (1996), with a view to determining the impact of the twin liberalisations on these countries and identifying areas of weakness prior to the crisis. Finally, it examines the links between the twin liberalisations and the twin crises in light of the preceding review of the twin liberalisation programmes and macroeconomic developments in the SEACEN countries.

The findings of the study tend to support the widely held view that the twin crises did not originate as much from weak macroeconomic fundamentals as from vulnerabilities in the financial sectors of the worse hit SEACEN economies. These vulnerabilities reflect, to a significant degree, the failure of the financial system to efficiently intermediate the flow of funds, particularly foreign funds, in the domestic financial market. Weaknesses in the financial infrastructure may be traced, in turn, to the untimely or inappropriate implementation of the twin liberalisations.

In particular, the study finds that countries that did not adopt a coordinated and comprehensive approach to liberalisation were severely affected by the crisis. On the other hand, countries that followed a fairly integrated liberalisation process weathered the

1. The following SEACEN countries participated in the study: Indonesia, Malaysia, the Philippines, Singapore, South Korea, Sri Lanka, Taiwan and Thailand.

crisis relatively well. An integrated and comprehensive approach to liberalisation would have the following features: (a) proper sequencing of reforms, with the deregulation of the domestic financial sector generally occurring before the opening of the capital account; (b) proper pacing of reforms; (c) supporting infrastructure, such as an effective regulatory and supervisory framework; (d) other structural reforms, particularly the development of the domestic capital market; and (e) an appropriate mix of macroeconomic policies.

With regard to the sequencing of reforms, the study finds that in some of the worse hit SEACEN economies, capital account liberalisation was undertaken almost simultaneously with the deregulation of the domestic financial sector. Thus, the financial system was not prepared for the increased volume and complexity of financial transactions that came with the opening of the capital account. As regards specific reform measures, the study finds that, in some countries, the activities of non-bank financial institutions (NBFIs) were liberalised earlier than those of banks. This led to the rapid development of the relatively less-monitored and less-regulated NBFIs and the consequent growth of NBFI-intermediated short-term credit. Meanwhile, in the capital account, short-term borrowing was liberalised ahead of long-term borrowing, resulting in the rapid build-up of short-term external debt.

Countries that were severely affected by the crisis followed either a generally too rapid or too slow pace of liberalisation. The former approach left little time for domestic financial institutions to adapt to and brace themselves up for the more competitive, liberalised environment, and thus resulted in weak financial institutions. The latter, on the other hand, failed to give a strong signal on the thrust of liberalisation and exerted a negligible impact on market players and on the economy as a whole.

In the worse hit countries, liberalisation measures were not complemented with measures to strengthen prudential regulation and supervision. In some cases, the implementation of prudential regulations lagged behind the liberalisation of the domestic financial sector. In others, prudential regulations were imposed but were inadequate or weak. Meanwhile, the absence of a well-developed capital market in the crisis-hit countries led to the channeling of funds to unprofitable speculative activities such as investing in real estate, giving rise to asset bubbles. Another cause of the crisis in the region was the maintenance of exchange rate pegs and the use of interest rates to achieve price stability after liberalisation. The combination of stable exchange rates and high interest rate differentials encouraged the influx of foreign capital. Sterilisation led to higher interest rates, which further induced capital inflows. When these flows were reversed at the height of the speculative attacks on the currencies in the region, a currency crisis, and recession, followed.

In light of these findings, the study recommends the following policy directions, among others, with a view to ensuring the successful implementation of the twin liberalisations, and thereby preventing the occurrence of the twin crises:

- While recognising the merits of the various approaches to the twin liberalisations, the study recommends that the liberalisation of the domestic financial sector and the capital account be undertaken within a comprehensive and coordinated framework. This framework prescribes macroeconomic stability as the first precondition to liberalisation.

- Given a generally stable macroeconomy, the liberalisation of the domestic financial sector and the capital account should be properly sequenced. Considering that financial systems in most liberalising countries tend to be weak and underdeveloped (owing in large part to previously repressive financial regimes), the deregulation of the domestic financial sector prior to the liberalisation of the capital account is considered the more rational approach.

- Attention should also be paid to the sequencing of specific reforms in the domestic financial sector and the capital account. In this regard, it is suggested that long-term accounts, which are considered to be more stable, be liberalised ahead of those which are short-term.

- The pace of liberalisation should be neither too rapid nor too slow. The former approach would give little time for domestic financial institutions to adapt to and brace themselves up for the more competitive, liberalised environment, giving rise to weak financial institutions. On the other hand, the latter would fail to provide a signal to the public of the cogency of the reform effort and would likely exert a negligible impact on market players and on the economy as a whole. In other words, there should be a critical mass of reforms at specific stages of the reform process to signify the government's commitment to the reform agenda.

- The liberalisation process should be supported by measures to strengthen prudential regulation and supervision of both banks and NBFIs. In this regard, there is a need to develop national standards that conform with international best practices. This would reduce systemic risks in both global and regional financial markets.

- The crisis highlights the risks involved in the over-dependence of most of the SEACEN economies on the banking sector for intermediating funds. Thus, there is a need to develop the capital markets in the region. A well-developed capital market will help keep the financial system stable or, in a worse-case scenario, lessen the scale of a financial crisis or recession.

- Overall, liberalisation measures, particularly in the capital account, should be coordinated with macroeconomic policy design to ensure consistency. With the opening of the capital account, exchange rate policy cannot be used to achieve the goals of external stability while orienting monetary policy toward internal stability objectives. As capital account liberalisation progresses, there should be greater exchange rate flexibility to temper capital inflows that seek to exploit interest rate differentials.

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VOLUME I: MAIN REPORT
by
Ma. Cristina S. Medilo[1]

Chapter 1
THE ASIAN CURRENCY AND FINANCIAL CRISIS: DID THE TWIN LIBERALISATIONS MATTER?
The Experience of the SEACEN Countries

1. Introduction

Volumes have been written on the roots of the currency and financial crisis (or the "twin crises") that swept across the emerging Asian economies beginning July 1997. These economies, previously touted as models for the developing world, became the object of harsh criticism—erstwhile investment havens abandoned by foreign capital—as recessions started to overturn years of robust growth. While most of the affected economies have shown strong signs of recovery, unraveling the causes of the crisis continues to be a dominant goal of economic research.

1. Project Leader and country researcher for the Philippines of this Collaborative Research Project, and Bank Officer IV, Department of Economic Research (DER), Bangko Sentral ng Pilipinas (BSP). The author is deeply grateful to the following: (a) Mr. Diwa C. Guinigundo, BSP Managing Director (Research), for giving her the opportunity to work on this project and for his constant support throughout the course of this study; (b) Dr. Delano Villanueva, former Deputy Director for Research of The Southeast Asian Central Banks (SEACEN) Research and Training Centre, for his technical advice during the early stages of the project; (c) the country researchers from the other participating SEACEN member central banks and monetary authorities (Mr. Endy Dwi Tjahjono of Bank Indonesia, Mr. Yusoff Sulong of Bank Negara Malaysia, Ms. April Tan of the Monetary Authority of Singapore, Mr. Hwanseok Lee and Dr. Jong Kyu Lee of the Bank of Korea, Mr. K. M. Abeykoon of the Central Bank of Sri Lanka, Dr. Chien-Nan Wang of The Central Bank of China, Taipei and Dr. Mathinee Subhaswadikul of the Bank of Thailand) for their invaluable contributions; (d) The SEACEN Centre, for logistical support and, in particular, Ms. Kanaengnid T. Quah, Acting Assistant Director for Research, for technical and administrative assistance; (e) Dr. Ma. Cyd N. Tuaño-Amador, BSP-DER Officer-In-Charge, for helpful comments and suggestions; (f) Dr. Joseph Y. Lim, Professor, University of the Philippines School of Economics, for providing major references for the Conceptual Framework; and (g) Ms. Louiseville G. Jungco, for helping consolidate the cross-country data. The usual disclaimer applies.

Theories differ on the possible causes of the crisis. One explanation points to the persistent loss in the export competitiveness of these economies in the face of global developments, among them: (a) the entry of China, India and other low-cost producers into the international export market; (b) the devaluation of the renminbi in 1994; and (c) the steady appreciation of the dollar relative to the yen and other major currencies beginning 1995. These developments made it imperative for these countries to boost their competitiveness by devaluing their currencies, which were perceived to have been effectively pegged to the dollar.

Another view, related to the first, attributes the crisis to the longstanding current account deficits of these countries, which also called for a realignment of their exchange rates, among other policy measures. However, these countries failed to undertake the currency devaluation necessary to improve their level of competitiveness and reduce their current account deficits, as they were allegedly following an exchange rate-based inflation stabilisation plan. The markets thus took it upon themselves to correct the perceived currency overvaluation, and a currency crisis followed.

A third explanation traces the roots of the crisis to fundamental weaknesses in the domestic financial system. According to this view, strong investor confidence, along with fairly open capital accounts and relatively stable exchange rates, attracted foreign capital and facilitated foreign borrowing in the emerging Asian economies during the years of rapid growth. The inflow of foreign funds fueled the expansion of domestic credit—and with it, risky lending—as the earlier or concomitant implementation of measures to liberalise the financial system reduced the incentives for effective risk management. Meanwhile, the lending boom underpinned the expansion of the property and equities markets, giving rise to an asset bubble. These factors weakened the financial systems of the affected economies severely. When the currency crisis struck, a financial meltdown was inevitable.

The foregoing analysis suggests that the roots of the crisis may be traced ultimately to what may be considered as the untimely or inappropriate liberalisation of the capital account and the domestic financial sector, since the improper pursuit of these "twin liberalisations" are viewed as the major cause of fissures in the financial infrastructure.

There is also the view that the crisis was due mainly to the "contagion effect" since there were significant differences in the macroeconomic conditions in the affected countries. According to this view, the crisis arose as investors formed a generalised unfavourable assessment of these neighbouring economies, instead of thoroughly evaluating their underlying strengths and weaknesses.

Other explanations have also been proposed. Admittedly, no single theory suffices to explain the crisis. It is interesting to note, however, that, while one view suggests a link between the crisis, on the one hand, and capital account openness and financial sector liberalisation, on the other, there has been no effort to make a thorough review of capital account and financial sector liberalisation programmes in the affected economies in relation to the Asian crisis.

It is also worth noting that, apart from Japan, the countries that were drawn into the turmoil are members of the association of Southeast Asian Central Banks (SEACEN). However, among the affected SEACEN economies, some were severely hit by the crisis, while others were left almost unscathed, although they were also subjected to shocks at some point.

The foregoing observations beg the question of why there are marked differences in the impact of the crisis on these SEACEN economies. Varying approaches to liberalisation, as well as differences in the conduct of monetary and exchange rate policy and in the quality of bank regulation and supervision, should help explain the divergent experiences of these economies in the face of the crisis. However, no effort has yet been made to examine the whole range of experiences of the SEACEN countries with regard to capital account and financial liberalisation, in light of the currency and financial turmoil.

This collaborative project by the SEACEN member countries aims to contribute to the research effort on the Asian currency and financial crisis through the following: (a) by evaluating the liberalisation of the domestic financial sector and the capital account in these countries, noting, in particular the pacing and sequencing of liberalisation measures; (b) by analysing the impact of the twin liberalisations on the SEACEN member economies, particularly in the light of the crisis; (c) by comparing the experiences of the SEACEN member countries that were severely affected by the crisis with the experiences of other member countries that emerged relatively unscathed from the regional turmoil; and (d) by drawing up appropriate policy recommendations, particularly with regard to the implementation of the twin liberalisations.

2. Organisation of the Project Report

This Project Report is divided into two volumes. Volume I presents the Main Report, which includes the Introduction, Organisation of the Report, Conceptual Framework, Methodology, Integrative Report on the Country Experiences, Summary and Conclusions, and Policy Implications.

The Integrative Report on the Country Experiences consolidates the papers on the countries that participated in the study, namely, Indonesia, Korea, Malaysia, the Philippines, Singapore, Sri Lanka, Taiwan and Thailand.[2] It consists of three sections. The first section discusses the twin liberalisation programmes in each country. The second section analyses the macroeconomic developments in the SEACEN countries during the so-called "boom" years (1990-95) and the pre-crisis year (1996), with a view to determining the impact of the twin liberalisations on these countries and identifying areas of

2. For the purposes of this study, the SEACEN region refers to these participating countries, and thus excludes Myanmar and Nepal.

weakness prior to the crisis.[3] Finally, the third section probes the links between the twin liberalisations and the twin crises in the light of the preceding review of macroeconomic developments.

Volume II of this Project Report presents the individual country papers on the eight participating SEACEN member countries. The country paper normally consists of six sections. The first section discusses the macroeconomic conditions in the country prior to the implementation of the twin liberalisations. The second section discusses the objectives and components of the programmes liberalising the domestic financial sector and the capital account. The three succeeding sections discuss economic developments during the following periods: (a) the "boom" period (1990-95), during which the SEACEN countries may be considered to have experienced the positive effects of liberalisation, as indicated by, among other things, robust capital inflows, financial deepening and high output growth; (b) the pre-crisis period (January 1996-June 1997), when telltale signs of weaknesses in the macro economy and the domestic financial sector began to emerge; and (e) the crisis period (July 1997-December 1998), which was marked by currency depreciation, credit contraction and recession in most of the SEACEN economies. The last section of the country paper presents the findings of the country study and provides some policy recommendations.

3. Conceptual Framework

Financial and capital account liberalisation have been an integral component of structural reform programmes in developing countries in the past three decades. The main objectives of the liberalisation effort were the following: (a) to mobilise domestic savings; (b) to attract foreign capital; and (c) to enhance efficiency in the allocation of financial resources to support investment and overall economic growth.

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3. In most of the individual country papers, the pre-crisis period covers January 1996-June 1997, as discussed in the section on Methodology below. To facilitate comparison and analysis, however, the Integrative Report limits the pre-crisis period to 1996.

3.1 Financial Liberalisation and the Twin Crises

The liberalisation of the domestic financial sector aimed to rectify distortions spawned by interventionist policies which McKinnon (1973) and Shaw (1973), in their pioneering work, referred to as "financial repression". Distortions in financially repressed economies took various forms. Interest rate ceilings, which often translated into low and sometimes negative real interest rates, discouraged private financial savings. High reserve requirements increased the cost of intermediation. Directed credit restricted investment opportunities to favored sectors. Meanwhile, entry barriers to both domestic and foreign financial institutions limited the pool of financial resources even as they stifled competition. These distortions hampered the efficiency of the financial system in intermediating funds among the various sectors of the economy, depressed credit, and hindered growth. McKinnon and Shaw saw financial liberalisation as the key to reversing the process of financial repression and accelerating economic growth.

Following the new growth strategy, many developing countries implemented measures to liberalise their financial system. Interest rate deregulation became the centerpiece of the liberalisation process. This was complemented by the lowering of reserve requirements, the removal or softening of controls on credit allocation, and the lifting of entry barriers to the domestic financial sector. Indirect monetary policy instruments were also introduced.

The move toward freer financial markets yielded generally propitious results. Research on the experiences of countries that undertook financial liberalisation showed its positive impact on economic growth. Borensztein (1994), for instance, cites evidence that financial development is associated with higher and more efficient investment and, consequently, economic growth. Meanwhile, studies documented by King and Levine (1993) found a positive correlation between various measures of financial development and contemporaneous and future growth rates of gross domestic product (GDP). This suggests that financial liberalisation, by fostering financial development, can increase the long-run growth rate of the economy (Demirgüc-Kunt and Detragiache, 1998).

However, events that unfolded in the last two decades have blurred the positive perception of liberalisation as a catalyst for financial development and, hence, economic growth. Both developed and developing countries experienced a marked increase in financial fragility in the aftermath of financial liberalisation. A study by Sundararajan and Baliño (1991) showed close linkages between financial sector reform and financial crises. Caprio and Kliengebiel (1995) and Lindgren, Garcia and Saal (1996) list a considerable number of problems in banking sectors around the world, some of which erupted into full-fledged systemic crises.[4] In some cases, banking sector problems emerged shortly after the financial sector was deregulated. A study by Demirgüc-Kunt and Detragiache (1998) provides empirical evidence that financial liberalisation has costs in terms of increased financial fragility, and that liberalised financial systems increase the probability of banking crises.

How does financial liberalisation lead to financial fragility and, possibly, to a financial crisis?

The financial system channels funds from economic agents that lack investment opportunities to those that have such opportunities. However, the efficient functioning of the financial system may be hindered by asymmetric information, a situation in which one party to a financial contract has much less accurate information than the other party. Asymmetric information impedes the efficiency of financial intermediation because it gives rise to adverse selection and moral hazard. Adverse selection refers to a situation in which the parties who are most likely to produce an undesirable (adverse) outcome are the ones most likely to be selected or to be granted financing for their project

4. As cited in Demirguc-Kunt and Detragiache (1998).

(Stiglitz and Weiss, 1981). For instance, borrowers who intend to take on high-risk projects are likely to be the most eager to borrow—knowing that they are likely to default on the loan—and thus have a higher probability of being granted a loan relative to low-risk borrowers. Moral hazard, on the other hand, refers to a situation in which the agent (or insured party) has incentives to take on more risk since he knows that he will not be made liable if the project fails, whereas he will share in the payoff if it succeeds.

The lifting of interest rate ceilings in line with financial liberalisation can magnify the problem of adverse selection. In a deregulated environment, banks can charge high interest rates to cover added risk. This creates an incentive for them to lend to high-risk borrowers with a view to earning higher returns.[5] The liberal credit policy may eventually give rise to an expanding portfolio of risky loans, which leads to banking sector fragility. While hedging through portfolio diversification may reduce the risk of bank insolvency and even shield some banks from systemic problems, portfolios of risky loans inevitably render the banking sector vulnerable to economy-wide adverse shocks, such as a recession (Demirgüc-Kunt and Detragiache, 1998).

The problem of increased risk-taking due to pervasive adverse selection in a liberalised financial environment can be compounded by arrangements, which increase the incentive for banks to exploit the existence of moral hazard (Mishkin, 1996). An example of such an arrangement is the provision of deposit insurance, both explicit and implicit, which prevents banks from taking full responsibility for their lending decisions. Governments often provide an explicit insurance scheme to protect depositors and prevent bank runs. Even in the absence of explicit deposit insurance, central banks, in their role as lenders of last resort,

5. Although, as noted by Stiglitz and Weiss (1981), extremely high interest rates may reduce the supply of loans, as lenders, being unable to discriminate among borrowers and identify those with riskier investment projects, may curtail their lending. Thus, there is a limit to which interest rates can be raised to induce an expansion in lending which, in most cases, benefits high-rick borrowers.

are known to provide support for the banking system in case of bank runs.[6] In critical situations, the monetary authorities may even take over troubled institutions and guarantee that depositors will receive their money in full to avert a banking crisis. Where a large bank is involved, bank regulators are even more wary of allowing the institution to fail because such failure can lead to a major systemic financial disruption. This form of protection accorded to big banks is commonly known as the "too-big-to-fail" policy. All these forms of government safety nets expand the opportunities for risk-taking, and, in the process, increase the vulnerability of the financial system.

In a liberalised financial environment, resource constraints may also keep banks from limiting their exposure to risk, even if they are inclined to adopt a more conservative credit policy. For instance, there are immense costs related to the training of bank personnel in order to equip them with the skills necessary to evaluate the risks associated with investment instruments that emerge in the advent of financial deregulation (Demirgüc-Kunt and Detragiache, 1998). Liberalisation may also weaken the supervisory and regulatory system since regulators in formerly repressed financial systems may not be prepared to monitor and assess the risks associated with bank activities that are rendered increasingly complex by the evolving financial environment. Even continuous training (which would be very costly) may not keep the regulators at pace with the rapid development of financial instruments in a deregulated financial system.

Apart from increasing the general level of risk in the banking system, excessive lending can fuel asset inflation (Krugman, 1998). In undeveloped capital markets, borrowed funds may be channeled to investments in asset markets for lack of other investment instruments. This leads to the rapid growth of, and consequent acceleration of inflation in these markets, giving rise to an "asset bubble". The overpricing of assets can be sustained in part by a circular process, in which the rise in risky lending

6. See Dooley (1997) and Johnston and Canales-Kriljenko (1999).

drives up the prices of risky assets, which are used as loan collateral, and thus provide a momentary, superficial boost to financial institutions' balance sheets. When the bubble bursts, asset prices plunge, leading to insolvency. Imperiled financial institutions are eventually forced to cease operations, which leads to the contraction of credit, further asset deflation and a deeper financial crisis.

Thus, the liberalisation of financial markets, coupled with government safety nets limiting the liability of banks in case of bank failure, creates incentives for increased risk-taking and leads to excessive credit expansion. The problem is exacerbated by the weak absorptive capacity of undeveloped capital markets, which causes funds to flow into asset markets, creating asset bubbles. These render the banking sector vulnerable and could eventually lead to a financial crisis.

3.2 Capital Account Liberalisation and the Twin Crises

In most countries, the deregulation of the domestic financial sector was complemented by the reduction or elimination of controls on international capital movements. Among other goals, the liberalisation of the capital account aimed to achieve the following: (a) to increase the pool of investible funds; (b) to ease the access of domestic residents to foreign capital markets, as well as the access of foreign investors to the domestic capital market; (c) to expand the opportunities for portfolio diversification and thereby provide investors with the potential to achieve higher risk-adjusted rates of return; and (d) to facilitate the efficient global allocation of savings and help channel resources into their most pròductive uses, thus increasing economic growth and welfare (Fischer, 1998).

Following the liberalisation episode, many developing countries experienced a surge in capital inflows.[7] Capital inflows are

7. Calvo et al. (1993) cite other factors influencing capital inflows. These factors are categorises as external (e.g., a decline in international interest rates and a rest-of-the-world recession) and internal (e.g., successful price stabilisation programmes and policies that credibly increase the rate of return on domestic investment projects, such as tax credits and debt-equity swaps).

defined as the increase in the net international indebtedness of the private and public sectors during a given period of time, and are measured by the surplus in the capital account of the balance of payments (Calvo et al., 1993).[8] Therefore, except for errors and omissions, the capital account surplus equals the excess of expenditure over income (that is, the current account deficit) plus the change in official holdings of international reserves, which is often referred to as the overall balance of payments. Surges in capital inflows can thus be identified with either a widened current account deficit or a build-up in foreign exchange reserves, or both, depending on the central bank's response to such inflows.

Under a flexible exchange rate regime, the central bank does not intervene in the foreign exchange market. Thus, capital inflows do not lead to an increase in central bank holdings of official reserves. Instead, the expansion in net exports of assets in the capital account is used to finance an increase in net imports of goods and services. In other words, the capital account surplus is used to support a widening current account deficit. This occurs as the real exchange rate appreciation occasioned by the inflows lowers the recipient country's international price competitiveness, which weakens exports. Another mechanism by which capital inflows can worsen the current account deficit is if the inflows are channeled to domestic credit, which in turn, is used to finance an import-led consumption boom.

In a fixed exchange rate system, on the other hand, the central bank intervenes in the currency market and absorbs the capital inflows. Hence, the capital account surplus is matched by a corresponding increase in official reserves. In most cases, intervention is accompanied by either full or partial sterilisation. However, sterilisation itself can exacerbate the inflows problem, as the consequent higher domes-

8. Strictly speaking, this definition refers to net capital inflows since it is the difference between capital inflows and outflows that determines the capital account balance. The following discussion on capital inflows draws heavily from the work of Calvo et al. (1993).

tic interest rates may attract more offsetting capital inflows (Leung, 1996).[9]

Central banks normally respond to capital inflows through a combination of the aforementioned two polar strategies, that is, through partial intervention. Thus, a capital account surplus usually translates into both a worsening current account deficit and an increase in the central bank's foreign exchange reserves.

Since capital inflows can provide a temporary solution to current account imbalances, they can undermine the government's resolve to address the causes of structural weaknesses, such as the loss of export competitiveness (Gochoco-Bautista et al., 1998) even as they contribute to these weaknesses (through their impact on the real exchange rate, for instance). Moreover, as pointed out by McKinnon (1994), increased government access to foreign borrowing due to the easing or lifting of capital controls may slow adjustment. Thus, capital inflows can help perpetuate serious imbalances in the external sector, which could undermine overall economic stability.

Apart from weakening the external sector, excessive capital inflows can also impact negatively on the financial system, which intermediates a part of these flows. While, in principle, domestic intermediation is not strictly necessary, domestic banks do play a key role in intermediating capital flows.[10] This role is enhanced under a liberalised financial system, which allows banks to offer competitive interest rates and encourages them to increase lending on account of low reserve requirements. An example of bank intermediation of capital inflows is the situation where the monetary authority sterilises all or part of such inflows by issuing Treasury bills. Banks can purchase these T-bills and sell them in the secondary market, thus increasing liquidity.

9. Moreover, the higher interest rates occasioned by such intervention involves quasi-fiscal costs (Leung, 1996).

10. As noted by Calvo et al. (1993), domestic intermediation may not be necessary because a domestic consumer or investor could borrow in international markets, and use the proceeds to purchase the desired goods and services. Also, foreign direct investment rarely relies on domestic intermediation.

Banks may also play a central role in intermediating capital inflows even when monetary authorities do not resort to sterilisation. As noted by Johnston and Canales-Kriljenko (1999), foreign lenders may prefer to channel their loans through the banking sector, which is perceived to be less risky, in view of the difficulties of assessing the risk situation of individual corporations given the rather limited information on their financial position and prospects. Moreover, short-term investors may "park" their funds in a local bank while waiting for better investment opportunities. Banks can, in turn, invest those funds in either the domestic or foreign markets. However, since domestic banks cannot compete in foreign markets, they are likely to lend the funds in the domestic market.

A major concern about the intermediation of international capital flows through the domestic banking system is the existence of unpaid-for explicit or implicit deposit insurance on bank deposits which, as earlier mentioned, induces banks to increase their risk exposure.[11] For instance, banks may not keep a close watch over the maturity structure of their loans and deposits. Since deposits normally have shorter maturities than loans, a lending boom may create or exacerbate a maturity mismatch between bank assets and liabilities. Also, increased foreign borrowing on account of stable exchange rates and high interest rate differentials, and the subsequent rise in local-currency lending to exploit said differentials, would result in a currency mismatch. Under these conditions, a sudden reversal in capital flows will likely result in a financial crisis.

11. As pointed out by Johnston and Canales-Kriljenko (1999), for instance, it is precisely the perception that banks are not simply supervised, but backed more directly (through the provision of an implicit government guarantee), by the authorities that encourages foreign lenders to channel their funds through the banking system. Another concern raised by Calvo et al. (1993) about the channeling of capital inflows through the banking system is that interest rates reflect "country risk", which implies domestic interest rates that are higher than international ones. If the funds are used to buy Treasury bills, the proceeds of which are invested in international reserves, such an operation increases the deficit of the public sector.

Thus, excessive capital inflows concomitant with the opening of the capital account can cause serious economic imbalances in the recipient country.[12] The problem is compounded if the inflows are short-term in nature since such inflows increase the probability of an abrupt and sudden reversal due to shifts in investor sentiment. As Fischer (1998) notes, investor sentiment, although usually rational, may reflect contagion effects.

3.3 Preconditions to Liberalisation

Considering the potentially destabilising impact of financial and capital account liberalisation on the economy, how can these reforms be undertaken to mitigate their negative effects? In other words, what are the preconditions to successful liberalisation?

There is general concurrence in economic research and policy circles that macroeconomic stability is the first precondition to liberalisation.[13] Fischer (1993) describes the macroeconomic framework as stable when inflation is low and predictable, real interest rates are appropriate, fiscal policy is stable and sustainable, the real exchange rate is competitive and predictable, and the balance-of-payments situation is perceived as viable.

Undertaking liberalisation in an unstable macroeconomic environment can lead to greater economic instability. For instance, liberalising the financial system when inflation is high or rising can strain the corporate sector's profitability and cause serious financial distress (Cho, 1994).[14] On the other hand, allowing easier access to interna-

12. Apart from causing instability in the recipient country, the free movement of international capital can also limit the effectiveness of government policies (Hanson, 1994). For instance, an open capital account constraint governments' ability to tax capital or financial assets, to the extent that economic agents can easily switch their portfolios internationally to escape taxes.

13. See, for instance, Fischer (1998); Hanson (1994); McKinnon (1988); and Villanueva and Mirakhor (1990).

14. As cited in Khatkhate (1998).

tional capital markets during inflationary episodes can increase the variability of the economy substantially (Hanson, 1994). Under conditions of high inflation, the domestic currency money base falls as a percentage of GDP. Hence, nominal and real shocks, as well as shifts in expectations, exert a proportionately greater influence on domestic financial variables. Capital account liberalisation, in facilitating and rendering less costly the shift to foreign exchange-denominated assets, can magnify the variability in the economy: the money base would decline faster and shifts in response to a given shock would become more pronounced.

Since real exchange and interest rates are important elements of macroeconomic stability, it is necessary to coordinate liberalisation with macroeconomic policy design. As noted by Johnston et al. (1997), this coordinated approach to liberalisation is critical because increased capital mobility weakens the effectiveness of monetary and exchange rate policy in achieving their macroeconomic targets. For instance, if monetary policy is used to constrain inflation, the exchange rate cannot be used as an expenditure-switching instrument to achieve the objectives for the current account. On the other hand, if the exchange rate is used to achieve the objectives for the current account, or if the exchange rate is fixed, monetary policy will be left with little autonomy to achieve domestic stabilisation objectives or to manage the consequences of short-term capital inflows.

Given a stable macro economy, how should governments proceed with domestic and international financial liberalisation? That is, what is the proper approach to the pacing and sequencing of the liberalisation of the domestic financial sector and the capital account?

One view holds that financial liberalisation should precede capital account liberalisation. Among the reasons cited for this approach is that, since financial markets adjust more rapidly than goods markets, a premature opening of the economy to international financial markets would cause large swings in exchange rates and/or interest rates, particularly in small and relatively volatile economies (Borensztein, 1994). These shocks can, in turn, undermine economic stability.

Another reason for sequencing the liberalisation of domestic and international financial markets is that, if capital controls are lifted prior to financial deregulation, domestic financial institutions, particularly banks, will not be prepared to meet the competitive challenge from foreign financial institutions that either commence or intensify their operations in the domestic financial market as a result of capital account liberalisation, since they (the domestic players) remain subject to regulations that no longer govern their foreign counterparts in the domestic market (Hanson, 1994). Moreover, the greater volume of intermediation and increased competition resulting from capital flows may intensify the pressure on protected domestic financial institutions and bring the weaknesses of such institutions to the fore. Evidently, weak financial institutions will be incapable of efficiently intermediating large flows of funds to which they gain access as a result of capital account liberalisation (Fischer, 1998). They are also more likely to be adversely affected by movements in asset prices that result from international capital flows, and by capital flow reversals.

Johnston et al. (1997) adopt a less categorical stance on the issue of sequencing financial and capital account liberalisation.[15] However, they note that efficiency in the use of capital flows and, thus, the extent to which such flows contribute to sustained improvements in economic performance, depends on the stage of development and efficiency of the domestic financial system. The growth and efficiency of the financial system, in turn, depends on the existence of a solid regulatory and supervisory framework, and the elimination of various sources of market failure that arise from financial controls. Johnston et al. also point out that the successful and sustained opening of the capital account

15. For instance, they suggest that, where financial systems are weak, the institutional weakness can be addressed in advance of, or *concurrently with* (emphasis supplied), the liberalisation of the capital account.

requires the existence of a minimum set of instruments, institutions and markets for the effective management of monetary and exchange rate policy with an open capital account. This is so because capital mobility alters the effectiveness of different monetary policy instruments in achieving the objectives of monetary policy. The foregoing considerations suggest that Johnston et al. recognise the merit of deregulating the financial sector prior to liberalising the capital account.

In a more recent paper, Johnston and Canales-Kriljenko (1999) discuss three basic approaches to liberalising the domestic financial sector and the capital account. The first approach, which represents the conventional academic view, highlights the importance of achieving macroeconomic stability and developing domestic financial institutions, markets and instruments as preconditions for the liberalisation of the capital account. This framework holds that capital account liberalisation should be implemented late in the overall programme of economic reform. Another approach, which is based largely on political economy considerations, stresses the constraints to reforms, including the limited capacity of countries to undertake reform without external pressure. This framework thus recommends early capital account liberalisation, which is perceived as a catalyst for broader economic reforms, enabling governments to surmount vested interests that stand in the way of necessary reforms.

Between these two extreme approaches is the framework that considers capital account liberalisation as part of a concurrent, integrated and comprehensive approach to overall macroeconomic and structural reform. Under this approach, the coordination of specific reforms in the domestic and external sectors assumes primary importance. Thus, capital account liberalisation should be paced with financial sector reforms. Big-bang approaches to capital account liberalisation are considered more appropriate where domestic financial markets are developed.

While Johnston and Canales-Kriljenko do not prescribe any particular approach for undertaking the twin liberalisations, they nonetheless stress that any liberalisation strategy should be supported by an appropriate regulatory and supervisory infrastructure. They thus highlight the importance of having a strong and well-developed financial system prior to the opening of the capital account. Since such a system can thrive only under a liberalised financial environment, there could be an implicit preference in this approach to the deregulation of the domestic financial sector prior to the liberalisation of external financial transactions.

The foregoing considerations suggest that, while there are various approaches to liberalisation, reforms in the domestic financial sector and the capital account should be undertaken within a comprehensive and coordinated framework. Moreover, considering that financial systems in most liberalising countries tend to be weak and underdeveloped (owing in large part to previously repressive financial regimes), there appears to be a strong basis for developing—by first liberalising—the domestic financial sector before opening the capital account.

4. Methodology

The discussion that follows presents the framework of analysis used in preparing the individual country papers. Since this study aims to examine the impact of the twin liberalisations on the SEACEN economies—more precisely, to establish the possible link between the twin liberalisations and the twin crises—each country paper provides a thorough discussion of the liberalisation programme and analyses macroeconomic and financial developments in the country before and after liberalisation. The discussion on the twin liberalisations pays particular attention to the pacing and sequencing of liberalisation measures vis-à-vis the preconditions for successful liberalisation, as discussed in the Conceptual Framework. Meanwhile, the analysis of macroeconomic developments relates conditions in the various sectors of the economy, based on selected economic indicators, to the liberalisation policies that may have helped bring them about. The following indicators are used in the analysis of macroeconomic developments in light of their theoretical significance, as explained in studies on banking and balance-of-payments problems.[16]

a. *Real sector*—GDP growth; saving rate; inflation rate; stock market capitalisation; and stock price index;

b. *Monetary sector*—short-term interest rate; money supply growth; ratio of money supply to GDP; ratio of money supply to gross international reserves (GIR); growth of domestic credit; ratio of domestic credit to GDP; ratio of loans to the real estate sector, and of loans to the manufacturing sector, to total loans of the banking sector; non-performing loan ratio; capital-adequacy ratio; ratio of loan-loss provisions to total loans; growth of assets of the financial system; growth of assets of the banking system; ratio of bank assets to total assets of the financial system; and growth of the number of financial institutions;

c. *Fiscal sector*—Fiscal balance (as a percentage of GDP);

d. *External sector*—overall BOP balance (as a percentage of GDP); current account balance (as a percentage of GDP); capital account balance (as a percentage of GDP); growth of net foreign direct investments; growth of net portfolio investments; growth of total foreign exchange liabilities; ratio of short-term foreign exchange liabilities to total foreign exchange liabilities; debt-service burden; GIR; ratio of short-term foreign exchange liabilities to GIR; export growth; import growth; real effective exchange rate; exchange rate depreciation/appreciation; and interest-rate differential.

As noted in section 2 (Organisation of the Project Report), the analysis of economic developments based on the foregoing indicators is divided into three periods, as follows: (a) the "boom"

16. Kaminsky and Reinhart (1996), Kaminsky, Lizondo and Reinhart (1997) and Kaminsky (1998) are major references.

period (1990-95); (b) the pre-crisis period (January 1996-June 1997); and (c) the crisis period (July 1997-December 1998). Economic developments during the period 1990-95, which are considered to be the "boom" years for most of the SEACEN economies, provide an indication of the positive impact of the twin liberalisations on these economies. During these years, the surge in capital inflows—which has been attributed largely to the liberalisation of the domestic financial sector and the capital account—provided the impetus for growth in the SEACEN economies.

The choice of 1995 as the last year of the boom period is based on the basic thesis of the literature on early warning signals of currency and banking crises that problems in various sectors of the economy that eventually give rise to such crises take root several months before the crises erupt.[17] On the other hand, 1996 was chosen to mark the beginning of the pre-crisis period considering that it begins an interval of about 18 months (1996-June 1997) prior to the outbreak of the crisis in July 1997.[18] During this period, signals of impending crises (such as lower output growth, higher inflation and rising non-performing loan ratios) manifest. Finally, the period July 1997- December 1998 is used to delineate the crisis period.

The last section of the country paper presents the major findings of the country analysis and explores policy issues in the following areas:

1. Criteria that should be met for successful liberalisation, particularly:
    a. Pacing and sequencing of the liberalisation of the capital account and the domestic financial sector; and
    b. Guidelines on how to control the pace of liberalisation;
2. Supervisory and regulatory framework;
3. Exchange rate management; and
4. Other related issues.

17. See Kaminsky, Lizondo and Reinhart (1997) and Kaminsky (1998).

18. In Kaminsky and Reinhart (1996), the lead-time between the first signals of an impending currency crisis and the outbreak of the crisis is one month to 24 months. For banking crises, the lead-time is one month to 12 months.

5. Integrative Reports on the Country Experiences

This Integrative Report consolidates the country papers on Indonesia, Malaysia, the Philippines, Singapore, Korea, Sri Lanka, Taiwan and Thailand in Part II of the Project Report.[19] It consists of three sections. The first section begins with an overview of the twin liberalisation programmes in each country and then discusses the components of these programmes by category.

The second section comprises three sub-sections, as follows: the first provides a brief review of the macroeconomic developments in the SEACEN region during the so-called boom years (1990-95), or the period during which the SEACEN economies generally experienced robust growth; the second sub-section analyses the macroeconomic developments in each of the SEACEN countries in 1996, the pre-crisis year, with a view to determining areas of weakness in these economies, which could have led to the crisis in 1997; and the third sub-section compares the macroeconomic developments in the SEACEN countries prior to the crisis.[20]

Finally, the third section probes the links between the twin liberalisations and the twin crises in light of the preceding review of macroeconomic and financial developments.

5.1 The Twin Liberalisations[21]

The process of financial liberalisation in the SEACEN countries spanned almost three decades. While some countries started to free up their financial sectors in the early 1970s, others began only in the 1980s, with major financial reforms being implemented in

19. For the purposes of this study, the SEACEN region refers to these participating countries, and thus excludes Myanmar and Nepal.
20. In most of the individual country papers, the pre-crisis period covers January 1996-June 1997, as discussed in the section on Methodology above. To facilitate comparison and analysis, however, the Integrative Report limits the pre-crisis period to 1996.
21. This review of the twin liberalisation programmes in the SEACEN countries is constrained by the unavailability of data for some countries.

the latter half of the 1980s and early 1990s. Most of the countries began with the deregulation of the domestic financial sector. The liberalisation of capital movements generally came later, or, in some cases, was undertaken concurrently with reforms in the domestic financial sector. The following discussion covers the period from the start of the liberalisation programme until 1996, or prior to the onset of the regional crisis.

5.1.1 Overview of the twin liberalisation programmes in the SEACEN countries

The economic reforms in **Indonesia** in the early 1980s focused on reorienting the economy to reduce its dependence on the oil sector and on raising funds to finance economic development. Toward this end, the government adopted two strategies, namely, (a) encouraging the creation of competitive non-oil, export-oriented industrial base, and (b) expanding the role of the private sector. These strategies necessitated the reform of the domestic financial sector, which began in 1983. A year earlier, measures to liberalise the capital account had begun. However, the liberalisation process lasted until the mid-1990s.

Malaysia also started to pursue financial liberalisation as early as the 1970s. However, adverse developments in the real economy necessitated the suspension, at times reversal, of financial reform measures. Thus, while initial reforms were put in place as early as 1971, the liberalisation process spanned over two decades. Full deregulation of the domestic financial sector was achieved only in the early 1990s. Meanwhile, efforts to liberalise the capital account were stalled when controls were imposed at the height of the crisis in September 1997.

In the **Philippines,** the process of financial liberalisation began in 1980. The first batch of reforms, which consisted primarily of interest rate deregulation and the introduction of universal banking, was completed in 1983. However, the liberalisation process was stalled in light of adverse macroeconomic conditions in the mid-1980s. Financial reforms were resumed only in the late 1980s and early 1990s.

These reforms focused on strengthening the banking system and improving the regulatory and supervisory framework. Despite the reforms in the domestic financial sector, however, continuing weaknesses in the export sector and sluggish investment growth hindered the attainment of sustainable economic growth. Liberalisation was seen as an important step in eliminating any perceived anti-export bias and the regulatory constraints that hindered the growth of foreign investments. Hence, in 1992, reforms in the current account were initiated. A year later, wide-ranging measures to liberalise the capital account were implemented.

Singapore was the first among the SEACEN economies to open up its economy. Its small domestic market and meager natural resources had necessitated the adoption of an outward-oriented economic development strategy from the outset. An integral part of this strategy was the policy of attracting foreign investments and the development of the financial sector as a major growth industry not only for the Asian region but also beyond. Thus, as early as 1975, market forces were allowed to operate fully in the Singaporean financial sector. By 1978, foreign exchange controls had been abolished completely and residents were free to borrow and lend in all currencies.

In **Korea**, pervasive government intervention in the generation and allocation of financial resources contributed to the expansion of the economy, particularly the industrial sector, in the 1960s and 1970s. However, as the economy grew larger and more complex in the 1980s, tight government control led to inefficiencies in the financial sector. Thus, in the early 1980s, the government shifted its policy thrust toward liberalisation and deregulation. Beginning 1980, financial reforms were introduced. However, in light of the perceived incapability of market players to readily adapt to a liberalised environment, Korea followed a very cautious approach to liberalisation. While some reforms in the domestic financial sector were put in place as early as 1981, the liberalisation process spanned almost two decades, as measures were implemented very slowly and as some forms of control were re-instituted in response to unfavourable economic conditions. Financial reforms in Korea included to a large extent the broadening of managerial autonomy in view of the previous regime of tight government control on financial institutions.

Economic reforms began in post-independence **Sri Lanka** in 1977 as the government shifted from an inward- to an outward-looking growth strategy. The reforms aimed to remove controls in foreign trade as well as in the domestic financial sector, and thus enhance efficiency in resource allocation, in line with the increasing integration of the Sri Lankan economy with the world economy. There was also an intention to make Sri Lanka a regional financial centre.

Taiwan began liberalising its financial sector in the mid-1970s. After the promulgation of the *Regulation Governing the Dealers of Short-term Negotiable Instruments*, three bills finance companies were subsequently established. This helped to develop the money market and led to the liberalisation of money market interest rates. In July 1978, the strict foreign exchange clearing system was replaced by the foreign currency deposit system. In 1979, an embryonic foreign exchange market was established, following the revision of the *Statute for Foreign Exchange Regulation*. Subsequently, the foreign exchange (FX) deposit system, FX reporting system, and a more flexible exchange rate regime were established.

Thailand was the last to implement the twin liberalisations. It launched its comprehensive financial liberalisation programme in 1990, although interest rate deregulation started in 1989. The policy shift sought to keep the domestic financial sector at pace with the rapid growth of the Thai economy and the globalisation of financial markets, as well as to rectify problems and constraints in the financial system, such as high industrial concentration and shallow money and capital markets. The liberalisation process was implemented in stages under the three phases of the Financial System Development Plan (FSDP), which was programmed to run from 1990 to 1998. The first phase of the Plan (1990-1992) encompassed four major areas: financial system deregulation; development of the capital market and financial instruments and facilities; improvement of the supervision and examination of financial institutions; and development of the payments system. The second phase (1993-1995) aimed to mobilise domestic savings and to develop Thailand into a regional financial centre. During this stage, financial reform measures were introduced parallel to reforms in other areas, such as the fiscal and industrial sectors. The third phase (1996-1998) had four main objectives, namely: to support the economy's growth potential and ensure the stability of the economic and financial system; to broaden, deepen and strengthen the financial system; to enhance the efficiency of supervision and examination; and to develop the financial infrastructure, including information technology and human resource development.

The liberalisation programmes of the SEACEN countries are discussed in some detail below.

5.1.2 Liberalisation of the domestic financial sector

Measures to liberalise the domestic financial sector in the SEACEN countries covered interest rate deregulation, easing of controls on credit allocation/portfolio management, broadening managerial autonomy, easing/elimination of entry-exit barriers, liberalisation of ownership structure, and expanding the scope of business activities. In some cases, the development of the domestic financial sector into a regional financial centre was a major objective of the liberalisation programme. Moreover, indirect monetary policy instruments were introduced to replace direct credit control. The following discussion of the components of the financial deregulation programme in the SEACEN countries focuses on the major liberalisation measures.

Interest rate deregulation

Indonesia deregulated interest rates on almost all types of instruments in 1983. The abolition of interest-rate-subsidy-liquidity credits in 1990 further enhanced the market determination of interest rates.

Malaysia started liberalising interest rates in 1971. However, shifts in liberalisation policy (e.g., the re-imposition of controls in response to adverse macroeconomic conditions) stretched the interest rate deregulation process in Malaysia to over two decades (from 1971 to 1991).[22]

In the case of the **Philippines**, interest rate deregulation was completed within four years after the first reform measures in 1980.

Singapore was the first to deregulate interest rates when it abolished the bank cartel on fixed interest rates in 1975.

Korea began lifting interest rate controls in 1981 and continued to implement a series of measures until full deregulation was achieved in 1988. However, the resulting spike in interest rates prompted the re-institution of de facto controls the same year. This necessitated another round of interest deregulation measures. A four-phase interest rate deregulation plan was thus implemented beginning 1991, which lasted until the onset of the Asian crisis in 1997.

Sri Lanka also began to deregulate interest rates in the late 1970s. However, full interest rate deregulation was achieved only in 1988.

Taiwan began the liberalisation of money market interest rates in the second half of the 1970s. This led to the deregulation of bank interest rates in the 1980s. Interest rate liberalisation followed a continuous step-by-step process wherein bills finance companies played a useful role. With the enactment of the *Revised Banking Law*, the process of interest rate deregulation was completed in 1989.

22. As deposit rates started to decline in 1982, lending rates were found to be sticky downward with a long lag. This prompted Bank Negara Malaysia (BNM) to introduce the base-lending rate (BLR) in 1983. Controls on deposit rates were also re-instituted in 1985. The BLR was freed from the administrative control of BNM in 1991.

Thailand was the last to deregulate interest rates in 1989. However, the process was completed within a relatively short period of five years.

The following table provides a bird's-eye view of the measures undertaken by each of the SEACEN countries in the area of interest rate deregulation. Single dash-lines denote minor liberalisation measures; double dash-lines, major liberalisation measures; and cross-marks, policy reversals or backtracking. It is interesting to note the protracted interest deregulation process in Malaysia and Korea, where some policy reversals occurred. This is in contrast to the "big-bang" approach of Indonesia where interest rate deregulation was completed essentially within one year.[23] In the Philippines and Thailand, interest rate deregulation was also implemented within a relatively short period of time.

Table 1.1
Interest Rate Deregulation
Chronology of Measures Implemented by the SEACEN Countries

Year	1971	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96
Indon													===							---						
Kor											---	---		---		---		==x			===	===	===	===	===	===
Malay	---		xxx					===					xxx		xxx				===		===				---	
Phils										===	---	===	===													
Sing					===																					
Sri L.							===			===								===								
Taiw					===	---	---	---		===					---	---			===							
Thai																			===	===	===	===	---	---		

--- minor measures; === major measures; xxx policy reversal or backtracking
n.a. not applicable or no data available

Liberalisation of portfolio management/credit allocation

Indonesia eased credit controls by implementing a drastic cut in the minimum liquidity requirement for banks from 15 percent to two percent in 1988. This was followed by further measures in the late 1980s.

23. The abolition of interest-rate-subsidy-liquidity credits in 1990, which further enhanced the market determination of interest rates, may be considered as a minor deregulation measure.

Malaysia standardised the statutory reserve requirement (SRR) for all financial institutions in 1989. Primary liquidity ratios for finance companies and commercial banks were also abolished in 1989 and 1990. In 1994, Bank Negara Malaysia (BNM) introduced the "Two-Tier Regulatory System" (TTRS) whereby well-managed commercial banks were classified as Tier I institutions and allowed to operate under a more liberal regulatory environment. Granting stronger banks greater autonomy in the conduct of their operations was seen as an effective means of accelerating the process of liberalisation—by deregulating in stages instead of waiting for all banks to meet all criteria before deregulating—while providing weaker banks with an incentive to strengthen their position. This new approach was extended to merchant banks and finance companies in 1996.[24]

The **Philippines** undertook the first step in liberalising portfolio management in 1985 with the rationalisation of the Central Bank of the Philippines' (CBP) rediscount facility.[25] However, major measures in this area were implemented only beginning 1989. This consisted of a series of reductions in the reserve requirement, which lasted until 1996.

Taiwan's rediscount facility became operational in 1972, and was expanded during the second half of the 1980s and the early 1990s. In 1985, the Central Bank of China, Taipei (CBC) issued the first negotiable certificates of deposit (NCD). Another major liberalisation measure involved the revision of the *Rediscount and Temporary Accommodation Regulation* in 1988. In 1989, however, there was some backtracking as selective credit controls were imposed due to excessive credit creation and excessively high real estate prices. Nonetheless, the overall thrust of liberalisation continued with the deregulation of loans for first-time homebuyers and overseas investment in 1990, and of loans

24. The TTRS was abolished in March 1999.

25. Rediscounting is a special financing facility of the Central Bank of the Philippines (CBP) wherein it lends to financial institutions, which use the promissory notes and other loan papers of their borrowers as collateral. The CBP was replaced by Bangko Sentral ng Pilipinas (BSP) in 1993.

for manufacturing outlays in 1993. In 1996, selective credit controls that were imposed in 1989 were lifted.

Thailand started to ease controls on credit allocation in 1990 with the reduction of the branch-opening requirement for banks to hold government bonds as a minimum proportion of total deposits. Between 1991 and 1996, the method for calculating the reserve requirement (liquid asset requirement) was continually revised to expand the list of reserve-eligible instruments and reduce the frequency of reporting compliance.

Table 1.2
Liberalisation of Portfolio Management/Credit Allocation
Chronology of Measures Implemented by the SEACEN Countries

Year	1976	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96
Indon													===	---	---						
Kor			n.a.																		
Malay														===	===		---		===		===
Phils										---				===	===			---	===	===	===
Sing			n.a.						•												
Sri L.			---	---	---		===	===													
Taiw	—			---	===		---	===		===		---	===	xxx	===	---	---	===		---	===
Thai															---	---	---	---	---	---	---

--- minor measures; === major measures; xxx policy reversal or backtracking
n.a. not applicable or no data available

Liberalisation of the entry and exit of financial institutions

Indonesia liberalised the entry and exit of institutions in 1988 by easing the requirements for the opening of new banks and new bank branches. At the same time, foreign banks were permitted to open joint venture banks with maximum paid-in capital of 85 percent. The process of opening finance companies was also simplified. Other reforms in this area were implemented in 1992.

In the **Philippines**, restrictions on the entry and exit of new banks in priority rural areas were lifted in 1989. This was followed by the lifting of the moratorium on the entry of new domestic banks in 1990. Various incentives for branching were issued in subsequent years. In 1994, the entry and scope of operations of foreign banks was liberalised.

Korea started to liberalise the rules on the entry and exit of institutions in 1982 with the relaxation of the requirements for establishing non-bank financial institutions (NBFIs). Further reforms between 1987 and 1996 facilitated the establishment of new banks and securities companies and the conversion of investment and finance companies into merchant banks. In 1997, the entry requirements for investment advisory businesses were relaxed. These reforms were closely linked to the measures aimed at enlarging the scope of operations of financial institutions.

In **Taiwan**, the main regulatory guidelines for the establishment of branches and representative offices of domestic banks and foreign banks were issued in 1983 and 1984, respectively. Meanwhile, guidelines for putting up domestic securities firms and commercial banks were issued in 1988 and 1990, respectively. In subsequent years, the establishment of new domestic and foreign insurance companies was allowed after the major revision of the *Insurance Act* in 1992. In 1994, new rules for the establishment of domestic branches of foreign banks were issued.

Thailand's programme to liberalise the entry and exit of institutions was closely linked with its goal of developing Bangkok into a regional financial centre. In 1993, the Bangkok International Banking Facilities (BIBFs) were established to provide banking services to non-residents and residents in local and foreign currencies. In 1994, finance companies were allowed to open offices abroad. In 1995, guidelines for new bank applications were issued. This was followed by the issuance of guidelines on the opening of domestic branches of foreign banks in 1996.

The following table shows that, as with other areas of financial reform, the liberalisation of the entry and exit of financial institutions in Korea involved a long-drawn process. By contrast, Thailand's liberalisation programme progressed quite rapidly.

Table 1.3
Liberalisation of the Entry and Exit of Financial Institutions
Chronology of Measures Implemented by the SEACEN Countries

Year	1978	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96
Indon											===				===				
Kor					===					---	---	===	---	===	---		===	---	===
Malay		xxx																	
Phils												---	===	===	---	---	===		
Sing	n.a.																		
Sri L.	n.a.																		
Taiw						===	===			---	===		===		===	---	===	---	
Thai																===	===	===	===

--- minor measures; === major measures; xxx policy reversal or backtracking
n.a. not applicable or no data available

<u>Liberalisation of the scope of operations of financial institutions</u>

In **Malaysia**, finance companies were allowed to issue non-negotiable certificates of deposit in 1990 and to borrow from the inter-bank market in 1991.

The **Philippines** introduced universal banking in 1980, thereby widening the scope of operations of banks. In 1992, the enactment of the *Rural Bank Act* allowed rural banks to engage in a broad range of financial activities.

Korea also started expanding the activities of financial institutions in 1980. The implementation of measures to broaden the scope of operations of banks and investment and finance companies continued until 1996. Among other measures, the BOK allowed securities companies to engage in the sale of bonds under repurchase agreements; investment companies to undertake the factoring and commercial paper business; and commercial banks to perform trust operations.

Taiwan expanded the scope of activities open to financial institutions starting 1987 when domestic banks were allowed to establish trust departments. Foreign banks were granted the same prerogative in 1990. The revision of the *Banking Act* in 1989 gave the central bank more flexibility in approving new bank operations. In 1992, the *Regulations Governing Applications by Financial Institutions for New Kinds of Financial Business* was issued to encourage financial institutions to introduce new financial products. Moreover, the development of the Asia-Pacific financial center in 1995 provided a new drive to the process of liberalisation.

In **Thailand,** finance companies were allowed to operate the leasing business in 1991. In 1993, financial institutions were allowed to trade debt securities, while insurance companies were allowed to invest up to 60 percent of their total assets in stocks and unit trusts. In 1995, finance companies were allowed to mobilise funds from the public by issuing bills of exchange. In 1997, permission was given to banks, finance companies and securities companies to set up property loan management companies.

Table 1.4
Liberalisation of the Scope of Operations
Chronology of Measures Implemented by the SEACEN Countries

Year	1980	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96
Indon												---	---				
Kor	---	---	---	---	===		---	---			---				---	---	----
Malay											---	---					
Phils	===										---		===				
Sing	n.a.																
Sri L.							---	---	---	---	---	---	===				
Taiw								---	---	===	---		===	---		===	
Thai												---	===	===	===	===	

-- minor measures; === major measures; xxx policy reversal or backtracking
n.a. not applicable or no data available

Liberalisation of the ownership structure

Indonesia allowed foreign equity participation of up to a maximum of 85 percent in joint ventures with domestic banks in 1988. Other related measures were implemented in subsequent years. In particular, foreign investors were permitted to acquire 49 percent of the shares of listed banks through the bourse in 1992.

In the **Philippines**, the introduction of universal banking in 1980 widened the scope for ownership of domestic financial institutions. In 1994, the entry and scope of operations of foreign banks were liberalised.

Korea liberalised the ownership of financial institutions in 1981 when four national banks were privatised. This was followed by other measures to further increase private equity participation in Korean financial institutions in the early 1980s.[26]

In **Taiwan**, single-person ownership ceilings were provided for in the revised *Banking Law*, which was enacted in 1989. Moreover, regulations pertaining to internal controls on financial institutions were liberalised in 1993, and those on credit cooperatives in 1994.

26. In 1997, the limit on a financial entrepreneur's ownership of bank shares was eased.

Table 1.5
Liberalisation of Ownership Structure
Chronology of Measures Implemented by the SEACEN Countries

Year	1973	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96
Indon																===	---	---	---	===	===			
Kor									---	---	---	---												
Malay	===	===															===	===						
Phils								===														===		
Sing	n.a.																							
Sri L.							---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	===	===	
Taiw																	===				---	---		
Thai	n.a.																							

--- minor measures; === major measures; xxx policy reversal or backtracking
n.a. not applicable or no data available

Broadening managerial autonomy

In the case of the **Philippines,** the internal management of financial institutions had been essentially autonomous from the outset. However, in the 1990s, some measures were taken to further enhance managerial autonomy. For instance, banks were allowed to establish ATMs without prior BSP approval. Moreover, the banking schedule was Liberalised, allowing banks greater discretion in determining the schedule of their operations in line with the variable needs of their clients.

In **Korea,** where the internal management of financial institutions was influenced to a large extent by the government for two decades, measures to broaden the managerial autonomy of financial institutions were a major component of the financial liberalisation programme. In the early 1980s, regulations pertaining to the internal management of banks were abolished in stages, and direct controls on individual banks were replaced by an indirect system of controls. In the 1990s, the committee system for the recommendation of chief executive officers (CEOs) was introduced. Moreover, banks were allowed to increase their capital at their own discretion and hold the equity of their subsidiaries freely. With regard to securities companies, the regulation on the amount of stock issue was abolished in 1996.

In **Taiwan,** efforts to broaden managerial autonomy involved the issuance of regulations on internal control in financial institutions in 1993 and in credit cooperatives in 1994.

Table 1.6
Broadening Managerial Autonomy
Chronology of Measures Implemented by the SEACEN Countries

Year	1980	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96
Indon	n.a.																
Kor	===	---	---		---								---	---	---	---	---
Malay	n.a.																
Phils.*												---		---		---	
Sing	n.a.																
Sri L.									===	===							
Taiw									===			---		===	---		
Thai	n.a.																

-- minor measures; === major measures; xxx policy reversal or backtracking
n.a. not applicable or no data available

Development of the capital market

In **Indonesia**, efforts to develop the capital market started in 1983 when banks were allowed to raise capital through the issuance of new shares in the capital market. In 1987, foreign investors were allowed to purchase shares in the stock exchange. Moreover, over-the-counter or secondary stock exchanges, in which foreign investors were allowed to participate, were established.

Malaysia initiated measures to develop its capital market as early as 1978 with the expansion of the role of the private sector in marketing Malaysian Government Securities (MGS). However, subsequent measures were implemented only in the latter half of the 1980s and early 1990s. In 1987, the first government bonds were issued. In 1988, the Interbank Funds Transfer System, the Scripless Securities Trading System, the Kuala Lumpur Automated Clearing House and the Day-One Settlement System were established. In the early 1990s, other measures were put in place, among them, the establishment of a credit rating agency (RAM) and the liberalisation of EPF rules.

In the **Philippines**, efforts to develop the market for long-term funds began with the deregulation of long-term interest rates in 1980. However, major measures to deepen the capital market were implemented only in the 1990s when the National Government introduced several long-term debt instruments. The issuance of three-year Floating-Rate Treasury Notes (FRTNs) in 1991 paved the way for longer-term issues in subsequent years, such as twenty-year fixed-rate treasury notes (FXTNs) in 1997.

Early on, **Singapore** had undertaken various measures to develop its capital market. Foreign entities were allowed to issue Singapore dollar-denominated bonds in Singapore. Meanwhile, banks were allowed to enter into Singapore-dollar repurchase agreements of up to a maximum of S$20 million with non-bank non-residents, as well as to transact Singapore-dollar currency and interest rate swaps with special purpose vehicles for securitising mortgages. Moreover, tax incentives were introduced to encourage origination and trading of debt securities, even as an efficient clearing system for corporate bonds was being developed.

In **Taiwan**, the development of the capital market began with the establishment of the Taiwan Securities Exchange and the promulgation of the *Securities Exchange Act* in the 1960s. The *Act* was revised in May 1983 to introduce the Securities Investment Trust Company. In 1988, further major revisions were made, where the legal basis for the reporting system, information disclosure and establishment of new domestic and foreign securities firms were provided. The legal basis for securities financing and securities investment consultation was promulgated in July 1979 and November 1987, respectively. In 1991-92, the Government, while adhering to the balanced-budget principle, issued a number of government bonds in order to finance the Six-Year National Development Plan. This move served as a stimulus for the development of the bond market.

Thailand implemented its capital market development programme starting in 1992. Among the major measures put in place were the following: (a) issuance of non-negotiable certificates of deposit; (b) introduction of the scripless clearing settlement system;

(c) establishment of the first credit rating agency; (d) formation of the Bond Dealers' Club; and (e) issuance of long-term bonds.

Table 1.7
Development of the Capital Market
Chronology of Measures Implemented by the SEACEN Countries

Year	1978	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96
Indon						===				===	===		---						
Kor	n.a.																		
Malay	===									===	===		===		===		---	---	---
Phils			---											===			===	===	===
Sing	n.a.																		
Sri L.				---			---			===			===	===	===				
Taiw		===	---	---		===		---		===	===	---	===	===	---		===	---	---
Thai															===	===	===	---	

--- minor measures; === major measures; xxx policy reversal or backtracking
n.a. not applicable or no data available

Development of the regional financial centre

Taiwan's efforts to establish a regional financial hub started with the creation of an offshore financial business centre in 1984. This was followed by the revision of the *Statute for Foreign Exchange Regulation,* which lifted foreign exchange controls in 1987; the establishment of the foreign currency call loan market in 1989; and the promulgation of the Asia-Pacific Operational Centre Plan in 1995, which aimed to liberalise cross-border capital flows by end-2000. These measures, along with the network of international money brokers, helped to develop Taipei as a regional financial centre.

In the case of **Thailand**, the BIBFs were established in 1993 in line with the goal of developing Bangkok into a regional financial centre. These facilities aimed to provide banking services to non-residents and residents in local and foreign currencies. Moreover, in 1994, finance companies were allowed to open offices abroad. In 1996, branch-opening guidelines for foreign banks were issued.

Table 1.8
Development of the Regional Financial Centre
Chronology of Measures Implemented by the SEACEN Countries

Year	1981	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96
Taiw				===			===		===						===	
Thai													===	===	===	===

--- minor measures; === major measures; xxx policy reversal or backtracking
n.a. not applicable or no data available

Strengthening the prudential regulatory and supervisory framework of the financial system

In **Indonesia**, measures to strengthen prudential regulation and supervision were implemented only in the 1990s. These took the form of improvements in the areas of administration, clarification of guidelines, and enhancing transparency in documentation and information-related matters (e.g., discontinuing the practice of maintaining hidden reserves, disclosing off-balance sheet items in notes to accounts, allowing foreign banks to disclose information on credit facilities to their parent supervisory authorities).

Malaysia imposed the minimum capital-adequacy requirement of 8 percent in 1989. In 1994, the BNM introduced the two-tier regulatory system for banks. In 1996, the two-tier system was extended to finance companies and merchant banks.

In the **Philippines**, prudential regulatory measures were put in place as early as 1948 under the *General Banking Act*, which stipulated the following requirements: (a) capital adequacy ratio of 10 percent; (b) shareholder ownership ceilings; and (c) single-borrower's loan (SBL) limit of 15 percent (which was increased to 25 percent in 1992). Other measures to strengthen prudential regulation and supervision were implemented in subsequent years, namely: (a) imposition of limits on DOSRI (directors, stockholders, officers and related interest) loans in 1973; (b) expansion of the CBP's supervisory power to include subsidiaries and affiliates of banks and non-banks with quasi-banking functions (NBQBs) in 1981; (c) enforcement of the Basle standard for capital adequacy in 1993; (d) waiver of the secrecy of deposits for borrowers making loans in the nature of DOSRI loans in 1993; and (e) issuance of the guidelines on derivatives trading in 1995.[27]

Measures to improve the regulatory and supervisory framework were complemented with measures to strengthen financial institutions, among them: (a) launching of a rehabilitation programme for rural banks (1987); (b) issuance of guidelines for the merger or consolidation of weaker banks with stronger ones (1989); (c) implementation of a sustained and vigorous capital build-up programme (beginning 1990); (d) requiring all expanded commercial banks list at least ten percent of their paid-in capital at the Philippine Stock Exchange (PSE) for three years, with the objective of keeping these institutions within the disciplining power of the market (1995); and (e) implementation of the Paperless Interbank Call Loan (IBCL) transactions, which reduced the operational risks involved in paper-based transactions and improved the efficiency and productivity of the banking sector. The establishment of the Bangko Sentral ng Pilipinas (BSP), which replaced the former Central Bank of the Philippines (CBP), in 1993 also constituted a milestone in the programme to strengthen the Philippine financial system.

In **Singapore,** stringent rules on financial reporting were enforced, such as the disclosure of detailed information on loan-loss provisions and off-balance sheet items in notes to accounts. Moreover, the capital adequacy ratio requirement was tightened by expanding the definition of Tier 1 capital.

In **Sri Lanka**, despite the liberalisation of the domestic financial sector in 1977, prudential regulation was formally imple-

27. To check over-investment in speculative activities, such as real estate, the BSP imposed caps on lending to the property sector in early 1997.

mented only in 1988, with the passage of the *Banking Act*. The Act endowed the Central Bank of Sri Lanka (CBSL) with powers to regulate banks in a wide range of areas, among them: (a) single-borrower limits; (b) limits on ownership shares; (c) minimum capital requirements; (d) liquidity requirements; and (e) limits on DOSRI lending. Meanwhile, the *Finance Companies Act No. 78*, which was also passed in 1988, strengthened the role of the CBSL in the regulation and supervision of NBFIs. In 1993, the Bank for International Settlements (BIS) capital adequacy requirement was imposed.

During the process of **Taiwan's** financial liberalisation, emphasis was placed on establishing and maintaining financial order and discipline both on the part of government and the financial community. To further strengthen financial institutions' self-discipline, the CBC and Ministry of Finance (MOF) collaborated in helping financial institutions to establish various internal control systems, such as risk management and internal audit systems. Measures included strengthening the training for internal controls and promoting external audit by accountants. To improve financial market discipline, information disclosure was emphasised. In 1975, the revision of the *Banking Act* allowed the CBC to impose ceilings on selected loan collateral. In 1989, the diversified ownership structure was strengthened and the CBC accepted the top-down approach in financial examination for internal management.

In 1991, the MOF promulgated the *Guidelines for Financial Institutions to Set Up Internal Controls.* In 1994, the Ministry also approved the *Ethical Standards for Members of the Republic of China (ROC) Banking Association.* These measures aimed to promote financial self-discipline in the market. With regard to market discipline, the government required financial institutions to disclose more information relating to their operations and financial condition. To improve the accountability of market participants, financial institutions were urged to exercise prudence in their transactions. In the case of listed financial institutions, the MOF required the disclosure of major deficiencies that appeared in the examination reports during the previous two fiscal years and the corrective actions subsequently taken. In 1995, the reporting requirement was tightened.

Thailand implemented measures to strengthen prudential regulation in the 1990s. The measures included the following: (a) increase in the paid-up capital requirement for finance companies and credit foncier companies in 1992; (b) enforcement of the Basle capital-adequacy standard in 1993; (c) increase in banks' minimum reserves for doubtful debts in 1994; (d) imposition of requirement for banks to submit management details on foreign currency in 1995; (e) issuance of guidelines derivatives trading in 1995; (f) imposition of a 100-percent provision for non-performing loans on finance, securities and credit foncier companies in 1996; and (g) imposition of the requirement for banks to submit monthly reports on real estate credits in 1997.

Table 1.9
Strengthening the Prudential and Supervisory Framework
Chronology of Measures Implemented by the SEACEN Countries

Year	1948	49	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96
Indon																								===	---			---	
Kor																								=xx	---	===	===	---	---
Malay												---								---		===	---			---	===		===
Phils	===					===								===		---			---	---		---	===	===	---	===	---	===	---
Sing																													
Sri L.																					===	===	===			===			---
Taiw								===											===		---	---	===		---	===	===	---	---
Thai																									---	---	---	===	===

--- minor measures; === major measures; xxx policy reversal or backtracking
n.a. not applicable or no data available

5.1.3 Liberalisation of the capital account

Measures to open the capital account in the SEACEN countries included the liberalisation of repatriation, foreign borrowing, and portfolio and direct investment flows; the easing of rules on the entry of foreign financial institutions; and the establishment of foreign currency deposit systems.

Repatriation of capital

Indonesia allowed capital repatriation in 1982. In the case of the **Philippines**, full and immediate repatriation of foreign capital was allowed in 1993, provided the foreign exchange required to service said repatriation would be sourced from outside the banking system.

In **Korea**, rules on repatriation were eased starting 1990. Further reforms were instituted from 1993 to 1997. Meanwhile, **Sri Lanka** liberalised repatriation in 1993.

In **Taiwan**, the CBC drew up the regulation on inward remittances in March 1987, which stipulated that the repatriation from government-approved overseas investment could be either deposited in a foreign exchange deposit account, or sold, provided that the amount did not exceed US$1 million. In July 1987, the revision of the *Statute for Foreign Exchange Regulation* provided two options for the repatriation of residents' foreign direct investments: one for those with government approval and the other for those without government approval. In October 1993, the staying requirement for non-residents' foreign direct investments in Taiwan prior to repatriation was lifted. The staying requirement for other non-resident investments was lifted in January 1996.

Thailand started to liberalise repatriation in the late 1980s with the abolition of the prior approval requirement for the outward transfer of capital dividends in 1989. The repatriation of dividends and proceeds from sales of stock by foreigners was allowed in 1994.

Table 1.10
Repatriation of Capital Chronology of Measures Implemented by the SEACEN Countries

Year	1981	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96
Indon		===														
Kor										---			---	---	---	---
Phils													===			
Sing	n.a.															
Sri L.													===			
Taiw							---				---		---			---
Thai									---					===		

--- minor measures; === major measures; xxx policy reversal or backtracking
n.a. not applicable or no data available

Entry of foreign financial institutions

Indonesia liberalised the entry of foreign financial institutions in stages from 1987 to 1992. Meanwhile, the **Philippines** allowed the entry and widened the scope of operations of foreign banks in 1994.

Korea started to allow foreign securities companies to establish representative offices in the country in 1981. However, further measures to enhance competition from foreign financial institutions were undertaken only in the 1990s, particularly when the economic needs test for the establishment of foreign banks was abolished (1994), and foreign financial institutions were allowed to take a stake in domestic banks (1995). Meanwhile, **Sri Lanka** liberalised the entry of foreign financial institutions in 1979.

In **Taiwan**, measures to liberalise the entry of foreign financial institutions included the major revision of the *Guidelines for Foreign Banks to Set Up Branches* in 1983 and 1994, the promulgation of the *Standard for Setting Up Foreign Securities Firms* in 1988, and the major revision of the *Insurance Act* in 1992.

In **Thailand**, efforts to liberalise the entry of foreign financial institutions were closely related to the development of the regional financial centre, which was pursued vigorously beginning 1992.

In contrast to reform efforts in these SEACEN countries, **Malaysia** imposed some restrictions on the entry of foreign financial institutions in 1979.

Table 1.11
Entry of Foreign Financial Institutions
Chronology of Measures Implemented by the SEACEN Countries

Year	1979	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96
Indon									---	---				---				
Kor			---										---		===	---	===	===
Malay	xxx																	
Phils																===		
Sing																		
Sri L.	===																	
Taiw					===				---	===		---		===		===		
Thai														===	===			

--- minor measures; === major measures; xxx policy reversal or backtracking

n.a. not applicable or no data available

Foreign borrowing

Indonesia liberalised foreign borrowing in 1988 when the prohibition on banks to acquire funding from abroad was abolished.

Foreign borrowing was liberalised in **Malaysia** in 1987, when the limit on offshore loans was raised from RM 100,000 to RM1 million per loan. Moreover, Bank Negara Malaysia exercised more flexibility in evaluating requests from local companies to source funds from abroad for investment purposes subject to certain criteria. Rules on foreign borrowing were further eased when the loan limit for which Non-resident Controlled Companies (NRCC) could obtain domestic borrowing was raised from RM500, 000 to RM10 million.

In the **Philippines,** the BSP approval requirement for specific types of private sector loans was lifted in 1993. The loans that were made exempt from BSP approval were (a) those granted by foreign companies to their local branches/subsidiaries for funding eligible projects/ purposes, and (b) those covering the importation of freely importable commodities covered by deferred letters of credit, documents against acceptance and open-account arrangements.[28]

28. These loans, however, still need to be registered with the BSP to be eligible for subsequent servicing using foreign exchange purchased from the banking system.

In **Korea**, foreign borrowing was liberalised beginning 1985 when domestic companies were allowed to issue convertible bonds. In 1992, public corporations were allowed to issue foreign currency-denominated securities, while the types of securities that could be issued were expanded. Meanwhile, measures to liberalise trade credits were implemented from 1991 until 1994.[29] Moreover, selected institutions were allowed to borrow abroad beginning 1996.[30]

Meanwhile, **Sri Lanka** eased the rules on foreign borrowing in 1995. The new rules allowed commercial banks to obtain foreign loans equivalent to up to 5 percent of their capital and reserves. This limit was further raised to 15 per cent with the introduction of foreign-currency loans to non-Board of Investments (BOI) exporters in 1997.

In **Taiwan**, the CBC opened and froze the foreign liability balances of FX banks in 1987. The ceiling was removed and re-imposed and enlarged many times. Finally, the ceiling was removed in 1997.

Thailand eased the rules on foreign borrowing in 1993 and 1994, but imposed restrictions in 1995 and 1996, probably as a counter-measure to the rapid build-up of foreign debt.

Table 1.12
Liberalisation of Foreign Borrowing
Chronology of Measures Implemented by the SEACEN Countries

Year	1985	86	87	88	89	90	91	92	93	94	95	96
Indon				===			---					
Kor	===						===	===	===	===		===
Malay			===									
Phils									===			
Sing	n.a.											
Sri L.											===	
Taiw		—x			---	---	---	---	---	---	---	
Thai									===	===	xxx	xxx

--- minor measures; === major measures; xxx policy reversal or backtracking
n.a. not applicable or no data available

29. Further measures in this area were implemented in 1997.
30. In 1997, the annual limit on long-term foreign borrowing by domestic banks was abolished.

Establishment of a foreign currency deposit system

In **Indonesia**, foreign currency deposit (FCD) units started operating only in 1989. Meanwhile, **Malaysia** established its FCD system in 1994. The same year, authorised dealers and merchant banks were allowed to lend in foreign currency to residents up to a certain limit.

The **Philippines** established an FCD system in 1972, the first among the SEACEN countries. However, FCD units (FCDUs) were authorised to grant medium- and long-term loans to the private sector without prior BSP approval only in 1993, subject to the provision that such loans will be serviced using funds sourced from outside the banking system. In **Korea**, FCDUs were allowed to operate in 1981.

Sri Lanka allowed commercial banks to operate foreign-currency banking units (FCBUs) in 1979. Moreover, in 1980, the resident non-national foreign currency (RNNFC) accounts scheme was introduced. In 1997, commercial banks were permitted to provide foreign currency loans to non-BOI exporters, from either their domestic units or their FCBUs, subject to some safeguards.

Taiwan allowed the operation of FCDUs in 1978, when it established an embryonic foreign exchange market. Authorised banks were allowed to deal in foreign exchange in this market without seeking clearance from the CBC. Foreign exchange earners were also permitted to keep their foreign-currency earnings in the form of deposits. For financial stability, the redeposit requirement for FCDUs was imposed and removed in 1990, re-imposed in 1993, and finally removed in 1994.

In **Thailand**, resident individuals or juridical entities were allowed to open foreign currency accounts, subject to certain conditions, in 1991. In 1992, government and state agencies were allowed to deposit unlimited amounts of foreign currencies in their foreign currency accounts.

Table 1.13
Establishment of a Foreign Currency Deposit System
Chronology of Measures Implemented by the SEACEN Countries

Year	1972	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96
Indon																		===							
Kor										===															
Malay																							===		
Phils	===																					===			
Sing	n.a.																								
Sri L.								===	===																
Taiw							===	---											x---			xxx	===		
Thai																				===	===				

--- minor measures; === major measures; xxx policy reversal or backtracking
n.a. not applicable or no data available

Portfolio investment inflows

Indonesia liberalised portfolio investment inflows in stages in 1989, 1992 and 1996. In the case of the **Philippines**, portfolio inflows were liberalised with the phased removal of the BSP registration and approval requirement for specific amounts of such types of investments, subject to certain conditions, in 1993 and 1996.

In **Korea**, inward portfolio investments were liberalised beginning 1981, when trust companies were allowed to issue foreign beneficiary certificates overseas. Foreigners, on the other hand, were allowed to make indirect investments through open-end type investment trusts starting in 1984. Subsequent measures to liberalise portfolio investment inflows were implemented in 1985, lasting until the onset of the crisis in 1997.

Sri Lanka eased the regulations on portfolio inflows in 1990 and 1992. In 1990, permission was granted to country funds, regional funds and non-resident individuals to invest in a maximum of 40 percent of the shares of listed companies. Moreover, the 100-percent transfer tax on such purchases of shares of stock was abolished.

In **Taiwan**, foreign investments in securities were allowed starting in 1983. More significant steps to liberalise portfolio inflows were undertaken in 1997 with the revision of the *Offshore Banking Act*, which allowed offshore banking units to engage in the foreign-currency securities business. Moreover, domestic listed companies were allowed to be listed in foreign markets.

Thailand started to allow the movement of portfolio investments in 1991. The establishment of BIBFs in 1992 further improved the access of domestic entities to foreign funds.

In contrast to the other SEACEN countries, **Malaysia** imposed controls on portfolio inflows in 1994.

Table 1.14
Liberalisation of Portfolio Investment Inflows
Chronology of Measures Implemented by the SEACEN Countries

Year	1981	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96
Indon									===			---				---
Kor	---			---	---		---		---	---		===	---	===	===	===
Malay														xxx		
Phils													===			===
Sing	n.a.															
Sri L.										===		===				
Taiw										===	---		---	---	===	---
Thai											===	===				

--- minor measures; === major measures; xxx policy reversal or backtracking
n.a. not applicable or data not available

Portfolio investment outflows

Indonesia liberalised portfolio investment outflows in 1982. In the **Philippines**, outward portfolio flows were liberalised in 1993 and 1996, along with the easing of rules on portfolio inflows.

Korea implemented the first batch of measures to liberalise outward portfolio flows in 1985-88. For instance, securities companies were permitted to participate in underwriting foreign-currency securities in 1985. Another wave of minor reforms to allow greater freedom in outward portfolio transactions was implemented beginning 1990, with major reforms being implemented in 1994-96. These included the abolition of ceilings on outward portfolio investments by specific groups of institutional investors and the granting of authority to international financial institutions to issue Korean won-denominated securities in the domestic market. Moreover, foreign companies were allowed to issue equity and be listed on the Korean stock market and to issue depository receipts in the domestic market.[31]

In **Taiwan**, the NT dollar Earmarked Trust Fund was allowed to operate in June 1986. The trust duration and the minimum holding period requirement were removed in February 1990. In 1991, the operation of the Foreign Currency Earmarked Fund was allowed, while the issue of TDR was allowed in 1992. The formal guidelines for foreigners to issue depository receipts and bonds in Taiwan were provided in 1996.

In the case of **Thailand**, measures to liberalise portfolio investment outflows were implemented beginning 1991.

Table 1.15
Liberalisation of Portfolio Investment Outflows
Chronology of Measures Implemented by the SEACEN Countries

	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96
Indon			---														
Kor						---	---	---	---		---	---	---	---	===	===	===
Malay	n.a.																
Phils														===			===
Sing	n.a.																
Sri L.	n.a.																
Taiw							===				---	---					===
Thai												===					

--- minor measures; === major measures; xxx policy reversal or backtracking
n.a. not applicable or no data available

31. The domestic issuance of foreign currency-denominated bonds by non-residents was also permitted beginning 1997.

Direct investment inflows

Indonesia followed a gradual approach to the liberalisation of direct investment inflows, with the implementation of reforms in this area in 1985-89, 1990-94 and 1996. Reforms focused on encouraging investments in export-oriented industries.

In **Malaysia**, foreign investors were allowed 100-percent ownership of domestic firms from October 1986 to end-1991, if their company exported 50 percent or more of its production or employed 350 full-time Malaysian workers and if the products did not compete with local products. However, in 1992 the regulations on foreign direct investments were revised, allowing foreign companies which exported 50-70 percent of their production to hold equity of up to 100 percent if these companies invested RM50 million or more in fixed assets, or implemented projects which had at least 50-percent value-added, provided products did not compete with local products. These guidelines were in force until July 1998. In 1994, approved regional headquarters were exempted from certain exchange controls.

The **Philippines** liberalised FDI inflows in 1993. Three categories of investment were opened to foreigners: (a) direct/equity investments; (b) investments in government securities and/or securities listed in the Philippine Stock Exchange (PSE); and (c) investments in money market instruments and/or bank deposits.

As with other liberalisation measures in **Korea**, the lifting of controls on direct investment inflows was also spread over a long period. While foreigners had been allowed to make indirect investments through open-end type investment trusts from the early 1980s, they were permitted to invest directly in the Korean securities markets only beginning 1992, subject to some limits, which were subsequently eased. The list of items restricted or closed to FDI, which was introduced in 1984, was shortened subsequently, while investment requirements were eased.

Sri Lanka started to liberalise foreign direct investments (FDIs) in 1978.

In **Taiwan**, inward FDIs required the approval of the CBC, MOE (Ministry of Economic Affairs) and MOF prior to the revision of the *Statute for Foreign Exchange Regulation* in July 1987. However, obtaining approval was relatively easy and the CBC generally did not reject the application based on foreign exchange management concerns. The policy direction was not to encourage capital inflows but to regulate capital outflows. The revision of the *Statute* in July 1987 resulted in a two-layer system, where resident and non-resident FDIs with government approval had no remittance constraints. This revision can be considered as the start of the liberalisation of FDI inflows, subject to the approval of the competent authority.

Thailand liberalised direct investment inflows in 1991.

Table 1.16
Liberalisation of Direct Investment Inflows
Chronology of Measures Implemented by the SEACEN Countries

Year	1976	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96
Indon										===	---	---	---	---		---	---	---	---		---
Kor									===	---		---	---	---	---	---	===	---	---	===	===
Malay											===						===		===		
Phils																		===			
Sing	n.a.																				
Sri L.			===																		
Taiw												===						---			---
Thai																===					

--- minor measures; === major measures; xxx policy reversal or backtracking
n.a. not applicable or no data available

Direct investment outflows

Indonesia liberalised direct investment outflows in 1991. In **Malaysia**, outward investments were liberalised in stages: in 1986, 1992 and 1994. Meanwhile, the **Philippines** freed up direct investment outflows in 1993.

Korea adopted a gradual approach, implementing minor measures beginning 1981 and more major measures subsequently. Among the more significant reforms implemented were the following: increasing the limit on overseas direct investment in 1988 and reducing the number of sectors closed to outward direct investment starting 1993. Full liberalisation was achieved in 1996. In the case of **Sri Lanka**, direct investment outflows were liberalised in 1995.

In **Taiwan**, under the *Statute for Foreign Exchange Regulation*, which was implemented in December 1970, only financially sound companies with approval could undertake outward investments. The CBC could reject applications based on foreign exchange management concerns, as controls were focused on capital outflows. The revision of the *Statute* in 1987 resulted in a two-layer system similar to that for inward investments. Considering that the CBC would not restrict remittances for competent authority-approved cases, direct investment outflows could be viewed as having been liberalised from July 1987 onwards.

Thailand began the gradual lifting of restrictions on the outflow of capital for overseas investment in 1991. However, more major measures were taken in 1994.

Table 1.17
Liberalisation of Direct Investments Outflows
Chronology of Measures Implemented by the SEACEN Countries

Year	1980	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96
Indon												---					
Kor		---	---	---	---	---	---	---	===	---	---	---	---	===	---	===	===
Malay							===						===		===		
Phils														===			
Sing	n.a.																
Sri L.																---	
Taiw								===						---	---		---
Thai												---			===		

--- minor measures; === major measures; xxx policy reversal or backtracking
n.a. not applicable or no data available

The foregoing review of the liberalisation programmes shows that the SEACEN countries followed different approaches to liberalisation. It is interesting to note Korea's protracted liberalisation process and Thailand's somewhat fast pace of liberalisation.

5.2 Analysis of Macroeconomic Developments: 1990-96[32]

This Section, which comprises three sub-sections, analyses the macroeconomic developments in the SEACEN economies during the period 1990-96. The first sub-section provides an overview of the economic conditions in the SEACEN region during the so-called boom years (1990-95), or the period during which the SEACEN economies generally experienced robust growth. This growth has been attributed largely to massive capital inflows following the implementation of the twin liberalisations in these countries.

The second sub-section analyses the macroeconomic developments in each of the SEACEN countries in 1996, the pre-crisis year.[33] The analysis aims to determine areas of weakness in the SEACEN economies, which could have led to the crisis in 1997. The last sub-section compares the macroeconomic developments in the SEACEN countries prior to the crisis.

5.2.1 The boom years: 1990-95[34]

In the early 1990s, global and domestic conditions combined to create a surge in capital inflows in most of the SEACEN countries. On

32. This comparative analysis of macroeconomic and financial developments in the SEACEN countries is constrained by the unavailability of data on some indicators for some countries; generalisations pertaining to certain indicators are based only on available data on these indicators. For instance, when a particular country is observed to have the highest (lowest) value for an indicator among the SEACEN countries, or in the SEACEN region, this means that this country has the highest (lowest) value among the SEACEN countries for which data on said indicator are available.

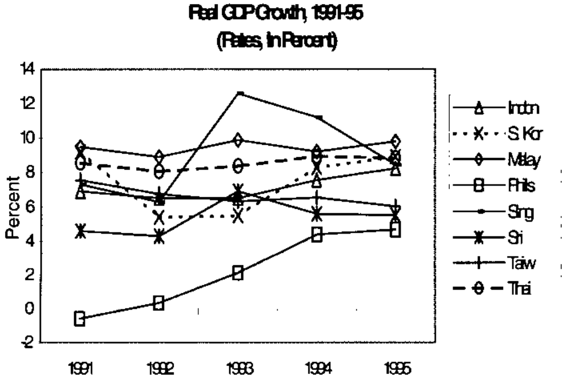
33. In most of the individual country papers, the pre-crisis period covers January 1996-June 1997, as discussed in the section on Methodology above. However, due to data constraints, and to facilitate comparison across countries, the Integrative Report limits the pre-crisis period to 1996.

34. Growth rates are averaged over the period 1991-95. On the other hand, level values are averaged over the period 1990-95.

the one hand, limited investment opportunities in Western economies and persistently huge Japanese trade surpluses vis-à-vis the United States increased the international supply of funds; on the other hand, expansionary policies in most of the emerging SEACEN economies increased the need for foreign financing. Meanwhile, the ongoing implementation of the twin liberalisations in the SEACEN countries helped to match the increasing domestic demand for foreign funds with the growing international supply of capital. The resulting surge in foreign capital inflows, in turn, fueled growth in the SEACEN region during the first half of the 1990s.

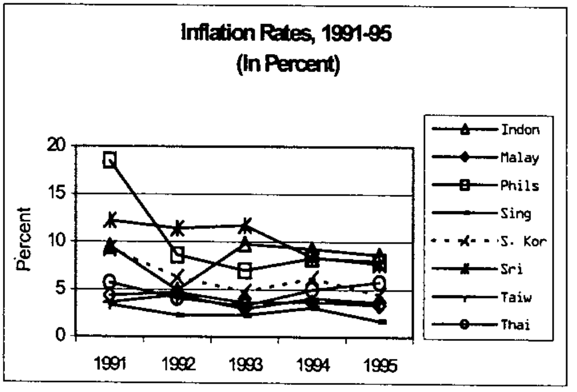
The SEACEN countries experienced substantial **output growth** during the first half of the 1990s, with real GDP expanding at an average rate of 7.0 percent from 1991 to 1995. Malaysia posted the highest average output growth for the period at 9.5 percent, followed by Singapore and Thailand with 9.1 percent and 8.6 percent, respectively. The Philippines recorded the lowest average real GDP growth for the period at 2.2 percent, owing to poor economic performance in 1991 and 1992.[35]

Figure 1.1



35. The Philippines posted a contraction in real GDP growth of 0.6 percent in 1991 and a negligible growth of 0.3 percent in 1992.

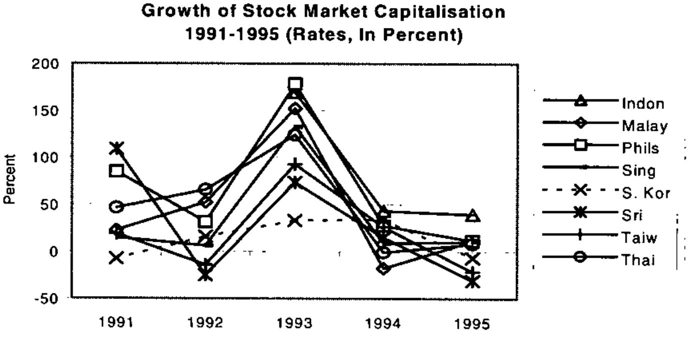
Figure 1.2



Strong output growth in the SEACEN region in the first half of the 1990s was achieved alongside gains in the area of **price stability.** Except for Sri Lanka, the SEACEN countries recorded single-digit inflation, on average, from 1991 to 1995. Sri Lanka posted an average inflation rate of 10.1 percent for the period. The Philippines and Indonesia followed with 9.4 percent and 8.2 percent, respectively. With the exception of Korea, the rest of the SEACEN countries had average inflation rates below 5.0 percent.

The equities market in the region also saw strong growth during the first half of the 1990s. **Stock market capitalisation** ex-

Figure 1.3



panded, on average, by 33.3 percent from 1991 to 1995. Indonesia posted the highest average growth in stock market capitalisation at 75.1 percent. The Philippines came second with 57.2 percent. For most countries, the surge in the stock market occurred in 1993. Singapore, Taiwan and Korea had the most highly capitalised stock markets by end-1995.

Stock prices rose by an average of 10.4 percent in the SEACEN countries in 1991-95. The Philippine stock price index posted the highest growth rate at 31.8 percent, way above the regional average, primarily due to the surge in stock prices in 1993. In Malaysia, Sri Lanka and Thailand, stock prices averaged higher than the regional average during the six-year period. Meanwhile, Taiwan registered an average drop of 0.8 percent in the stock price index during the period.

Table 1.18
Growth of Stock Price Index

	1991	1992	1993	1994	1995	1991-95 Ave.
Indonesia	-40.8	10.9	114.6	-20.2	9.4	4.2
Korea	-12.0	-10.6	24.0	32.6	-3.2	4.6
Malaysia	9.9	15.8	98.0	-23.8	2.5	14.5
Philippines	76.7	10.2	154.8	-14.1	-6.9	31.8
Singapore	0.2	-0.9	23.5	19.1	-9.4	5.7
Sri Lanka	114.0	117.0	-27.0	61.0	0.7	11.5
Taiwan	-27.5	-13.1	-2.0	49.4	-10.8	-0.8
Thailand	-6.9	9.9	28.6	39.5	-6.6	11.4

During the first half of the 1990s, **domestic credit** expanded quite rapidly in the SEACEN countries, at an average rate of 20.3 percent. In the Philippines domestic credit growth averaged 32.3 percent from 1991 to 1995. Thailand and Taiwan also posted high average growth rates at 22.3 percent and 20.0 percent, respectively, for the period. Meanwhile, domestic credit expansion in the other countries was less than 20.0 percent, with Sri Lanka recording the lowest at 14.1 percent.

Figure 1.4

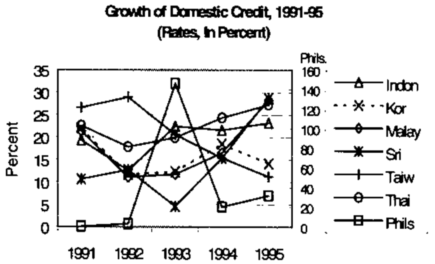
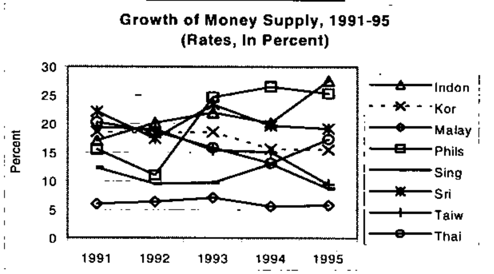


Figure 1.5



In 1991-95, Indonesia, the Philippines and Sri Lanka posted the highest growth rates of **money supply** in the SEACEN region, with rates averaging more than 20.0 percent. With the exception of Malaysia, the other SEACEN countries also recorded double-digit growth rates. Malaysia appears to have followed a downward trend with M2 growth averaging only 6.2 percent during the period.

In the financial sector, the SEACEN countries also showed strong performance in 1991-95, with the total **assets of the financial system** expanding at an average rate of 20.0 percent. Total financial system assets in Thailand, Korea and the Philippines posted the highest average growth rates, at 24.6 percent, 22.2 percent and 20.7 percent, respectively, during the period. Other countries had growth rates less than 20.0 percent. In terms of banking system assets, Thailand and the Philippines likewise recorded the highest average growth rates at 22.9 percent and 21.2 percent, respectively. In the case of Korea, however, banking system assets expanded at a slower pace

(15.5 percent) compared to the growth in the assets of the financial system (22.2 percent) during the period.

Table 1.19
Growth of Assets of the Banking and Financial Systems and Ratio of Assets of Banking System to Assets of Financial System: 1990-95

	Average Growth Rate 1991-95		*Ratio of Assets of Banking System to Assets of Financial System 1990-95 Ave.*
	Assets of the Fin. System	*Assets of the Banking System*	
Indonesia	n.a.	18.4	n.a.
Korea	22.2	15.5	33.2
Malaysia	17.9	17.7	56.8
Philippines	20.7	21.2	75.7
Singapore	n.a.	n.a.	n.a.
Sri Lanka	19.7	19.4	n.a.
Taiwan	14.6	15.7	81.2
Thailand	24.6	22.9	67.9

* n.a. – no data available

It is interesting to note that, in the case of Korea, the assets of the banking system comprised only 33.2 percent, on average, of the total assets of the financial system from 1990 to 1995. In Malaysia and Thailand the resources of the banking system also did not comprise a large portion of total financial system resources, at 56.8 percent and 67.9 percent, respectively. By contrast, banks accounted for a large share of financial system resources in the Philippines and Taiwan, at 75.7 percent and 81.2 percent, respectively. The relatively strong presence of non-bank financial institutions (NBFIs) in some of the SEACEN countries could indicate that a large percentage of financial institutions were not properly regulated/supervised, considering the weak regulatory/supervisory frameworks for NBFIs in most of the SEACEN countries.

The average **non-performing loan (NPL) ratios** in the SEACEN countries ranged from a low of 1.4 percent (Taiwan) to a high of 13.7 percent (Indonesia) during the first half of the 1990s. With the exception of Thailand, NPL ratios in the SEACEN countries followed a general downtrend during the period. Malaysia posted a relatively higher average NPL ratio for the period (12.6 percent), despite the sharp decline in its NPL ratios toward the end of the period, on account of very high ratios in the early 1990s. Thailand's NPL ratio remained relatively steady at the high end during the period.

Figure 1.6

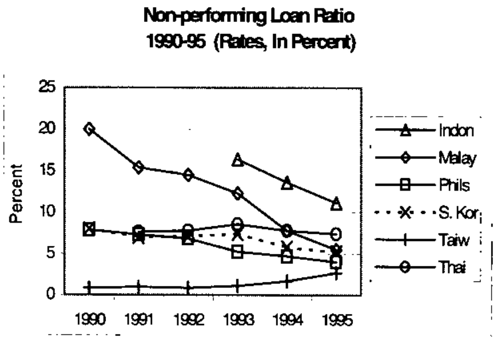
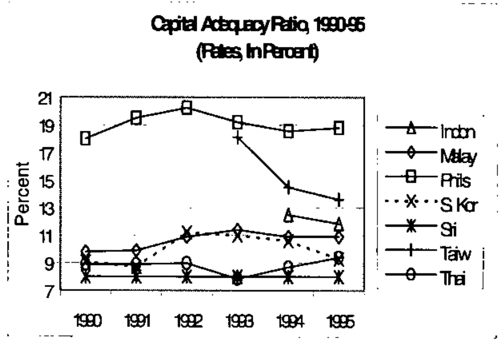


Figure 1.7



In terms of **capital adequacy**, the Philippines recorded the highest ratio of net worth to risk assets in 1990-95, at an average of 19.0 percent. Taiwan came second with 15.4 percent. Others had average ratios of about 10.0 percent. Thailand and Sri Lanka registered the lowest ratios at 8.8 percent and 8.0 percent, respectively, which, nonetheless, still complied with the Basle standard of 8.0 percent.

On the external side, the SEACEN countries maintained relatively healthy **balance-of-payments (BOP)** positions, on average, during the first half of the 1990s. Malaysia registered the highest BOP-to-GDP ratio for the period at 4.8 percent, owing to a significantly high BOP surplus in 1993. Thailand also recorded a high ratio of 3.6 percent. Singapore had the lowest ratio at less than 0.1 percent.

Table 1.20
Balance of Payments as a Ratio to GDP (GNP)

	1990	1991	1992	1993	1994	1995	1990-95 Ave.
Indonesia	1.4	0.8	1.1	0.5	0.5	0.8	0.8
Korea	-0.1	-1.3	1.6	1.9	0.7	0.6	0.6
Malaysia	4.5	2.5	11.1	16.9	-4.2	-2.0	4.8
Philippines	-0.2	4.6	2.8	-0.3	2.7	0.8	1.7
Singapore	0.1	0.1	0.1	0.1	0.0	0.1	0.1
Sri Lanka	2.4	2.4	1.8	5.0	2.6	-0.5	2.3
Taiwan	-2.5	5.4	0.6	0.7	1.9	-1.5	0.8
Thailand	4.4	4.2	2.7	3.1	2.9	4.3	3.6

Except in the case of Taiwan, the favorable BOP position of the SEACEN countries were due largely to positive **capital account** balances, which offset the high current account deficits, during the first half of the 1990s.

Table 1.21
Capital Account Balance as a Ratio to GDP (GNP)

	1990	1991	1992	1993	1994	1995	1990-95
Indonesia	3.2	3.9	4.2	3.8	2.3	5.3	3.8
Korea	1.0	2.2	2.1	0.8	2.6	3.4	2.0
Malaysia	4.1	11.4	14.8	16.1	1.6	8.6	9.4
Philippines	4.0	4.1	3.4	5.1	6.9	4.5	4.7
Singapore	n.a	n.a	n.a	n.a	n.a	n.a	n.a
Sri Lanka	n.a	n.a	n.a	n.a	n.a	n.a	n.a
Thailand	11.4	11.5	8.7	8.4	8.4	13.0	10.2
Taiwan	-9.5	-1.2	-3.3	-2.1	-0.6	-3.2	-3.3

n.a. – not available

Taiwan recorded large **current account** surpluses from 1990 to 1995, which averaged 4.3 percent relative to GDP during the period. On the other hand, Thailand incurred very large current account deficits, which averaged 6.6 percent relative to GDP during period. Sri Lanka, the Philippines and Indonesia also experienced large current account deficits relative to GDP (GNP) during the first half of the 1990s.

Table 1.22
Current Account Balance as a Ratio to GDP (GNP)

	1990	1991	1992	1993	1994	1995	1990-95 Ave.
Indonesia	-2.2	-3.0	-2.1	-1.5	-1.7	-3.4	-2.3
Korea	-0.8	-2.8	-1.3	0.3	-1.0	-1.7	-1.2
Malaysia	-2.1	8.6	3.7	-4.6	-4.2	-9.7	-1.4
Philippines	-5.8	-1.9	-1.6	-5.4	-4.5	-4.3	-3.9
Singapore	n.a	n.a	n.a	n.a	n.a	n.a	n.a
Sri Lanka	-4.7	-6.9	-5.7	-4.8	-7.4	-5.8	-5.9
Taiwan	6.8	7.0	4.0	3.2	2.7	2.1	3.8
Thailand	-8.3	-7.5	-5.5	-4.9	-5.4	-7.8	-6.6

n.a. — not available

In terms of **export growth**, Korea, the Philippines and Sri Lanka recorded significant increases from 1991 to 1995. Indonesia and Taiwan also experienced a surge in exports during the five-year period. Meanwhile, Singapore's exports remained relatively stable during the period. Malaysia and Thailand experienced declining export growth, although they posted the highest average growth rates, during the period.

Table 1.23
Export Growth (In Percent), 1991-95

	1991	1992	1993	1994	1995	1991-95 Ave.
Indonesia	10.6	14.0	8.3	9.9	18.0	12.1
Korea	10.5	6.6	7.3	16.8	30.3	14.0
Malaysia	18.6	9.7	17.0	27.0	20.2	18.4
Philippines	8.0	11.1	15.8	18.5	29.4	16.3
Singapore	6.8	7.5	16.0	18.9	12.3	12.2
Sri Lanka	3.1	20.0	16.0	11.0	18.0	13.5
Taiwan	13.0	6.9	4.5	9.4	20.0	10.8
Thailand	23.8	13.8	13.4	22.1	24.8	19.5

For the period 1990-95, **net foreign investments** in the SEACEN countries amounted to US$107 billion, of which 36.0 percent consisted of direct equity infusions.[36] Malaysia registered the highest level of net foreign investments, at US$33 billion, in 1990-95 (Figure 1.8). Moreover, net inflows to Malaysia consisted largely of direct investments (75.8 percent). Korea had the second-highest level of net foreign investments, at US$31.5 billion, during the period. However, in the case of Korea, net foreign investment inflows consisted wholly of portfolio inflows, which exceeded net direct investments by more than 700 percent, as the latter posted a net outflow of US$5.2 billion during the period. Thailand and Indonesia also received large amounts of net foreign investments (US$22.9 billion and US$21.2 billion, respectively). Less than half (43.0 percent) of inflows to Thailand consisted of direct investments while about 60.0 percent of inflows to Indonesia consisted of direct equity infusions. Meanwhile, Taiwan posted a net investment outflows of US$8.2 billion as substantial net direct investment outflows of US$10.2 billion offset net portfolio inflows of US$1.9 billion. In the case of the Philippines, direct equity infusions accounted for around 90.0 percent of net inflows amounting to roughly US$ 5.9 billion. Net investment inflows to Sri Lanka were the lowest among the SEACEN countries at US$762.2 mil-

36. This does not include Singapore's investment data.

lion, although 77.0 percent of this consisted of direct investments. Ratio of direct to total investments to the SEACEN countries is presented in Figure 1.9.

Figure 1.8

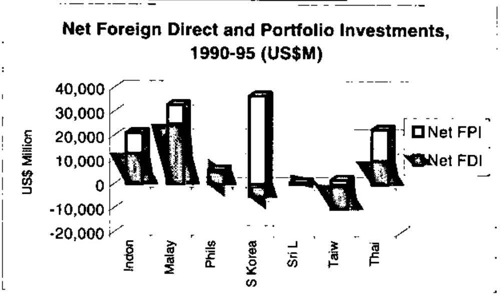


Figure 1.9

Ratio of Direct to Total Investments, 1990-95 (%)	
Indonesia	60.3
Malaysia	75.8
Philippines	89.6
Korea	-16.5
Sri Lanka	77.0
Taiwan	-84.3
Thailand	43.0

The **foreign exchange liabilities** of the SEACEN countries more than doubled from 1990 to 1995 (Table 1.24). Korea had the highest level of foreign exchange liabilities at US$127.2 billion as of end-1995. Of this, about 56.0 percent were short-term. Indonesia had the second-highest level of foreign exchange liabilities. However, less than 10 percent consisted of short-term loans. Thailand also had a high level of external debt at US$82.6 billion, of which around half was short-term. In the case of Taiwan, more than 90.0 percent of its foreign liabilities were short-term. However, foreign liabilities totaled only US$24.0 billion. The Philippines had a relatively low level of external obligations at US$39.4 billion, of which 13.4 percent was short-term. Sri Lanka had the lowest level of foreign exchange liabilities at US$8.7 billion, and also the lowest ratio of short-term external liabilities to total external liabilities, at 6.2 percent, in 1995.

Table 1.24
Total Foreign Exchange Liabilities, 1990-95 (US$ Billion)

	1990	1991	1992	1993	1994	1995	Share of short-term obligations to total, 1995
Indonesia	n.a.	65.7	73.4	80.6	96.5	107.8	8.8
Korea	n.a.	n.a.	n.a.	n.a.	96.9	127.2	56.3
Philippines	30.0	31.4	32.1	35.5	38.7	39.4	13.4
Sri Lanka	5.6	6.5	6.8	7.6	8.3	8.7	6.2
Taiwan	9.9	12.6	14.6	16.2	19.7	24.0	90.7
Thailand	29.3	37.9	43.6	52.1	64.9	82.6	49.8

Note: Data on Korea's foreign exchange liabilities before 1994 are not available since the compiling method has been changed from the World Bank method to the IMF method.

Overall, then, the SEACEN economies followed generally the same path of high growth and declining inflation during the first half of the 1990s. The period also saw the expansion of most of the financial systems in the region, as well as a surge in foreign investment inflows, which helped buoy economic growth. However, some unfavorable trends started to emerge, such as the rapid build-up of foreign exchange liabilities and the rising share of short-term obligations to these liabilities.

5.2.2 Prelude to the crisis: 1996

In contrast to developments during the first half of the 1990s, the macroeconomic fundamentals of the SEACEN countries began to diverge in 1996. The following discussion provides a more detailed analysis of the macroeconomic developments in each of the SEACEN countries, with the view to determining areas of weakness, which could have led to the crisis in 1997.

Indonesia

Developments in Indonesia's real and fiscal sectors in 1996 did not indicate the likelihood of a crisis (Table 1.25). While real GDP growth decelerated from 8.2 percent in 1995 to 7.8 percent in 1996, the latter was still high compared to the 1996 average output growth of 6.7 percent for the SEACEN countries. It also represented an improvement over the 1991-95 average real GDP growth rates of 7.1 percent for Indonesia. Moreover, inflation in Indonesia declined to 6.6 percent in 1996 from 8.6 percent in 1995 and an average of 8.4 percent during the first half of the 1990s.

The Indonesian stock market was also robust in 1996. The composite stock price index rose at an accelerating pace of 24.1 percent compared to 9.4 percent in 1995 and an average of 4.2 percent in 1991-95. However, growth of stock market capitalisation declined from an average of 75.1 percent in 1991-95 and 39.3 percent in 1995 to 36.3 percent in 1996. Nonetheless, the growth of Indonesia's stock market capitalisation in 1996 was still among the highest in the SEACEN region.

Table 1.25
Indonesia: Selected Real and Fiscal Sector Indicators
(Rates, in %)

Indicators	1990	1991	1992	1993	1994	1995	1990-95 Ave.*	1996
GDP growth	n.a.	6.9	6.5	6.5	7.5	8.2	7.1	7.8
Inflation rate	n.a.	9.5	4.9	9.8	9.2	8.6	8.2	6.6
Stock market capitalisation (annual % change)	n.a	n.a	n.a	169.3	43.0	39.3	75.1	36.3
Stock price index (annual % change)	n.a.	-40.8	10.9	114.6	-20.2	9.4	4.2	24.1
Fiscal balance /GDP	0.4	0.4	-0.4	0.6	0.9	2.2	0.7	1.2

*Growth rates are averaged over the period 1991-95. Level values are averaged over the period 1990-95.

n.a. – not applicable or no data available

Meanwhile, the fiscal sector was also relatively healthy. Although the fiscal balance/GDP ratio declined to 1.2 percent in 1996 from the 1995 level of 2.2 percent, the 1996 level was still an improvement over the average of 0.7 percent during the first half of the 1990s. Thus, Indonesia's macroeconomic fundamentals appeared to be generally healthy prior to the crisis.

However, Indonesia's monetary and external sectors showed signs of vulnerability. In the monetary sector, money supply (M) expanded at an average rate of 21.3 percent in 1991-95—the fastest among the SEACEN countries—and further to 29.6 percent in 1996. This resulted in high M/GDP ratios of around 40-50 percent in 1990-95, which increased further to 70.0 percent in 1996. High M/GDP ratios indicate money supply levels that may feed speculative activity and trigger a currency crisis. Indonesia's average ratio of M over gross international reserves (GIR) was also among the highest in the region, at 474.4 percent, in 1996. As noted in the literature on early warning signals of currency crises, a high M/GIR ratio indicates a strong likelihood of crisis since high money supply levels constrain the central bank's ability to meet the increasing demand for foreign exchange in the event that local and foreign investors shift their portfolios from local- to foreign currency-denominated assets during a speculative attack on the local currency.

While Indonesia had relatively moderate domestic credit (DC) growth, averaging 19.7 percent in 1991-95 and 21.7 percent in 1996, its DC/GDP ratios were in the high range of 40-50 percent in the years prior to the crisis (Table 1.26). High DC/GDP ratios indicate a credit boom that could lead to increased risky lending and eventually to a banking crisis.

Table 1.26
Indonesia: Selected Monetary Sector Indicators
(Rates, in %)

Indicators	1990	1991	1992	1993	1994	1995	1990-95 Ave.*	1996
M2 growth	n.a.	17.1	20.2	22.0	20.2	27.6	21.3	29.6
M2/GDP	43.0	44.0	46.0	44.0	49.0	58.0	47.3	70.0
M2/GIR	468.6	394.2	346.0	365.6	455.5	513.5	423.9	474.4
Growth of domestic credit	n.a.	19.3	12.5	22.4	21.6	23.2	19.7	21.7
Domestic credit/ GDP	46.0	45.1	43.5	45.6	49.4	51.6	46.9	55.0

*Growth rates are averaged over the period 1991-95. Level values are averaged over the period 1990-95.

n.a. – not applicable or no data available

Apart from monetary sector indicators that reflected an over-expansion of money supply, banking system indicators in Indonesia also pointed to some weaknesses (Table 1.27). The rapid growth of bank assets, averaging 18.4 percent in 1991-95, which increased further to 25.6 percent in 1996, appears to have led to the deterioration of asset quality. The NPL ratio of commercial banks averaged 13.7 percent for the period 1993-95, the highest among the SEACEN countries.[37] While the ratio dropped to 9.5 percent in 1996, it was still the highest in the region. Nonetheless, in terms of capitalisation, Indonesian commercial banks had capital adequacy ratios averaging 12.2 percent in 1990-95 and 11.8 percent in 1996, well above the Basle standard.

37. Data on Indonesia's NPL ratiosare not available prior to 1993.

Table 1.27
Indonesia: Selected Financial Sector Indicators
(Rates, in %)

Indicators	1990	1991	1992	1993	1994	1995	1990-95 Ave*	1996
Growth of assets of financial system	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
Growth of assets of banking system	n.a.	15.5	19.4	17.0	15.9	24.4	18.4	25.6
Ratio of assets of banking system to total assets of the financial system	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
Non-performing loan ratio of commercial banks (KBs)	n.a	n.a	n.a	16.4	13.6	11.1	13.7	9.5
Capital adequacy ratio of KBs	n.a	n.a	n.a	n.a	12.5	11.9	12.2	11.8

*Growth rates are averaged over the period 1991-95. Level values are averaged over the period 1990-95.

n.a. – not applicable or no data available

Indonesia's external sector also showed some weaknesses. It had the second-highest level of foreign exchange liabilities among the SEACEN countries, at US$107.8 billion, in 1995. Foreign debt increased further to US$110.2 billion in 1996. Meanwhile, short-term foreign exchange liabilities (STFXL) amounted to about half (52.1 percent) of gross international reserves (GIR) in 1996. This placed Indonesia in a tight position in terms of servicing its short-term external debt in the event of massive capital flight. Indonesia also shouldered the highest debt service burden among the SEACEN countries, averaging 35.3 percent, compared to the SEACEN countries' average of 15.8 percent, during the first half of the 1990s. Indonesia's debt service burden rose further to 41.8 percent in 1996. A major reason for this was its slow export growth, which was the lowest in the region at 12.1 percent in 1991-95, and which declined further to 5.8 percent in 1996. Meanwhile, Indonesia's current account deficit (CAD) to GDP ratio remained at the 1995 level of 3.4 percent in 1996. However, this represented a worsening current account position relative to the 1990-95 average CAD/GDP ratio of 2.3 percent.

Thus, while Indonesia's real and fiscal sectors seemed generally healthy with high GDP growth, decelerating inflation and a healthy fiscal position—there were major weaknesses in the monetary and external sectors prior to the crisis. On the monetary side, money supply expanded quite rapidly, resulting in high M/GDP and M/GIR ratios, as well as high DC/GDP ratios. Meanwhile, the banking sector showed deterioration in asset quality. In the external sector, Indonesia had the second-highest level of foreign exchange liabilities (a large portion of which was on the short-term end), an onerous debt service burden, declining export growth, and a worsening current account deficit.

Table 1.28
Indonesia: Selected External Sector Indicators
(Rates, in %)

Indicators	1990	1991	1992	1993	1994	1995	1990-95 Ave.*	1996
Current account balance/GDP	-2.2	-3.0	-2.1	-1.5	-1.7	-3.4	-2.3	-3.4
Export growth	n.a.	10.6	14.0	8.3	9.9	18.0	12.1	5.8
Total foreign exchange liabilities (FXL)								
Level (US$M)	n.a.	65,697	73,358	80,591	96,500	107,832	107,832*	110,170
Annual % change	n.a.	n.a.	11.7	9.9	19.7	11.7	10.4*	2.2
Ratio of short-term FXL (STFXL) to total FXL	n.a.	14.0	11.4	10.9	8.0	8.8	10.6	12.1
GIR (US$M)	9,501	12,615	16,689	18,823	17,416	19,787	19,787**	25,529
Months' worth of imports	5.3	6.1	7.5	8.0	6.5	5.8	6.5	6.9
STFXL/GIR	n.a.	72.7	48.8	46.8	44.4	47.9	52.1	52.4
Debt service burden	31.9	32.0	39.1	36.3	37.6	34.9	35.3	41.8

* Growth rates are averaged over the period 1991-95. Level values are averaged over the period 1990-95.
** 1995 level
n.a. – not applicable or no data available

Malaysia

In contrast to most of the SEACEN countries, Malaysia continued to post strong growth in 1996, with real GDP expanding by 10.0 percent from 9.8 percent in 1995 and an average of 9.5 percent in 1991-95. Inflation decelerated from an average of 4.0 percent in 1991-95 to 3.5 percent in 1996. However, the latter was slightly higher than the 3.4 percent inflation rate posted in 1995 (Table 1.29).

Table 1.29
Malaysia: Selected Real and Fiscal Sector Indicators
(Rates, in %)

Indicators	1990	1991	1992	1993	1994	1995	1990-95 Ave.*	1996
GDP growth	n.a.	9.5	8.9	9.9	9.2	9.8	9.5	10.0
Inflation rate	n.a.	4.4	4.7	3.6	3.7	3.4	4.0	3.5
Stock market capitalisation (annual % change)	n.a.	22.6	52.3	152.1	-17.9	11.2	33.8	42.6
Stock price index (annual % change)	n.a.	9.9	15.8	98.0	-23.8	2.5	14.5	24.4
Fiscal balance/ GDP	-3.0	-2.1	-0.9	0.2	2.4	0.9	-0.4	0.8

*Growth rates are averaged over the period 1991-95. Level values are averaged over the period 1990-95.

n.a. – not applicable or no data available

The stock market was robust. Total capitalisation grew at an average rate of 33.8 percent in 1991-95 and 42.6 percent in 1996, which was way above the 1995 growth rate of 11.2 percent. Meanwhile, the growth of the stock price index accelerated from 14.5 percent in 1991-95 to 24.4 percent in 1996, the latter also significantly higher than the 2.5 percent growth rate recorded in 1995. On the fiscal side, the deficits of the early 1990s turned into surpluses beginning 1993, from an average fiscal balance/GDP ratio of negative 0.4 percent in 1990-95, to a positive ratio of 0.8 percent in 1996.

In the monetary sector, indicators seemed to indicate an expansionary monetary policy stance in the run-up to the crisis. Money supply growth accelerated to 10.8 percent in 1996 from 5.8 percent in 1995 and an average of 6.2 percent in 1991-95. Malaysia also had high M/GDP ratios, which averaged 110.7 percent in 1990-95 and rose further to 130.0 percent in 1996. The SEACEN averages for the two reference periods were only 82.2 percent and 94.6 percent, respectively. Malaysia's M/GIR ratios were also among the highest in the region, averaging 368.3 percent in 1990-95, and increasing further to 471.0 percent in 1996. The average M/GIR ratios for the SEACEN countries were 291.1 percent in 1990-95 and 316.9 percent in 1996 (Table 1.30).

Table 1.30
Malaysia: Selected Monetary Sector Indicators
(Rates, in %)

Indicators	1990	1991	1992	1993	1994	1995	1990-95 Ave.*	1996
M growth	n.a.	6.0	6.4	7.1	5.6	5.8	6.2	10.8
M/GDP	109.0	99.0	106.0	114.0	114.0	122.0	110.7	130.0
M/GIR	427.0	437.0	337.0	257.0	326.0	426.0	368.3	471.0
Growth of domestic credit	n.a.	21.3	11.1	11.7	16.5	28.3	17.6	27.6
Domestic credit/ GDP	109.0	104.0	104.0	101.0	104.0	117.0	106.5	131.0

*Growth rates are averaged over the period 1991-95. Level values are averaged over the period 1990-95.

n.a. – not applicable or no data available

The domestic credit growth that was quite moderate in 1991-95, with the average of 17.6 percent, also grew significantly higher to 27.6 percent in 1996 compared with the SEACEN average of 20.4 percent. Rapid credit expansion raised the DC/GDP ratio to 130.0 percent in 1996, from an average of 106.5 percent in 1990-95.

Malaysia's financial system continued to grow prior to the crisis. In 1996, financial system assets expanded at a much faster rate of 22.9 percent—among the highest in the SEACEN region—compared to an average of 17.9 percent in 1991-95. On the other hand, the growth of the assets of the banking system was among the lowest in the region, averaging 17.7 percent in 1991-95. In 1996, however, the assets of Malaysia's banking system increased by 22.5 percent, which compared favourably with growth rates in other SEACEN countries. Malaysia also had a fairly well developed non-banking sector. The assets of non-bank financial institutions (NBFIs) made up 43.2 percent of the total assets of the financial system, on average, in 1990-95 and 41.8 percent in 1996.

The growth of the banking system was achieved alongside improvements in asset quality (Table 1.31). The NPL ratio of the Malaysian commercial banking system dropped significantly from an average of 12.6 percent in 1990-95 to 3.7 percent in 1996. Meanwhile, capital remained adequate to cover risk assets, with the net-worth-to-risk-assets ratio remaining at a comfortable level of about 10.0 percent from 1990 to 1996.

Table 1.31
Malaysia: Selected Financial Sector Indicators (Rates, in %)

Indicators	1990	1991	1992	1993	1994	1995	1990-95 Ave.*	1996
Growth of assets of financial system	n.a.	15.1	17.6	28.9	9.3	19.5	17.9	22.9
Growth of assets of banking system	n.a.	17.5	14.4	27.9	7.7	22.1	17.7	22.5
Ratio of assets of banking system to total assets of financial system	58.1	58.3	56.5	54.8	55.8	57.2	56.8	58.2
Non-performing loan ratio of commercial banks (KBs)	20.0	15.4	14.5	12.3	7.8	5.5	12.6	3.7
Capital adequacy ratio of KBs	9.8	9.9	10.9	11.4	10.9	10.9	10.6	10.7

*Growth rates are averaged over the period 1991-95. Level values are averaged over the period 1990-95.
n.a. – not applicable or no data available

Malaysia also had a strong external position (Table 1.32). Its STFXL/GIR ratio was among the lowest in the SEACEN region, at 22.8 percent in 1990-95 and 35.8 percent in 1996.[38] These ratios were well below the regional averages for the two reference periods of 82.3 percent and 90.4 percent, respectively.

Malaysia showed robust export growth in 1991-95, at an average rate of 18.4 percent, the second highest in the region. However, export growth dropped significantly to 6.5 percent in 1996. Meanwhile, Malaysia's strong export performance translated into a low debt service burden, which averaged 6.9 percent in 1990-95, the lowest in the region, and stayed at this level in 1996, even with the slowdown in exports.

Despite the generally positive trends in Malaysia's external sector, however, the current account position showed some deterioration. The ratio of the current account deficit (CAD) to GDP increased from an average of 1.4 percent in 1990-95 to 4.4 percent in 1996, although the 1996 level was much lower than the 9.7 percent recorded in 1995.

Table 1.32
Malaysia: Selected External Sector Indicators
(Rates, in %)

Indicators	1990	1991	1992	1993	1994	1995	1990-95 Ave.*	1996
Current account balance/ GDP	-2.1	8.6	3.7	-4.6	-4.2	-9.7	-1.4	-4.4
Export growth	n.a.	18.6	9.7	17	27	20.2	18.4	6.5
GIR (US$M)	10,659	11,717	18,024	28,183	n.a.	n.a.	n.a.	n.a.
Months' worth of imports	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Ratio of short-term foreign exchange Liabilities to GIR (STFXL/GIR)	16.3	23.5	27.8	22.7	20.9	25.4	22.8	35.8
Debt service burden	8.3	7.0	6.9	7.1	5.5	6.6	6.9	6.9

*Growth rates are averaged over the period 1991-95. Level values are averaged over the period 1990-95.
n.a. – not applicable or no data available

38. Data on Malaysia's total foreign exchange liabilities are not available.

In summary, Malaysia had generally healthy fundamentals prior to the crisis. In particular, indicators in the real and fiscal sectors reflected a high growth-low inflation economy with a prudent fiscal stance. However, monetary sector indicators pointed to some areas of concern, such as high DC/GDP, M/GDP and M/GIR ratios. Nonetheless, the banking and financial systems continued to grow. Moreover, there was a significant improvement in the asset quality of the commercial banking system, while capital remained adequate to cover risk assets. External sector indicators were also generally favourable: a low debt service burden, and a STFXL/GIR ratio that was among the lowest in the region. However, export growth declined in 1996, which led to deterioration in the current account.

Philippines

In the case of the Philippines, macroeconomic developments started to take a turn for the better prior to the onset of the crisis. While the country recorded the lowest real output growth—at an average rate of 2.2 percent—in 1991-95, it was the only SEACEN country, apart from Malaysia, that posted an increase in real output growth in 1996. As seen in Table 1.33, real GDP growth reached 5.9 percent in 1996 from 4.7 percent in 1995. Moreover, while the growth of stock prices declined to 22.2 percent in 1996 from an average rate of 31.8 percent in 1991-95, it was still very high compared to the SEACEN average of 3.9 percent in 1996. Meanwhile, the growth of stock market capitalisation accelerated to 32.7 percent in 1996—significantly higher than the SEACEN average of 13.1 percent—from 11.5 percent in 1995.

Table 1.33
Philippines: Selected Real and Fiscal Sector Indicators (Rates, in %)

Indicators	1990	1991	1992	1993	1994	1995	1990-95 Ave.*	1996
GDP growth	n.a.	-0.6	0.3	2.1	4.4	4.7	2.2	5.9
Inflation rate	n.a.	18.5	8.6	7.0	8.3	8.0	10.0	9.1
Stock market capitalisation (annual % change)	n.a.	84.7	31.4	178.3	27.3	11.5	57.2	37.2
Stock price index (annual percent change)	n.a.	76.7	10.2	154.8	-14.1	-6.9	31.8	22.2
Fiscal balance/GNP	-3.5	-2.1	-1.2	-1.5	0.9	0.6	-1.0	0.3

*Growth rates are averaged over the period 1991-95. Level values are averaged over the period 1990-95.
n.a. – not applicable or no data available

Meanwhile, the inflation rate declined to 9.1 percent in 1996, from an average of 10.0 percent in 1991-95, the highest in the region. There was also an improvement in the fiscal position. From an average fiscal balance/GNP ratio of negative 1.1 percent in 1990-95, the Philippines recorded a fiscal surplus equivalent to 0.3 percent of GNP in 1996. The Philippines had been posting fiscal surpluses since 1994.

In the monetary sector, indicators reflected a surge in lending activity prior to the onset of the crisis (Table 1.34). In 1996, domestic credit expanded by 39.1 percent from an average growth rate of 32.3 percent in 1991-95. These rates were considerably higher than the SEACEN average of 20.2 percent for the period 1991-95 and 20.4 percent in 1996. However, the Philippines' DC/GNP ratio of 35.7 percent was among the lowest in the region during the period 1990-95. Although the ratio increased in 1996 to 66.7 percent, it was still among the lowest in the region.

Moreover, while domestic credit growth increased in 1996, the growth of money supply decelerated from 25.3 percent in 1995 to 15.8 percent in 1996. Thus, while the M/GIR ratio for the Philippines was quite high, averaging 361.5 percent in 1990-95, it declined sharply to 286.3 percent in 1996. The 1996 ratio was well below the SEACEN average of 316.9 percent. Moreover, the Philippines' M/GNP ratios, which averaged 31.6 percent in 1990-95 and reached 39.0 percent in 1996, were much lower than the SEACEN averages of 82.2 percent and 94.6 percent, respectively.

Table 1.34
Philippines: Selected Monetary Sector Indicators
(Rates, in %)

Indicators	1990	1991	1992	1993	1994	1995	1990-95 Ave*	1996
M growth	n.a.	15.5	11.0	24.6	26.5	25.3	19.5	15.8
M/GNP	28.1	27.7	28.0	32.0	35.0	38.9	31.6	39.0
M/GIR	603.5	279.1	283.0	299.1	323.0	381.5	361.5	286.3
Growth of domestic credit	n.a.	0.6	3.0	146.1	20.5	31.9	32.3	39.1
Domestic credit/GNP	25.0	21.4	20.2	45.2	47.3	55.3	35.7	66.7

*Growth rates are averaged over the period 1991-95. Level values are averaged over the period 1990-95

n.a. – not applicable or no data available

In contrast to the experience of some of the SEACEN countries, the Philippine financial system continued to be robust in the years prior to the crisis. In 1991-95, the total assets of the financial system grew at an average rate of 20.7 percent, among the highest in the region. Financial system assets continued to expand in 1996 by 26.9 percent, the highest among the SEACEN countries. The expansion of financial system assets was underpinned by the growth of the assets of the banking system, which averaged 21.2 percent in 1991-95 and rose to 32.2 percent in 1996 (Table 1.35). Meanwhile, banking system assets constituted 75.7 percent and 80.0 percent of total financial system assets in 1990-95 and in 1996, respectively.

Table 1.35
Philippines: Selected Financial System Indicators (Rates, in %)

Indicators	1990	1991	1992	1993*	1994	1995	1990-95 Ave*	1996
Growth of assets of financial system	n.a.	15.8	17.3	25.0	21.1	24.5	20.7	26.9
Growth of assets of banking system	n.a.	13.4	17.5	25.5	23.0	27.2	20.6	32.2
Ratio of assets of banking system to total assets of financial system	76.2	74.6	74.7	75.0	76.2	77.9	75.7	80.0
Non-performing loan ratio of commercial banks (KBs)	7.9	7.3	6.8	5.3	4.7	4.0	6.0	3.5
Capital adequacy ratio of KBs	18.0	19.5	20.2	19.2	18.6	18.8	19.0	16.8

*Growth rates are averaged over the period 1991-95. Level values are averaged over the period 1990-95.
n.a. – not applicable or no data available

Despite the rapid growth of the Philippine banking system in the years prior to the crisis, asset quality remained sound. The NPL ratio of Philippine commercial banks was the second lowest among the SEACEN countries during the first half of the 1990s, at 6.0 percent, and declined further to 3.5 percent in 1996. The Philippine commercial banking system also had the highest capital adequacy ratio in the region at 19.0 percent in 1990-95, and 16.8 percent in 1996. These were significantly above the SEACEN averages of 12.0 percent in 1990-95 and 11.4 percent in 1996.

In the external sector, the Philippines had among the lowest levels of foreign exchange liabilities in the SEACEN countries, at US$39.4 billion in 1995 and US$41.9 billion in 1996 (Table 1.36). Growth of foreign exchange liabilities was also among the lowest in the region, at an average rate of 5.6 percent in 1991-95, which increased slightly to 6.4 percent in 1996. Meanwhile, the ratio of short-term foreign exchange liabilities to total foreign exchange liabilities averaged 14.6 percent in 1990-95 and 17.2 percent in 1996, much lower than the regional averages of 33.7 percent and 37.2 percent, respectively. While the STFXL/GIR ratio was among the highest in 1990-95, averaging 107.5 percent, it declined sharply to 61.3 percent in 1996, as the Philippines started to build up its foreign exchange reserves following robust capital inflows. The Philippines' STFXL/GIR ratio in 1996 was way below the SEACEN average of 90.4 percent.

Table 1.36
Philippines: Selected External Sector Indicators
(Rates, in%)

	1990	1991	1992	1993	1994	1995	1990-95 Ave.*	1996
Current account balance/GNP	-0.2	4.6	2.8	-0.3	2.7	0.8	1.7	4.8
Export growth	n.a.	8.0	11.1	15.8	18.5	29.4	15.0	17.7
Total foreign exchange liabilities (FXL)								
Level (US$M)	29,955	31,392	32,089	35,535	38,723	39,367	39,367**	41,875
Annual % change	n.a.	4.8	2.2	10.7	9.0	1.7	5.6	6.4
Ratio of short-term FXL (STFXL) to total FXL	14.6	15.4	16.4	14.2	13.4	13.4	14.6	17.2
Gross international reserves (GIR)	2,048	4,526	5,338	5,922	7,122	7,762	7,762**	11,745
Months' worth of imports	1.5	3.4	3.4	3.2	3.1	2.6		3.2
STFXL/GIR	213.6	106.7	98.5	85.0	73.0	68.0	107.5	61.3
Debt service burden	27.2	19.6	17.0	17.1	17.4	15.8	19.0	12.7

*Growth rates are averaged over the period 1991-95. Level values are averaged over the period 1990-95.

n.a. – not applicable or no data available

** 1995 level

The Philippines' debt service burden also followed a declining trend in the years prior to the crisis. From an average of 19.0 percent in 1990-95—among the highest in the region—the ratio of debt service to exports of goods and services declined sharply to 12.7 percent in 1996. At this level, the Philippines' debt service burden was lower than the SEACEN average of 13.3 percent.

Exports also continued to be robust, growing by 17.7 percent in 1996 compared to the average growth rate of 16.3 percent in 1991-95. The Philippines' export performance is particularly noteworthy against the backdrop of weakening export performance in the SEACEN region in 1996.

Thus, except for high domestic credit and money supply growth, the Philippines recorded generally improving macroeconomic fundamentals prior to the crisis. Output growth was accelerating. Inflation was on a downtrend. Stock market capitalisation was strong. The banking system remained robust, with growth in assets accompanied by improvements in asset quality and capital adequacy. This translated into a healthy financial system due to the large proportion of banking institutions in the financial system. In the external sector, the Philippines had among the lowest levels of external liabilities in the SEACEN countries, and only a small portion of foreign debt was short-term. Export growth was also strong, which helped reduce the debt service burden.

Singapore

Following the general economic slowdown in the SEACEN region, Singapore experienced a deceleration in real GDP growth in 1996 to 7.5 percent from 8.5 percent in 1995 and an average of 9.1 percent in 1991-95 (Table 1.37). Moreover, inflation remained very low, declining to 1.4 percent in 1996 from 1.7 percent in 1995 and an average of 2.6 percent in 1991-95.

In the stock market, the growth of stock market capitalisation slowed to 3.1 percent in 1996 from 10.2 percent in 1995 and an average of 27.9 percent in 1991-95. However, the stock price index recovered, reversing the 9.4 percent drop in 1995 with a gain of 8.7 percent in 1996. The stock price index grew at an average rate of 5.7 percent in 1991-95.

Table 1.37
Singapore: Selected Real and Fiscal Sector Indicators
(Rates, in %)

Indicators	1990	1991	1992	1993	1994	1995	1990-95 Ave.*	1996
GDP growth	n.a.	7.3	6.3	12.6	11.2	8.5	9.1	7.5
Inflation rate	n.a.	3.4	2.3	2.3	3.1	1.7	2.6	1.4
Stock market capitalisation (annual % change)	n.a.	14.9	6.3	132.8	9.1	10.2	27.9	3.1
Stock price index (annual % change)	n.a.	0.2	-0.9	23.5	19.1	-9.4	5.7	8.7
Fiscal balance/GDP	10.6	8.6	12.6	15.5	16.0	14.3	12.9	n.a.

*Growth rates are averaged over the period 1991-95. Level values are averaged over the period 1990-95.

n.a. – not applicable or no data available

On the monetary side, indicators reflected continuing favourable conditions (Table 1.38). Money supply growth was among the lowest in the region, averaging 10.6 percent in 1991-95 and 8.6 percent in 1996. These were well below the average growth rates of money supply in the SEACEN countries of 16.1 percent in 1991-95 and 14.1 percent in 1996. On account of this and of a significantly high level of international reserves, the M/GIR ratio of Singapore was among the lowest in the region at 140.0 percent in 1996, down from the average of 153.3 percent in 1990-95.

Table 1.38
Singapore: Selected Monetary Sector Indicators
(Rates, in %)

Indicators	1990	1991	1992	1993	1994	1995	1990-95 Ave.*	1996
M growth	n.a.	12.3	9.5	9.7	13.0	8.7	10.6	8.6
M/GDP	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
MG/IR	170.0	170.0	150.0	140.0	150.0	140.0	153.3	140.0

*Growth rates are averaged over the period 1991-95. Level values are averaged over the period 1990-95.

n.a. – not applicable or no data available

External sector indicators were also generally favourable. Owing to its high level of foreign exchange reserves, Singapore had the lowest STFXL/GIR ratio in the region at 2.2 percent in 1990-95 and 2.6 percent in 1996. However, like most of the SEACEN countries, Singapore experienced a decline in export growth in 1996 to 5.8 percent from an average growth rate of 12.2 percent in 1991-95.

Table 1.39
Singapore: Selected External Sector Indicators
(Rates, in %)

Indicators	1990	1991	1992	1993	1994	1995	1990-95 Ave.*	1996
Export growth	n.a.	6.8	7.4	16.0	18.9	12.3	12.2	5.8
Gross international reserves (US$M)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Ratio of short-term foreign exchange liabilities to GIR	2.5	2.6	2.3	2.1	1.7	1.8	2.2	2.6

*Growth rates are averaged over the period 1991-95. Level values are averaged over the period 1990-95.

n.a. – not applicable or no data available

In summary, while some real sector indicators pointed to unfavourable developments, Singapore's macroeconomic fundamentals remained generally healthy in 1996. Although output growth decelerated and the stock market posted a decline in capitalisation, the composite price index recovered from the previous year's drop. Moreover, inflation remained very low. In the monetary sector, indicators pointed to generally prudent monetary policy. Money supply growth was among the lowest in the region, resulting in low M/GIR ratios. On the external side, Singapore's STFXL/GIR ratio was the lowest among the SEACEN countries. However, Singapore's export performance reflected the general slump in the region in 1996.

Korea

Korea's macroeconomic fundamentals indicated an economic downturn in the run-up to the crisis (Table 1.40). Real GDP growth decelerated from 8.9 percent in 1995 and an average of 7.4 percent in 1991-95 to 6.8 percent in 1996. Stock market capitalisation contracted by 16.8 percent in 1996 from an average growth of 10.4 percent in 1991-95. Stock prices likewise plummeted in 1996 by 11.0, after rising by an average of 4.6 percent in the first half of the 1990s. The slump in the stock market started in 1995, when prices dropped by 3.2 percent and capitalisation declined by 6.7 percent. Meanwhile, inflation rose to 4.9 percent in 1996 from 4.5 percent in 1995.

Table 1.40
Korea: Selected Real and Fiscal Sector Indicators
(Rates, in %)

Indicators	1990	1991	1992	1993	1994	1995	1990-95 Ave.*	1996
GDP growth	n.a.	9.2	5.4	5.5	8.3	8.9	7.4	6.8
Inflation rate	n.a.	9.3	6.3	4.8	6.2	4.5	6.2	4.9
Stock market capitalisation (annual % change)	n.a.	-7.5	15.9	33.0	34.2	-6.7	10.4	-16.8
Stock price index (annual % change)	n.a.	-12.0	-10.6	24.0	32.6	-3.2	4.6	-11.0
Fiscal balance/GDP	-0.9	-1.9	-0.7	0.3	0.5	0.4	-0.4	0.3

*Growth rates are averaged over the period 1991-95. Level values are averaged over the period 1990-95.
n.a. – not applicable or no data available

On the fiscal front, however, Korea showed some improvement, as the fiscal balance/GDP ratio turned to positive 0.3 percent in 1996 from an average of negative 0.4 percent in 1990-95.

In the monetary sector, indicators showed mixed trends (Table 1.41). Domestic credit growth was among the lowest in the region in 1991-95, averaging 15.7 percent, but increased to 20.1 percent in 1996, about the same level as the regional average. Korea's DC/GDP ratio, on the other hand, was slightly above the regional average in 1990-95, at 53.9 percent, and increased slightly to 57.5 percent in 1996. Meanwhile, the M/GDP ratio was among the lowest in the SEACEN region at 35.6 percent in 1990-95 and 38.0 percent in 1996. Moreover, Korea had moderate M/GIR ratios, averaging 214.0 percent in 1990-95 and 219.0 percent in 1996, compared to the SEACEN averages of 291.1 percent and 316.9 percent, respectively.

Table 1.41
Korea: Selected Monetary Sector Indicators
(Rates, in %)

Indicators	1990	1991	1992	1993	1994	1995	1990-95 Ave.*	1996
M growth	n.a.	18.6	18.4	18.6	15.6	15.5	17.3	16.2
M/GDP	34.4	33.7	35.2	37.0	36.7	36.3	35.6	38.0
M/GIR	187.0	234.0	221.0	217.0	219.0	208.0	214.0	219.0
Growth of domestic credit	n.a.	22.0	11.7	12.3	18.5	14.1	15.7	20.1
Domestic credit/GDP	54.2	54.6	53.7	53.4	54.3	53.1	53.9	57.5

*Growth rates are averaged over the period 1991-95. Level values are averaged over the period 1990-95.

n.a. – not applicable or no data available

Korea's financial system had a fairly well developed non-banking sub-sector. The banking system accounted for only 32.2 percent of the total assets of the financial system in 1995, although its share increased slightly to 32.9 percent in 1996 (Table 1.42). In terms of asset growth, the banking system lagged behind the financial system. In 1991-95, financial system assets expanded at an average rate of 22.2 percent, the second highest in the region. On the other hand, banking system assets grew at an average rate of only 15.5 percent, the lowest among the SEACEN countries. Even as the growth of the assets of the financial system decelerated to 18.9 percent in 1996, it was still among the highest in the region. Meanwhile, the growth of banking system assets increased to 18.9 percent in 1996, higher than the regional average. Overall, these trends indicate that the growth of financial system assets could be attributed mainly to the expansion of non-banking resources and that the NBFIs played a more prominent role in the Korean financial system relative to banks. Since NBFIs were subject to less stringent monitoring and regulation, if at all, these developments suggest that a large proportion of financial institutions in Korea went unsupervised. These institutions were thus able to take on more risk, and ultimately became the source of weaknesses in the Korean financial system.

Table 1.42
Korea: Selected Financial Sector Indicators
(Rates, in %)

Indicators	1990	1991	1992	1993	1994	1995	1990-95 Ave.*	1996
Growth of assets of financial system	n.a.	24.7	20.8	17.9	27.0	20.8	22.2	18.9
Growth of assets of banking system	n.a.	19.4	14.0	9.7	17.1	17.5	15.5	18.9
Ratio of assets of banking system to total assets of financial system	n.a.	34.4	33.4	31.9	32.2	32.2	33.2	32.9
Non-performing loan ratio of commercial banks (KBs)	8.0	7.0	7.1	7.4	5.8	5.2	6.8	4.1
Capital adequacy ratio of KBs	9.1	8.7	11.2	11.0	10.6	9.3	10.0	9.1

*Growth rates are averaged over the period 1991-95. Level values are averaged over the period 1990-95.
n.a. – not applicable or no data available

Korea's banking system was relatively sound prior to the crisis. Commercial banks complied with the Basle standard for capital adequacy, with average ratios of 10.0 percent in 1990-95 and 9.1 percent in 1996. There was also an improvement in the asset quality of the commercial banking system, with the NPL ratio declining to 4.1 percent in 1996 from 5.2 percent in 1995 and an average of 6.8 percent in 1990-95. However, since, as previously noted, banks comprised less than 35 percent of the financial institutions in Korea, healthy banking system indicators did not suggest a sound financial system.

Weaknesses in Korea's financial sector, such as the more rapid growth of relatively less supervised NBFIs, led to vulnerabilities in the external sector, such as excessive borrowing. Thus, Korea had the highest level of foreign exchange liabilities among the SEACEN countries, with total external debt amounting to US$121.2 billion by end-1995, which rose further to US$164.3 billion at end-1996 (Table 1.43). Moreover, Korea registered the fastest growth of foreign exchange liabilities among the SEACEN countries in 1996, at 29.2 percent. Thailand, the next in line, posted a growth rate of only

39. There were no available data on Korea's foreign exchange liabilities prior to 1994.

9.7 percent.[39] The average growth rate of foreign exchange liabilities in the SEACEN countries in 1996 was 6.3 percent.

Table 1.43
Korea: Selected External Sector Indicators
(Rates, in %)

Indicators	1990	1991	1992	1993	1994	1995	1990-95 Ave*	1996
Current account balance/ GDP	-0.8	-2.8	-1.3	0.3	-1.0	-1.7	1.2	-4.4
Export growth	n.a.	10.5	6.6	7.3	16.8	30.3	14.0	3.7
Total foreign exchange liabilities(FXL)***								
Level (US$M)	n.a.	n.a.	n.a.	n.a.	96,934	121,171	121,171**	164,345
Annual % change	n.a.	n.a.	n.a.	n.a.	n.a.	25.0	n.a.	29.2
Ratio of short-term FXL (STFXL) to total FXL	n.a.	n.a.	n.a.	n.a.	55.4	56.3	55.8	56.6
GIR (US$M)	14,822	13,733	17,154	20,262	25,673	32,712	32,712**	33,237
STFXL/GIR					209.0	218.9	214.0	279.8
Debt service burden	9.7	6.0	6.2	9.1	6.2	5.4	7.1	5.8

* Growth rates are averaged over the period 1991-95. Level values are averaged over the period 1990-95.
** 1995 level
*** Data before 1993 are not available since the compiling method has been changed from the World Bank method to the IMF method.
n.a. – not applicable or no data available

Another worrisome feature of Korea's foreign debt profile was the large proportion of short-term debt to total external debt, at 56.6 percent in 1996. This may be traced largely to the liberalisation of short-term foreign borrowings even as long-term borrowings remained regulated. The rapid expansion of short-term foreign exchange liabilities in Korea led, in turn, to a very high STFXL/GIR ratio of 279.8 percent in 1996, way above the SEACEN average of 90.4 percent.

Weak export performance contributed to Korea's fragile external position. Export growth declined to 3.7 percent in 1996 from an average of 14.0 percent in 1991-95. This translated into larger current account deficits. In 1996, Korea's CAD/GDP ratio rose to 4.4 percent from an average of 1.2 percent in 1990-95. However, Korea had a relatively low debt service burden, at 5.8 percent in 1996, lower than its average of 7.1 percent in 1990-95 and the SEACEN average of 13.3 percent.

In summary, Korea's vulnerability to the Asian crisis came as much from weaknesses in the real sector as from a vulnerable external position. While monetary indicators pointed to generally prudent liquidity management and fiscal indicators showed improving government cash position, the real and external sectors turned up quite disturbing indicators in 1996. In the real sector, there was a slowdown in output growth, a mild increase in inflation, and a sharp drop in stock market capitalisation as well as in the stock price index. On the external side, Korea had the highest level of foreign exchange liabilities among the SEACEN countries in 1996. Moreover, more than half of foreign debt consisted of short-term obligations. Meanwhile, export growth decelerated sharply, resulting in the further deterioration of the current account balance.

Sri Lanka

The Sri Lankan economy experienced a slowdown in 1996 as real GDP growth decelerated to 3.8 percent from 5.5 percent in 1995 and an average of 5.4 percent in 1991-95 (Table 1.44). The downturn was even more pronounced against the acceleration in inflation to 15.9 percent in 1996 from 7.7 percent in 1995 and an average of 10.3 percent in 1991-95. The stock market also showed disturbing trends in 1996. Capitalisation continued to fall, by 7.0 percent, although this was well below the 30.9 percent contraction in 1995. Moreover, the stock price index dropped by 9.0 percent in 1996 compared to an increase of 0.7 percent in 1995 and an average growth rate of 11.5 percent in 1991-95. Meanwhile, the fiscal position deteriorated as the ratio of the fiscal deficit to GDP rose to 7.8 percent in 1996 from 7.0 percent in 1995 and an average of 7.5 percent in 1990-95.

Table 1.44
Sri Lanka: Selected Real and Fiscal Sector Indicators (Rates, in %)

Indicators	1990	1991	1992	1993	1994	1995	1990-95 Ave.*	1996
GDP growth	n.a	4.6	4.3	6.9	5.6	5.5	5.4	3.8
Inflation rate	n.a.	12.2	11.4	11.7	8.4	7.7	10.3	15.9
Stock market capitalisation (annual % change)	n.a.	109.0	-25.0	73.5	14.7	-30.9	16.6	-7.0
Stock price index (annual % change)	n.a.	114.0	117.0	27.0	-61.0	0.7	11.5	-9.0
Fiscal balance/GDP	-7.8	-9.5	-5.4	-6.8	-8.5	-7.0	7.5	-7.8

*Growth rates are averaged over the period 1991-95. Level values are averaged over the period 1990-95.

n.a. – not applicable or no data available

In the monetary sector, indicators were more favourable (Table 1.45). Domestic credit growth dropped in 1996 to 11.4 percent—well below the SEACEN average of 20.4 percent—from 28.7 percent in 1995 and an average of 14.1 percent in 1991-95. Meanwhile, the DC/GDP ratio rose to 42.0 percent in from 33.0 percent in 1995 and an average of 32.7 percent in 1990-95. Nonetheless, Sri Lanka's DC/GDP ratios were significantly lower compared to the SEACEN average DC/GDP ratios of 70-90 percent from 1990 to 1996. Sri Lanka's M/GDP ratio, on the other hand, dropped to 36.0 percent in 1996 from the 1995 level of 38.1 percent, but rose relative to the 1990-95 average of 34.5 percent. Sri Lanka's M/GDP ratios were also low compared to the SEACEN average of 80-95 percent during the reference period. Meanwhile, Sri Lanka's average M/GIR ratio for the first half of the 1990s and in 1996, at 190.7 percent and 183.0 percent, respectively, were below the SEACEN average of 291.1 percent and 316.9 percent, respectively.

Table 1.45
Sri Lanka: Selected Monetary Sector Indicators
(Rates, in %)

Indicators	1990	1991	1992	1993	1994	1995	1990-95 Ave.*	1996
M growth	n.a.	22.1	17.4	23.4	19.7	19.2	20.3	10.3
M/GDP	31.0	32.6	33.4	35.3	36.5	38.1	34.5	36.0
M/GIR	262.7	224.6	196.0	152.0	144.0	165.0	190.7	183.0
Growth of domestic credit	n.a.	10.6	12.7	4.6	15.3	28.7	14.1	11.4
Domestic credit/GDP	36.0	34.0	33.0	30.0	30.0	33.0	32.7	42.0

*Growth rates are averaged over the period 1991-95. Level values are averaged over the period 1990-95

n.a. – not applicable or no data available

Sri Lanka's banking system continued to grow in 1996, with assets expanding by 12.2 percent. However, this was lower than the growth rate of 16.5 percent in 1995 and the 19.4 percent average for 1991-95. Meanwhile, financial system assets rose by 17.0 percent in 1995 and by an average of 19.1 percent in 1991-95.[40] Meanwhile,

40. There were no data available on the growth of the assets of the financial system in Sri Lanka from 1996 onwards. Moreover, Sri Lanka does not have data on NPL ratios.

capital remained adequate to cover risk assets, with the ratio of net worth to risk assets of commercial banks at 8.0 percent, well within the Basle standard, since the latter was adopted by the CBSL in 1993. However, the absence of data on non-performing loans precludes a more thorough assessment of the health of Sri Lanka's commercial banking system.

Table 1.46
Sri Lanka: Selected Financial System Indicators
(Rates, in %)

Indicators	1990	1991	1992	1993	1994	1995	1990-95 Ave.*	1996
Growth of assets of financial system	n.a.	19.0	17.0	24.0	19.0	17.0	19.1	n.a.
Growth of assets of banking system	n.a.	19.7	13.8	32.1	15.8	16.5	19.4	12.2
Capital adequacy ratio of commercial banks	n.a.	n.a.	n.a.	8.0	8.0	8.0	8.0	8.0

*Growth rates are averaged over the period 1991-95. Level values are averaged over the period 1990-95.

n.a. – not applicable or no data available

On the external side, Sri Lanka's external debt profile was relatively bettered compared to most SEACEN economies. Its total foreign exchange liabilities declined to US$8.5 billion in 1996 from US$8.7 billion in 1995 (Table 1.47). Moreover, the ratio of Sri Lanka's short-term foreign exchange liabilities to the total was the lowest among the SEACEN countries during the review period. This translated into low STFXL/GIR ratios, which averaged 37.0 percent during the first half of the 1990s and declined to 35.0 percent in 1996. These ratios were well below the SEACEN averages of 82.3 percent in 1990-95 and 90.4 percent in 1996.

Table 1.47
Sri Lanka: Selected External Sector Indicators
(Rates, in %)

Indicators	1990	1991	1992	1993	1994	1995	1990-95 Ave.*	1996
Current account balance/ GDP	-4.7	-6.9	-5.7	-4.8	-7.4	-5.8	-5.9	-4.9
Export growth	n.a.	3.1	20.0	16.0	11.0	18.0	13.5	7.0
Total foreign exchange liabilities (FXL)								
Level (US$M)	5,598	6,481	6,831	7,601	8,298	8,694	8,694**	8,486
Annual % change	n.a.	15.8	5.4	11.3	9.2	4.8	9.2	-2.4
Ratio of short-term FXL (STFXL) to total FXL	7.1	7.6	8.3	8.4	6.1	6.2	7.3	9.8
GIR (US$M)	856	1156	1439	2124	2874	2902	2902**	2717
Months' worth of imports	3.7	4.4	5.1	6.4	7.2	6.6	5.6	6.0
STFXL/GIR	48.0	41.0	37.0	30.0	31.0	37.0	37.3	35.0
Debt service burden	15.4	15.8	14.6	11.8	11.2	11.8	13.4	14.6

*Growth rates are averaged over the period 1991-95. Level values are averaged over the period 1990-95.
** 1995 level
n.a. – not applicable or no data available

In contrast to most SEACEN countries, Sri Lanka's current account position showed an improvement in 1996. The CAD/GDP ratio declined from 5.8 percent in 1995 and an average of 5.9 percent in 1990-95 to 4.9 percent in 1996, even as Sri Lanka's exports suffered a major setback in 1996, as growth decelerated to 7.0 percent from 18.0 percent in 1995 and an average of 13.5 percent in 1991-95. This translated into a higher debt service burden of 14.6 percent in 1996 compared to 11.8 percent in 1995 and an average of 13.4 percent in 1990-95. Nonetheless, Sri Lanka's debt service burden, compared favourably with the SEACEN averages of 15.8 percent and 13.4 percent in 1990-95 and 1996, respectively.

In summary, Sri Lanka's macroeconomic fundamentals in 1996 indicated an economic slowdown: lower output growth, rising inflation, a continuing stock market slump, and a deteriorating fiscal balance. However, monetary sector indicators were more favourable, with Sri Lanka's DC/GDP, M/GDP and M/GIR ratios generally below the SEACEN averages. Moreover, Sri Lanka's banking and financial systems remained relatively strong, with continuing growth in terms of assets. The commercial banking system also remained healthy, as capital remained adequate to cover risk assets. On the external front, Sri Lanka had the lowest level of external liabilities, which were mostly long-term. These trends were reflected in STFXL/GIR ratios that were well below the SEACEN average. Moreover, Sri Lanka posted an improvement in the current account balance, even as export growth declined and the debt service burden increased.

Taiwan

The Taiwan economy also experienced a slowdown in 1996. Real GDP growth decelerated to 6.1 percent from 6.4 percent in 1995 and an average of 7.1 percent in 1991-95 (Table 1.48). However, in contrast to some SEACEN countries, the output slowdown was accompanied by a decline in inflation, from 3.7 percent in 1995 and an average of 3.8 percent in 1991-95 to 3.1 percent in 1996. Meanwhile, the stock market posted a substantial increase in capitalisation of 42.2 percent in 1996, after contracting by 21.6 percent in 1995 and posting an average growth rate of only 20.3 percent in 1991-95. The stock price index likewise rose by 7.1 percent in 1996 after contracting by 10.8 percent in 1995 and at an average rate of 0.8 percent in 1991-95.

Table 1.48
Taiwan: Selected Real and Fiscal Sector Indicators
(Rates, in %)

Indicators	1990	1991	1992	1993	1994	1995	1990-95 Ave.*	1996
GDP growth	n.a.	7.6	7.5	7.0	7.1	6.4	7.1	6.1
Inflation rate	n.a.	3.7	4.5	3.0	4.1	3.7	3.8	3.1
Stock market capitalisation (annual % change)	n.a.	19.1	-14.8	92.8	26.1	-21.6	20.3	42.2
Stock price index (annual % change)	n.a.	-27.5	-13.1	-2.0	49.4	-10.8	-0.8	7.1
Fiscal balance/GDP	-0.1	-4.7	-5.7	-5.8	-5.1	-5.1	-5.3	-3.2

*Growth rates are averaged over the period 1991-95. Level values are averaged over the period 1990-95.
n.a. – not applicable or no data available

Meanwhile, there was some strengthening in the fiscal position, with the ratio of the fiscal deficit to GDP declining to 3.2 percent in 1996 from an average of 5.5 percent in the first half of the 1990s.

In the monetary sector, domestic credit growth decelerated to 8.9 percent in 1996, the lowest among the SEACEN countries, from an average of 20.0 percent in 1991-95, among the highest in the region during the period (Table 1.49). However, Taiwan's DC/GDP ratio in 1996 was the highest in the region, at 164.4 percent, which was also higher than the country's average of 138.5 percent for 1990-95. Meanwhile, money supply growth fell significantly to 9.2 percent in 1996 from an average rate of 15.6 percent in 1991-95. These figures compared favourably with the SEACEN average of 16.1 percent in 1991-95 and 14.1 percent in 1996. However, Taiwan had very high M/GDP ratios of 155.5 percent in 1990-95 and 178.0 percent in 1996. The ratios for the SEACEN countries averaged only 82.2 percent in 1990-95 and 94.6 percent in 1996. Moreover, Taiwan's average M/GIR ratio of 426.8 percent was the highest the SEACEN countries in 1990-95, and its ratio of 582.0 percent was also the highest in 1996.

Table 1.49
Taiwan: Selected Monetary Sector Indicators
(Rates, in %)

Indicators	1990	1991	1992	1993	1994	1995	1990-95 Ave.*	1996
M growth	n.a.	16.3	19.9	16.4	16.3	11.6	15.6	9.2
M/GDP	134.0	140.0	151.0	160.0	171.0	177.0	155.5	178.0
M/GIR	331.0	365.0	409.0	454.0	494.0	508.0	426.8	582.0
Growth of domestic credit	n.a.	26.6	28.9	20.6	15.4	11.2	20.0	8.9
Domestic credit/GDP	103.8	117.7	136.7	149.8	159.2	163.8	138.5	164.4

*Growth rates are averaged over the period 1991-95. Level values are averaged over the period 1990-95.
n.a. – not applicable or no data available

Taiwan's financial system experienced slow asset growth in 1991-95, at 14.5 percent, which decelerated further to 7.2 percent in 1996 (Table 1.50). These growth rates were well below the SEACEN averages of 19.8 percent in 1991-95 and 18.0 percent in 1996. Moreover, the growth of assets of Taiwan's banking system was among the lowest in the region at 15.7 percent in 1991-95, and the lowest at 6.2 percent in 1996. Nonetheless, the Taiwan commercial banking system had very sound asset quality, with the lowest NPL ratio in the region at 1.4 percent in 1990-95, and among the lowest at 3.6 percent in 1996. Since the banking system accounted for more than 80 percent of the total resources of the Taiwan financial system, this means that financial institutions in Taiwan generally had good asset quality. Moreover, Taiwan's commercial banking system complied with the Basle standard for capital adequacy of 8.0 percent.

Table 1.50
Taiwan: Selected Financial System Indicators
(Rates, in %)

Indicators	1990	1991	1992	1993	1994	1995	1990-95 Ave.*	1996
Growth of assets of financial system	n.a.	19.7	16.6	14.4	13.4	8.8	14.5	7.2
Growth of assets of banking system	n.a.	19.2	20.0	15.9	15.4	8.4	15.7	6.2
Ratio of assets of banking system to total assets of financial system	79.0	78.6	81.0	82.0	83.4	83.2	81.2	82.4
Non-performing loan ratio of commercial banks (KBs)	0.9	1.0	0.8	1.1	1.8	2.8	1.4	3.1
Capital adequacy ratio of KBs	n.a.	n.a.	n.a.	18.1	14.5	13.6	15.4	12.9

*Growth rates are averaged over the period 1991-95. Level values are averaged over the period 1990-95.
n.a. – not applicable or data not available

Taiwan had a relatively healthier external position relative to other SEACEN countries (Table 1.51). It had the second-lowest level of foreign exchange liabilities among the SEACEN countries in 1995, at US$ 24.0 billion, which declined to US$22.4 billion in 1996. Against this backdrop, Taiwan's high ratios of short-term foreign exchange liabilities to the total—at 90.7 percent in 1995 and 86.0 percent in 1996—were not much cause for concern. Moreover, Taiwan's STFXL/GIR ratios were among the lowest in the SEACEN region at 22.9 percent in 1995 and 22.2 percent in 1996.

Table 1.51
Taiwan: Selected External Sector Indicators
(Rates, in %)

Indicators	1990	1991	1992	1993	1994	1995	1990-95 Ave.*	1996
Current account balance/ GDP	6.8	7.0	4.0	3.2	2.7	2.1	4.3	4.0
Export growth	n.a.	13.0	6.9	4.5	9.4	20.0	9.2	7.7
Total foreign exchange liabilities (FXL)								
Level (US$M)	9,924	12,649	14,614	16,193	19,702	24,043	24,043**	22,383
Annual % change	n.a.	27.5	15.5	10.8	21.7	22.0	19.4	-7.0
Ratio of short-term FXL (STFXL) to total FXL	92.5	93.6	93.8	94.5	92.1	90.7	92.9	86.0
GIR (US$M)	69,481	75,683	85,254	84,645	89,368	95,144	95,144**	86,584
Months' worth of imports	15.9	15.1	15.0	13.9	13.3	11.7	14.1	10.6
STFXL/GIR	13.2	15.6	16.1	18.1	20.3	22.9	17.7	22.2
Debt service burden	50.0	30.0	30.0	10.0	10.0	10.0	23.3	11.0

* Growth rates are averaged over the period 1991-95. Level values are averaged over the period 1990-95.
** 1995 level
n.a. – not applicable or no data available

Taiwan also had long-running current account surpluses. Moreover, while there had been a steady decline in the ratio of the current account surplus to GDP since 1991, the situation improved in 1996. The current account balance to GDP ratio rose to 4.1 percent in 1996 from 2.1 percent in 1995. This developed even as export growth decelerated to 7.7 percent in 1996 from 20.1 percent in 1995.

Thus, in contrast to the experience of most of the SEACEN countries that were severely hit by the crisis, the output slowdown in Taiwan in 1996 was neutralised by the recovery of the stock market. Moreover, Taiwan had a relatively healthy financial system, which was made up mostly of banks with good asset quality and adequate capitalisation. On the external side, Taiwan was also in a relatively better position compared to its SEACEN neighbours. It had the second-lowest level of foreign exchange liabilities and low STFXL/GIR ratios. Taiwan also had long-running current account surpluses that precluded the need for foreign capital inflows, the reversal of which triggered the twin crises.

Thailand

In Thailand, macroeconomic fundamentals in 1996 pointed to a brewing crisis. Real GDP growth dropped to 5.5 percent from 8.8 percent in 1995 and an average of 8.6 percent in 1991-95 (Table 1.52). Inflation rose from 5.8 percent in 1995 and an average of 4.8 percent in 1991-95 to 5.9 percent in 1996. Moreover, stock market capitalisation plunged by 28.2 percent in 1996 compared to the growth of 8.0 pèrcent in 1995 and the average increase of 24.8 percent in 1991-95. Meanwhile, the stock price index, which dropped by 6.6 percent in 1995, continued its descent, plummeting by 35.1 percent in 1996.

Table 1.52
Thailand: Selected Real and Fiscal Sector Indicators
(Rates, in %)

Indicators	1990	1991	1992	1993	1994	1995	1990-95 Ave.*	1996
GDP growth	n.a.	8.6	8.1	8.4	8.9	8.8	8.6	5.5
Inflation rate	n.a.	5.7	4.1	3.3	5.0	5.8	4.8	5.9
Stock market capitalisation (annual % change)	n.a.	46.2	65.5	123.9	-0.7	8.0	24.8	-28.2
Stock price index (annual % change)	n.a.	-6.9	9.9	28.6	39.5	-6.6	11.4	-35.1
Fiscal balance/GDP	4.9	4.0	2.4	1.7	2.8	3.2	3.2	0.7

*Growth rates are averaged over the period 1991-95. Level values are averaged over the period 1990-95.
n.a. – not applicable or no data available

Thailand's fiscal position also showed some deterioration. From an average fiscal balance/GDP ratio of 3.2 percent in 1990-95 and 3.2 percent in 1995, the fiscal surplus shrank to 0.7 of GDP in 1996.

Like Indonesia, Thailand's monetary and external sector indicators also reflected the country's increasing vulnerability to a currency and banking crisis. Due to the rapid growth of Thailand's financial system under its vigorous financial liberalisation programme, domestic credit grew the fastest among the SEACEN countries, at an average rate of 22.3 percent, in 1991-95 (Table 1.53). While credit expansion slowed to 13.7 percent in 1996, Thailand's DC/GDP ratio remained significantly above the regional average, at 112.2 percent, from an average of 86.5 percent in 1990-95. These ratios were much higher than the regional averages of 68.7 percent in 1996 and 53.7 percent in 1990-95.

Table 1.53
Thailand: Selected Monetary Sector Indicators
(Rates, in %)

Indicators	1990	1991	1992	1993	1994	1995	1990-95 Ave.*	1996
M growth	n.a.	20.3	18.6	15.8	13.1	17.3	16.8	12.6
M/GDP	70.0	73.1	74.8	79.1	77.9	79.0	75.7	81.0
M/GIR	416.2	390.6	384.3	380.0	364.7	361.9	383.0	376.6
Growth of domestic credit	n.a.	22.6	17.8	19.9	24.3	27.2	22.3	13.7
Domestic credit/GDP	77.1	79.5	83.5	90.4	91.3	97.2	86.5	112.2

*Growth rates are averaged over the period 1991-95. Level values are averaged over the period 1990-95.
n.a. – not applicable or no data available

Despite the strong credit expansion, money supply growth in Thailand was among the lowest in the SEACEN region, averaging 16.8 percent in 1991-95, and declining to 12.6 percent in 1996. However, Thailand had high M/GDP ratios of 75.7 percent in 1990-95 and 81.0 percent in 1996. Moreover, Thailand's M/GIR ratios were among the highest in the region at 383.0 percent in 1990-95 and 376.6 percent in 1996. Thus, the Bank of Thailand had insufficient reserves to meet the rise in demand for foreign exchange as investors shifted their portfolios from local- to foreign-currency denominated assets at the onset of the crisis.

Thailand's financial sector indicators also pointed to several weaknesses (Table 1.54). In 1996, the assets of the financial system grew by only 14.2 percent compared to an average growth rate of 24.5 percent in 1991-95. These developments reflected trends in the banking system, where the growth of assets decelerated to 12.2 percent in 1996, from an average of 22.9 percent in 1991-95. Apart from the slowdown in asset growth, the Thai banking system also posted deterioration in asset quality. The NPL ratio of commercial banks rose to 9.4 percent in 1996 from 7.4 percent in 1995 and an average of 7.8 percent in 1990-95. However, there was an improvement in banks' compliance with the Basle standard on capital adequacy, as the ratio of net worth to risk assets rose to 10.8 percent in 1996 from 9.4 percent in 1995 and an average of 8.8 percent in 1990-95.

Table 1.54
Thailand: Selected Financial System Indicators
(Rates, in %)

Indicators	1990	1991	1992	1993	1994	995	1990-95 Ave.*	1996
Growth of assets of financial system	n.a.	20.5	20.7	27.2	27.6	26.9	24.5	14.2
Growth of assets of banking system	n.a.	20.0	17.7	25.5	26.9	24.6	22.9	12.2
Ratio of assets of banking system to total assets of financial system	70.1	69.8	68.1	67.1	66.7	65.5	67.9	64.4
Non-performing loan ratio of commercial banks (KBs)	n.a.	7.7	7.8	8.6	7.8	7.4	7.8	9.4
Capital adequacy ratio of KBs	8.9	8.9	9.0	7.9	8.7	9.4	8.8	10.8

*Growth rates are averaged over the period 1991-95. Level values are averaged over the period 1990-95.
n.a. – not applicable or no data available

It should be noted that, in Thailand, non-bank financial institutions (NBFIs) accounted for a larger portion of financial system assets relative to banks. During the first half of the 1990s, bank assets made up only 67.9 percent of the total assets of the financial system. The ratio fell to 64.4 percent in 1996. This reflected the increasing prominence of NBFIs in the Thai financial system following government efforts to develop Thailand into a regional financial center. The growing importance of NBFIs in Thailand indicated the narrowing reach of the supervisory authorities considering that NBFIs were subjected to less stringent monitoring and supervisory processes by the authorities.

The rapid expansion of financial activities in the wake of liberalisation also led to weaknesses in Thailand's external position. Increased external borrowing by both banks and NBFIs led to the rapid growth of foreign exchange liabilities, at an average rate of 23.0 percent in 1991-95 (Table 1.55). By end-1995, foreign exchange liabilities had reached US$82.6 billion, the third highest among the SEACEN countries. This increased further to US$90.5 billion in 1996. Around 43.0 percent of these liabilities consisted of short-term debt, which bode ill for Thailand's international liquidity position. Moreover, among the SEACEN countries, Thailand had the highest ratio of short-term foreign exchange liabilities to foreign exchange reserves. During the period 1990-95, the ratio for Thailand was 209.8 percent compared to the SEACEN average of only 82.3 percent. The ratio increased to 233.8 percent in 1996, even as the SEACEN average increased to only 90.4 percent. These factors made Thailand extremely vulnerable to capital flow reversals in the run-up to the crisis. In the face of capital flight, it was left with meager foreign exchange resources to settle its maturing short-term external debt.

Table 1.55
Thailand: Selected External Sector Indicators
(Rates, in %)

Indicators	1990	1991	1992	1993	1994	1995	1990-95 Ave.*	1996
Current account balance/ GDP	-8.3	-7.5	-5.5	-4.9	-5.4	-7.8	-6.6	-7.9
Export growth	n.a.	23.8	13.8	13.4	22.1	24.8	18.9	-1.9
Total foreign exchange liabilities (US$M)								
Level	29,308	37,878	43,621	52,107	64,866	82,568	82,568*	90,536
Annual % change	n.a.	29.2	15.2	19.5	24.5	27.3	23.0	9.7
Ratio of short-term FXL (STFXL) to total FXL	35.5	40.6	43.4	43.4	45.0	49.8	43.0	41.5
Gross international reserves (GIR) (US$M)	13,000	16,700	20,200	23,800	28,200	33,700	33,700*	38,700
Months' worth of imports	5.2	5.8	6.3	6.8	6.8	6.3	6.2	6.6
STFXL/GIR	205.3	205.7	205.9	204.8	214.2	223.0	209.8	233.8
Debt service burden	10.8	10.5	11.2	11.2	11.6	11.4	11.1	12.3

* Growth rates are averaged over the period 1991-95. Level values are averaged over the period 1990-95.
** 1995 level
n.a. – not applicable or no data available

Thailand also had the highest CAD/GDP ratio among the SEACEN countries in 1990-95, averaging 6.6 percent. Its CAD/GDP ratio increased slightly to 7.9 percent in 1996 from 7.8 percent in 1995. The deterioration in the current account position reflected Thailand's weakening export performance, with exports contracting by 1.9 percent in 1996 from an average growth of 18.9 percent in 1991-95.

Thus, indicators on almost all fronts indicated the strong likelihood of a crisis in Thailand. In the real sector, the slowdown in output growth was accompanied by a rise in inflation and a stock market slump. The fiscal balance also registered a significant weakening. On the monetary side, rapid credit expansion resulted in high DC/GDP, M/GDP and M/GIR ratios. Moreover, the financial system experienced a slowdown in asset growth, while the commercial banking system posted deterioration in asset quality. The high percentage of NBFIs in the Thai financial system also suggested that a large portion of financial institutions were relatively not well supervised. In the external sector, Thailand had among the highest levels of external liabilities in the SEACEN region, the highest ratio of short-term external liabilities to total foreign exchange liabilities, the highest STFXL/GIR ratio, and the highest CAD/GDP ratio.

5.2.3 Comparison of macroeconomic developments in the SEACEN countries prior to the crisis

The foregoing analysis reveals major differences in the macroecono-mic fundamentals of the SEACEN economies prior to the crisis. These differences are all the more striking considering that, in 1996, some of the worse-hit economies continued to have rather sound fundamentals, while some of the less affected countries showed poorer macroeconomic performance. For instance, while there was a decline in real output growth in three of the worse-hit economies (that is, Indonesia, Korea and Thailand), Malaysia continued to post strong real GDP growth of 10.0 percent—the highest among the SEACEN countries—in 1996.[41] Moreover, while the Indonesian

41. Indonesia, Malaysia, Korea and Thailand are considered as the worse-hit SEACEN economies on account of the sharp contraction of real output in these economies, as the crisis turned full course in 1998, of 13.2 percent, 7.5 percent, 5.8 percent and 8.0 percent, respectively. Moreover, in these countries, there was a need to put up restructuring institutions to help restore order in the financial system. On the other hand, real GDP contracted by only 0.5 percent in the Philippines, while it continued to expand in Singapore, Sri Lanka and Taiwan by 1.5 percent, 4.7 percent and 4.8 percent, respectively, in 1998.

economy began to slow down in 1996, real output growth continued to be strong at 7.8 percent. On the other hand, Korea and Thailand posted a sharp drop in real output growth in 1996. These two countries also experienced stock market slumps and higher inflation in 1996. In the case of Thailand, there was also deterioration in the fiscal position, in contrast to the other three worse hit countries which had relatively healthier fiscal balances in 1996 compared to previous years. In the external sector, Malaysia posted an improvement in the current account balance as a ratio to GDP, while Indonesia and Korea (the latter, in particular) recorded deterioration. Meanwhile, Thailand continued to record the highest current account deficits relative to GDP. Thus, the countries that were severely hit by the crisis had quite divergent macroeconomic fundamentals.

The same differences can be observed in the fundamentals of the less affected SEACEN economies—that is, the Philippines, Singapore, Sri Lanka and Taiwan. Reaping the benefits of the earlier broad based macroeconomic adjustments, the Philippines was already on the path of higher real GDP growth in 1996, whereas the other three countries experienced a deceleration in output. In terms of price stability, Singapore and Taiwan recorded lower inflation while the Philippines, and Sri Lanka, in particular, posted higher inflation in 1996. Meanwhile, there was a weakening in Singapore's stock market performance, while the other three countries posted improvements.

The foregoing considerations suggest that the crisis cannot be traced solely to macroeconomic fundamentals. Vulnerabilities in the financial systems of the worse hit countries also contributed significantly to the regional turmoil. Financial fragility, in turn, arose from the failure of the financial system to efficiently intermediate funds, as may be gleaned not only from unhealthy financial sector indicators but also from unfavourable monetary and external sector indicators in the worse-hit economies.

In Indonesia, for instance, the high NPL ratios of the commercial banking system may be traced to excessive credit expansion, which resulted in high DC/GDP ratios. Money supply also grew rapidly, which led to high M/GDP and M/GIR ratios. As indicated in the literature on early warning signals, high DC/GDP ratios reflect rapid credit expansion, which may result in the accumulation of bad loans, while high M/GDP and M/GIR ratios indicate high money supply levels that may feed speculative activity. On the external side, Indonesia had the second-highest level of foreign exchange liabilities, most of which was short-term. The rapid build-up of short-term foreign exchange liabilities may also be traced to the excessive foreign borrowing activities of financial institutions in Indonesia.

In the case of Korea, while monetary indicators in 1996 pointed to generally prudent monetary management, financial and external sector indicators were a cause for concern. Among the SEACEN countries, Korea had the lowest proportion of banks in the financial system, at around 32 percent. This suggests that most of the financial institutions in Korea were not well supervised considering that NBFIs were normally subject to less stringent regulatory and supervisory processes compared to banks. On the external front, Korea had the highest level of foreign exchange liabilities among the SEACEN countries in 1996, with more than half of foreign debt consisting of short-term obligations. Thus, the country had high STXL/GIR ratios.

In Thailand, monetary and external sector indicators both pointed to vulnerabilities. Rapid credit expansion resulted in high DC/GDP, M/GDP and M/GIR ratios in 1996. Moreover, the financial system experienced a slowdown in asset growth, while the commercial banking system posted deterioration in asset quality. The high percentage of NBFIs in the Thai financial system also suggested that a large portion of financial institutions were relatively not well supervised. In the external sector, Thailand had among the highest levels of external liabilities in the SEACEN region, the highest ratio of short-term external liabilities to total foreign exchange liabilities, the highest STFXL/GIR ratio, and, as already mentioned, the highest CAD/GDP ratio.

As for Malaysia, monetary sector indicators also pointed to some areas of concern, such as high DC/GDP, M/GDP and M/GIR ratios, prior to the crisis. However, Malaysia's banking and financial systems continued to grow. Moreover, there was a significant improvement in the asset quality and capitalisation of the commercial banking system. External sector indicators were also generally favourable: a low debt service burden and a STFXL/GIR ratio that was among the lowest in the region. As in the case of most SEACEN economies, however, Malaysia experienced weakening exports, which led to the deterioration of the current account position in 1996. Nonetheless, in terms of overall economic performance, Malaysia seems to be the odd one out among the severely hit economies, as it had generally healthy indicators in all sectors. Offhand, this suggests that the crisis in Malaysia could be due mainly to the "contagion effect".

In contrast to the worse-hit economies, the Philippines, Singapore, Sri Lanka and Taiwan had relatively healthier monetary and external indicators. The Philippines, for instance, had DC/GNP, M/GDP and M/GIR ratios that were among the lowest in the region, despite rapid credit expansion prior to the crisis. The Philippine banking system also continued to grow, while the quality of assets and capital adequacy of commercial banks continued to improve. Since the banking system accounted for a large portion of financial system assets, the healthy banking system translated into a sound financial system. On the external side, the Philippines had the second-lowest level of foreign exchange liabilities (which was mostly long-term), declining debt service burden, low ratio of short-term foreign exchange liabilities to foreign exchange reserves, and, in contrast to the SEACEN countries, strong export growth.

In the case of Singapore, monetary sector indicators pointed to prudent monetary management. Money supply growth was among the lowest in the region, resulting in low M/GIR ratios. On the external side, Singapore's STFXL/GIR ratio was the lowest among the SEACEN countries

Sri Lanka also had favourable monetary sector indicators, with DC/GDP, M/GDP and M/GIR ratios that were generally below the SEACEN average. Moreover, Sri Lanka's banking and financial systems remained relatively strong, with continuing growth in terms of assets. The commercial banking system also remained healthy, as capital remained adequate to cover risk assets. On the external front, Sri Lanka had the lowest level of external liabilities, which were mostly long-term. These trends were reflected in STFXL/GIR ratios that were well below the SEACEN average.

In the case of Taiwan, the financial system was relatively healthy, which was made up mostly of banks with good asset quality and adequate capitalisation. On the external side, Taiwan had the second-lowest level of foreign exchange liabilities and low STFXL/GIR ratios. Taiwan also had long-running current account surpluses that precluded the need for foreign funds. As noted in some of the country studies, the reversal of these flows was the direct cause of the crisis, particularly in Korea.

5.3 The Link Between the Twin Liberalisations and Twin Crises

The preceding discussion suggests that the twin crises did not originate as much from weak macroeconomic fundamentals as from vulnerabilities in the financial sectors of the worse hit SEACEN economies.[42] These vulnerabilities reflect, to a significant degree, the failure of the financial system to efficiently intermediate the flow of funds, particularly foreign funds, in the domestic financial market.

On the one hand, financial institutions borrowed heavily from abroad, mostly at the short-term end. Foreign borrowing was facilitated by the liberalisation of the capital account and encouraged by the virtual absence of exchange rate risk (as most of the liberalising countries continued to have pegged or managed floating exchange rate systems after liberalisation).

On the other hand, these financial institutions lent excessively in the domestic financial market. Rapid domestic credit expansion was fueled by the inflow of foreign funds due to the liberalisation of the capital account, and by the increased investment and financing opportunities provided by the deregulation of the domestic financial sector.

42. As earlier noted, Malaysia seems to be an exception among the worse-hit SEACEN economies. Apart from having generally robust macroeconomic fundamentals in 1996, it also had a fairly stable financial sector, with a sound banking system, as indicated by the improving asset quality and adequate capital adequacy ratios of its commercial banks. The ratio of Malaysia's short-term foreign exchange liabilities to its gross international reserves was also among the lowest in the region.

Meanwhile, the increase in local-currency lending using foreign borrowings—as domestic financial institutions sought to exploit high interest rate differentials—gave rise to currency mismatches. Since foreign borrowings were mostly short-term while some domestic loans were long-term, the rapid growth of domestic credit also resulted in maturity mismatches.[43] When the currency crisis struck, the sudden depreciation of the currencies of the affected economies increased the value of foreign borrowings in local-currency terms, while the value of local-currency loans covered by these borrowings remained the same. Financial institutions thus found it extremely difficult to meet their maturing short-term foreign obligations, not only because of the now higher local-currency value of these obligations, but also because a substantial portion of the proceeds from these mostly short-term foreign borrowings had been channeled to domestic loans that were yet to mature.

Due to underdeveloped capital markets in the affected SEACEN economies, a significant portion of domestic credit was also channeled to the property and equities markets, causing asset inflation. As earlier noted, the overpricing of assets was sustained in part by a circular process in which the proliferation of risky lending drove up the prices of risky assets, which were used as loan collateral, and thus provided a temporary boost to the financial condition of both banks and NBFIs. When the bubble burst, however, asset prices plunged and led to insolvency. Imperiled financial institutions were eventually forced to fold up, which led to a contraction of credit, further asset deflation and a deeper financial crisis.

The foregoing discussion bolsters the widely held view that weaknesses in the financial system were the root cause of the twin crises in Asia. These weaknesses have been attributed to the liberalised financial environment created by the opening of the capital account and the deregulation of the domestic financial sector. However, this explanation begs the question of why the financial systems of the other SEACEN countries—the Philippines, Singapore, Sri Lanka and Taiwan—managed to remain afloat amidst the re-

43. In the case of Korea, for instance, local-currency loans were used to finance mainly the long-gestating projects of the *chaebols*.

gional financial turmoil considering that these countries also implemented the twin liberalisations.

As noted in the Conceptual Framework, the success of the liberalisation process depends to a large extent on the fulfillment of certain conditions prior to and during the implementation of reforms. In particular, the liberalisation of the domestic financial sector and the capital account should be undertaken within an integrated and comprehensive framework that takes the following considerations into account:

1. Proper sequencing of reforms, with the deregulation of the domestic financial sector generally occurring before the opening of the capital account;
2. Proper pacing of reforms;
3. An effective regulatory and supervisory framework;
4. Other structural reforms, particularly the development of the domestic capital market; and
5. An appropriate mix of macroeconomic policies.

The following discussion analyses the twin liberalisation programmes in the SEACEN economies in light of these "conditions" for successful liberalisation.

5.3.1 Sequencing of reforms

In some of the worse-hit SEACEN economies, capital account liberalisation was undertaken either simultaneously with, or earlier than, the deregulation of the domestic financial sector. In Thailand, for instance, the programme to liberalise the capital account (which began with the easing of rules on repatriation) and the process of deregulating the financial sector (which began with the lifting of interest rate ceilings) were both initiated in 1989. Further measures to free up the capital account proceeded almost in pace with reforms in the domestic financial sector. Thus, the financial system was not given sufficient time to develop its capability in managing the increased volume and complexity of financial transactions that came with the liberalisation of the capital account.

The same was true for Indonesia, where repatriation was liberalised earlier than the deregulation of interest rates. Subsequent measures to free up the external financial account proceeded alongside efforts to liberalise the domestic financial sector.

In Korea, reforms in external and domestic financial transactions also proceeded almost simultaneously. For instance, interest rate deregulation was accompanied by initial measures to liberalise portfolio and direct investment flows in 1981. Moreover, specific reforms in the domestic financial sector and the capital account were not properly sequenced. With regard to financial sector reforms, Korea deregulated interest rates of NBFIs—which included merchant banking corporations—earlier than those of banks. This situation created incentives for NBFIs to handle innovative financial products to the disadvantage of banks, as reflected in the faster growth of commercial paper (CP) issuances compared to bank loans. Moreover, beginning 1991, NBFIs were allowed to engage in capital account transactions, thus increasing their access to overseas funds and their exposure to foreign currency loans.

The wider scope for market activity of NBFIs led to their rapid growth relative to banks. Since NBFIs were engaged mainly in short-term intermediation, this situation led to increased reliance on short-term funds, and the consequent build-up of short-term foreign borrowing. Meanwhile, borrowed overseas funds were lent in the domestic market to finance mainly the long-gestating projects of *chaebols*. This gave rise to a currency mismatch, as well as a maturity mismatch, since long-term domestic assets were used to cover short-term foreign liabilities.

The relatively faster growth of NBFIs vis-à-vis banks also had an adverse impact on the degree and quality of regulatory oversight in the Korean financial system since NBFIs were subject to less stringent regulation and supervision compared to banks. The problem of weak regulatory oversight over NBFIs was compounded by the fact that most of the NBFIs were owned by *chaebols*. This arrangement increased risky related party lending and aggravated the moral hazard problem.

As regards capital account transactions, Korea liberalised short-term borrowing more rapidly relative to long-term borrowing. While long-term borrowings, both of firms and financial institutions, were restricted in terms of volume, short-term borrowings of financial institutions were not regulated, and those of firms were made possible in the form of short-term trade credits. This led to the rapid build-up of short-term external debt. Consequently, Korea had the highest level of short-term foreign exchange liabilities in the SEACEN region.

Meanwhile, in Malaysia, the liberalisation of domestic and international financial transactions proceeded in an orderly manner. In fact, Malaysia was among the first in the SEACEN group to liberalise its domestic financial sector. Initial steps to deregulate interest rates were taken in 1971. However, some interest rate controls were re-instituted in 1973, owing to the sudden spike in interest rates in the aftermath of deregulation. Thus, interest rate deregulation lasted from 1971 to 1991. The deregulation of portfolio management and credit allocation, which started in 1987, was also disrupted when controls were introduced in 1993. These episodes of policy reversals or backtracking could have impacted the effectiveness of the reform programme in Malaysia.

The foregoing experiences differ from the liberalisation process in countries that were less severely hit by the twin crisis. A case in point is the experience of Taiwan. In general, the liberalisation of Taiwan's capital account and domestic financial sector proceeded in an orderly manner, with very little backtracking. In 1990, interest rates and the exchange rate were fully liberalised. Moreover, the establishment of domestic and foreign bank branches was allowed and the business scope of banks was expanded. The money and capital markets had also become broader and deeper, while the offshore banking and foreign exchange markets were developed with the aim of developing Taiwan into a regional financial centre. Thus, when controls on capital inflows and outflows were lifted in subsequent years, the domestic financial sector had been prepared for the more competitive and complex financial environment that would arise from such liberalisation of external transactions.

It should be noted that Taiwan followed the integrated approach to liberalisation not only with regard to the sequencing of domestic and external financial transactions but also the sequencing of specific reforms in the capital account. Thus, long-term transactions were liberalised ahead of short-term accounts (primarily portfolio investment and bank and non-bank private investment). Specific short-term external accounts were also liberalised in sequential order.

In case of the Philippines, the implementation of the twin liberalisations also proceeded in an orderly manner. The liberalisation of the domestic financial sector consisted of basically two stages: (a) interest rate deregulation and the introduction of universal banking in the early 1980s, and (b) more major reforms starting in the late 1980s. In light of the adverse impact of the first batch of reforms on the financial system and on the economy as a whole, the second batch of financial reforms placed a strong emphasis on measures to strengthen the financial system. Reforms included a sustained and vigorous capital build-up programme and incentives for bank mergers and consolidations, as well as measures to improve prudential regulation and supervision. Thus, when the capital account was liberalised in 1993, over a decade after the introduction of the first reforms in the domestic financial sector, the latter had been strengthened and developed and was thus prepared to meet the challenges presented by increased global financial integration.

In the case of Singapore, the thrust toward liberalisation had been there from the outset and the government's commitment to the liberalisation programme was evident. Reforms were undertaken in an orderly manner and within a short period of time. In 1975, the bank cartel on fixed interest rates was abolished. Moreover, the practice of maintaining hidden reserves was discontinued and stringent rules on reporting were enforced. Finally, the liberalisation of external transactions was completed in 1978, when foreign exchange controls were abolished completely and residents were allowed to borrow and lend in all currencies as well as deal freely in foreign exchange.

5.3.2 *Pacing of reforms*

Countries that were severely affected by the crisis followed either a generally too rapid or too slow pace of liberalisation. Thailand, for instance, was the last among the SEACEN countries to undertake the twin liberalisations. However, the liberalisation programme proceeded very rapidly, in line with the Thai government's goal of establishing Bangkok as a regional financial centre. This programme was embodied in the Financial System Development Plan (FSDP), which was implemented in 1990.

The FSDP, which was mapped out in stages, gave the impression of a cautious and gradual approach to liberalisation. However, it turned out to be a rather aggressive liberalisation strategy that sought to undertake reforms in many areas at the same time. The first phase, which was implemented in a period of only three years (1990-1992) encompassed four major areas: financial system deregulation; development of the capital market and financial instruments and facilities; improvement of the supervision and examination of financial institutions; and development of the payment system. Meanwhile, the second phase (1993-1995) aimed to mobilise domestic savings and develop Thailand into a regional financial centre. During this stage, financial reform measures were introduced parallel to reforms in other sectors, including reforms in the fiscal and industrial sectors and price deregulation. Thus, three years of initial deregulation measures were followed immediately by major reforms in other areas, including those aimed at transforming Thailand into a regional financial centre.

This hurried approach to liberalisation appears to have failed to consider the ability of agents in the economy to prepare for and adapt to the first batch of reforms. Thus, when Thailand proceeded with the next stage of the FSDP in 1996, some adverse effects of the fast pace of the earlier deregulation episode on the economy were already manifested, such as rapid credit expansion and the build-up of foreign exchange liabilities. The liberalisation process in Thailand led to the rapid growth of credit and foreign borrowing because it encouraged the growth of inadequately supervised and ill-regulated NBFIs, which engaged excessively in foreign borrowing and local-currency lending. In particular, the establishment of the BIBFs in 1993 attracted massive and volatile capital inflows.

Compared to Thailand, Indonesia implemented capital account and domestic financial sector liberalisation over a relatively longer period. However, individual components of the liberalisation programme were undertaken within a short period of time, among them: basically one-shot interest rate deregulation in 1983; a sharp decrease in reserve requirement from 15 percent to 2 percent in 1988; and the easing of entry regulations for financial institutions also in 1988. While this rapid pace of liberalisation did not exert any immediate adverse impact on the Indonesian economy, compared to the experience of Thailand, it did result in human resource bottlenecks, both in the financial institutions and the regulatory and supervisory agency, which gradually weakened the financial system. As noted by Demirgüc-Kunt and Detragiache (1998), the immense costs associated with training bank personnel, as well as supervisors, in order to equip them with the skills necessary to evaluate the risks associated with investment instruments that emerge in the deregulated financial environment, may preclude such training and lead to weaknesses in the management and supervision of financial institutions.

It should also be noted that, in Indonesia, the rapid pace of financial deregulation led to the uncontrolled expansion of NBFIs, which exacerbated the problem of excessive credit growth.

In contrast to Indonesia and Thailand, Korea followed a very gradual approach to liberalisation to mitigate the possible side effects of the liberalisation process on what was perceived to be a structurally weak financial sector. This cautious stance enhanced the efficiency of financial intermediation and promoted investment. However, the pace of liberalisation proved too slow and piecemeal. In other words, there was no critical mass of reforms at any one time. For instance, the liberalisation of the entry and exit of financial institutions started in 1982, but the process was stalled and resumed in the late 1980s and continued until the onset of the crisis in 1997. This long-drawn liberalisation programme failed to give a strong signal on the government's commitment to liberalisation and exerted a negligible impact on market players and on the economy as a whole. Moreover, the episodes of backtracking or policy reversals—which were undertaken in response to adverse macroeconomic developments—contributed to the lack of cogency of the reform programme. For instance, the policy on interest rate deregulation was reversed—that is, controls were re-instituted—in 1988 to check the spike in interest rates triggered by the completion of the interest rate deregulation programme that year.

By contrast, the liberalisation process in the less affected economies was relatively well paced. In the case of the Philippines, the reform process also stretched to almost two decades. Initial measures were undertaken in 1981. However, unfavourable macroeconomic conditions in the early 1980s—particularly the BOP crisis in 1983—necessitated the deferment of further reforms. Nonetheless, when the second batch of reforms was undertaken in the late 1980s, there was what can be considered a critical mass of reform measures in various areas of financial sector activity. This provided a signal to the public of the government's commitment to the liberalisation programme. As for the capital account, liberalisation measures were implemented mainly in 1993, and complemented with further reforms in 1996. The clustering of reforms in stages lent cogency to the reform agenda.

As earlier mentioned, the twin liberalisation programme in Singapore was part of a broader framework of developing the country into a major financial centre in Asia. Hence, the liberalisation strategy was kept apace with outward-looking reforms in other sectors. The entire reform process proceeded very smoothly, resulting in the development of a fully functioning, efficient and globally integrated domestic financial market as early as the 1970s.

5.3.3 Regulatory and supervisory framework

In most of the SEACEN countries that were severely affected by the crisis, the liberalisation process was not accompanied by measures to strengthen prudential regulation and supervision. In some cases, the implementation of prudential regulations lagged behind the liberalisation of the domestic financial sector. In others, prudential regulations were imposed but were inadequate. This gave rise to fragile financial institutions that borrowed heavily from abroad—owing to a more open capital account—and lent excessively in the domestic financial market because the infrastructure for risk control was weak.

In Thailand, for instance, prudential regulations were put in place only starting 1992, three years after interest rate deregulation was initiated. In the meantime, financial institutions were allowed to exploit the opportunities offered by the deregulated environment, without considering the risks involved, because the mechanisms for evaluating or controlling risk were either absent or inadequate. Moreover, BIBFs were allowed to operate under a distorted incentive structure that encouraged lending to interrelated entities. The lack of a clearly stated policy on allowing financial institutions to fail also exacerbated the problem of moral hazard. This gave a misleading sense of security to the market players and encouraged greater risk-taking.

In Indonesia, measures to strengthen prudential regulation and supervision were likewise inadequate. The problem was compounded by directed lending to associated parties. Moreover, as earlier mentioned, the rapid deregulation of the domestic financial sector resulted in the shortage of skilled human resources, including those for supervision. These structural weaknesses were aggravated by the lack of an exit mechanism for inefficient banks, and inadequate prudential, transparency and disclosure regulations.

These deficiencies in prudential regulation and supervision in Indonesia and Thailand resulted in the deterioration of asset quality in the commercial banking systems of these countries, as reflected in non-performing loan ratios that were the highest in the SEACEN region in the few years before the crisis.

In the case of Korea, measures to strengthen the regulatory and supervisory framework also lagged behind the liberalisation measures. While major steps to deregulate the domestic financial sector were taken beginning 1980, measures to strengthen the prudential and supervisory framework were implemented only beginning 1991.

Moreover, Korea's framework for prudential regulation and supervision continued to be weak despite the government's efforts to improve it. In the case of banks, capital adequacy requirements and asset classification criteria were more relaxed than the international norms. Other aspects of prudential regulation, such as restrictions on investing in high-risk assets (including securities) and the minimum ratio of current assets, were also inadequate.

There was also an asymmetry in the regulatory frameworks for banks and NBFIs in Korea, as the latter were totally exempt from prudential regulation. For example, the absence of regulations on CP issues by merchant banking corporations, alongside stringent volume controls on corporate bond issues and other forms of financing, resulted in the increased use of CP issues as a means for raising funds. Thus, CP issues, which should have been used to bridge temporary fund shortages, came to be employed as an ordinary means for raising funds, including long-term funds. These factors contributed to the more rapid development of NBFIs relative to banks, the build-up of short-term external debt, and excessive lending to related parties, since NBFIs were owned mostly by chaebols.

As noted earlier, while Korea had low NPL ratios, this did not indicate a healthy financial system because NPLs reflect the asset quality only of the banking sector, which accounted for a small portion of the financial system in Korea. Since NBFIs were relatively less monitored and regulated compared to banks, these institutions were able to take on more risk, and ultimately became the source of vulnerabilities in the Korean financial system.

Meanwhile, the SEACEN countries that were less affected by the crisis had relatively strong prudential regulatory and supervisory frameworks. In particular, the Philippines and Taiwan benefited from a steep learning curve as both had past experiences of financial crises. On the other hand, Singapore implemented a strong regulatory framework from the beginning of the liberalisation programme.

The Philippines, which is widely acknowledged to have fared better than some of its SEACEN neighbors because of its robust financial system, complemented the liberalisation effort with reforms in the regulatory and supervisory framework. The experience of financial sector deregulation in the early 1980s, which led to a financial crisis, provided direction to these reforms. Thus, the second batch reforms in the late 1980s placed a strong emphasis on strengthening the financial system. Measures to improve prudential regulation and supervision were also put in place. Moreover, the framework for prudential regulation and supervision was continually adapted to the needs of the changing financial landscape. For instance, prior to the crisis, in 1997, the BSP imposed caps on lending to the real estate sector to prevent over-lending to finance speculative activities. In view of these safeguards, the Philippine commercial banking system had the second-lowest NPL ratio among the SEACEN countries during the first half of the 1990s, which declined further in 1996. Philippine commercial banks also had the highest capital adequacy ratio in the region, with rates that were significantly above the regional averages in 1990-96. Since the banking system accounted for about 80 percent of the total assets of the financial system, the healthy banking system indicated a likewise sound financial system.

In the case of Taiwan, the financial system was also relatively sound due to a well-developed prudential regulatory framework. This framework included, among other components, an information disclosure system, internal control and audit guidelines for securities firms, banks and community financial institutions, and limits on lending to and investment in the real estate and securities markets. Thus, the prudential and regulatory framework in Taiwan covered both banks and NBFIs. It should also be noted that Taiwan had strict disclosure requirements, particularly for the short-term external debt of financial institutions. On account of these regulatory measures, Taiwan's commercial banking system had the lowest NPL ratios in the region in 1990-95, and among the lowest in 1996. Moreover, the average capital adequacy ratio of commercial banks was well within the Basle standard of 8.0 percent. Since the banking system accounted for more than 80 percent of the total resources of the financial system, this means that financial institutions in Taiwan were generally stable and healthy.

5.3.4 Supporting infrastructure (e.g., well-developed capital market)

As earlier noted, the absence of a well-developed capital market in the crisis-hit countries led to the channeling of funds to unprofitable speculative activities such as real estate, giving rise to asset price bubbles. The slow pace of capital market development in the SEACEN countries could be traced, in turn, to the lack of instruments, such as government bonds, as most of the SEACEN countries have had fiscal surpluses for several years before the crisis.

In Thailand, for instance, long-running fiscal surpluses precluded the development of the capital market. The lack of alternative investment opportunities led to over-investment in the real estate sector. This, in turn, fueled asset price inflation and financed a consumption boom. The development of indirect monetary policy instruments had also been weak. Due to years of fiscal surplus, the Bank of Thailand's open market operations were severely constrained by an illiquid government bond market.

The Philippines also experienced asset price bubbles because of over-investment in these instruments owing to the underdevelopment of the capital market. However, as already mentioned, a relatively strong prudential and regulatory framework helped to shield the banking system from the impact of the consequent deflation in asset prices.

In Singapore and Taiwan, the liberalisation programme was an integral part of a larger reform effort, such as the deepening of the capital market. Thus, in these countries, active trading in a wide array of financial instruments provided many opportunities for hedging and reduced the likelihood of financial crises.

5.3.5 Macroeconomic policy mix

The liberalisation programme should be supported by an appropriate mix of macroeconomic policies, particularly pertaining to the exchange rate. Under an open capital account, exchange rate policy cannot be used to achieve the goals of external stability while orienting monetary policy toward internal stability objectives. However, some of the crisis-hit countries continued to pursue nominal exchange rate anchors after liberalisation. Meanwhile, interest rates were used to control inflation. The combination of stable exchange rates and high interest rate differentials in the context of a liberalised capital account encouraged the inflow of foreign funds, in the form of both investments and loans. Meanwhile, sterilisation of the foreign capital inflows led to higher interest rates, which induced further capital inflows, sustaining a vicious cycle.

In Thailand, for instance, while the capital account had been liberalised since 1989, the exchange rate remained fixed to the currencies of Thailand's major trading partners. The fixed exchange rate system, which provided almost zero risk to domestic borrowers, along with high domestic interest rates, encouraged heavy inflows of foreign capital. This posed a problem not only for the private sector, but also for the public sector, particularly the monetary authorities. The peg constrained the autonomy of monetary policy. Thus, against the backdrop of a stable exchange rate, increases in domestic interest rates to curb inflation and check the overheating economy further induced capital inflows.

Korea experienced the same problems with regard to the macroeconomic policy mix. It followed a managed exchange rate system after liberalisation, while using high domestic interest rates to sterilise capital inflows. These policies encouraged foreign borrowing at lower international rates; with little concern about the need to hedge external debt against large changes in exchange rates.

In most cases, the managed exchange rate system neutralised the exchange rate's function of adjusting the balance of payments and worsened the current account position. This can be seen in the deteriorating current account positions of most of the SEACEN countries in the aftermath of liberalisation and prior to the crisis.

In Indonesia, strong capital inflows resulted in the appreciation of the rupiah, leading to declining competitiveness and the deterioration of the current account. The widening current account deficit, in turn, necessitated increased foreign financing, mainly short-term capital inflows, in the form of portfolio investment and foreign loans.

Based on the foregoing considerations, it appears that the countries that were more severely affected by the crisis failed to adopt an integrated and coordinated approach to liberalisation. On the other hand, the less affected economies followed a relatively more integrated liberalisation framework that gave due consideration to the pacing and sequencing of reforms, as well as the implementation of supporting measures, such as strengthening the prudential and supervisory framework and developing the capital market.

6. Summary and Conclusions

The experience of the SEACEN countries tends to support the view that that the twin crises cannot be traced as much to weak macroeconomic fundamentals as to vulnerabilities in the financial systems of the worse-hit SEACEN economies.[44] These vulnerabilities reflect, to a large extent, the failure of the financial systems in these countries to efficiently intermediate the flow of funds, particularly foreign funds, in the domestic financial market.

On the one hand, financial institutions borrowed heavily from abroad on account of a liberalised capital account and stable exchange rates, which virtually eliminated exchange rate risk. On the other hand, financial institutions lent excessively in the domestic market as the deregulation of the domestic financial sector, without concomitant measures to strengthen prudential regulation and supervision, reduced the incentives for effective risk management. Since a large portion of the proceeds of foreign borrowings was used for local-currency lending, the rapid expansion of domestic credit gave rise to currency mismatches. Moreover, since foreign borrowings were mostly short-term while some domestic loans were long-term,

44. As earlier noted, Malaysia seems to be the odd one out among the worse-hit SEACEN economies since it had generally healthy macroeconomic fundamentals and a fairly stable financial sector in 1996. The crisis in Malaysia may thus be attributed mainly to contagion effects.

the rapid growth of domestic credit also resulted in maturity mismatches. When the currency crisis struck, the sharp depreciation of the currencies of the affected economies increased the value of foreign borrowings in local-currency terms, while the value of local-currency loans covered by these borrowings remained the same. This put local financial institutions in a bind in terms of servicing their maturing short-term foreign obligations, not only because of the now higher local-currency value of these obligations, but also because a substantial portion of the proceeds from these foreign borrowings had been channeled to domestic loans that were yet to pay off.

Apart from giving rise to problems associated with currency and maturity mismatches, rapid domestic credit growth also increased the general level of credit risk in the financial systems of the worse-hit SEACEN economies, as the liberalisation of the domestic financial sector, without supporting measures to improve prudential regulation and supervision, increased the opportunities for risk-taking. As earlier noted, a liberal credit policy would normally result in an expanding portfolio of risky loans, which leads to banking sector fragility. While hedging through portfolio diversification may reduce the risk of bank insolvency and even shield some banks from systemic problems, portfolios of risky loans inevitably render the banking sector vulnerable to economy-wide adverse shocks, such as a recession or the sudden bursting of an asset bubble.

The problem of underdeveloped capital markets in the affected SEACEN economies aggravated the situation of increased risky lending. Due to the lack of alternative investment instruments, a large portion of domestic credit was channeled to the property and equities markets, creating an asset bubble. The overpricing of assets was sustained in part by a circular process, in which the proliferation of risky lending pushed up the prices of risky assets, which were used as loan collateral, and thus provided a momentary boost to financial institutions' balance sheets. When the bubble burst, however, asset prices plunged and led to the insolvency of these institutions. Imperiled financial institutions were eventually forced to cease operations, which led to the contraction of credit, further asset deflation and a deeper financial crisis.

Thus, while the Asian currency and financial crisis may be attributed to a number of factors, it appears that weaknesses in the financial systems of the severely affected economies contributed significantly to the crisis. Fissures in the financial infrastructure may be traced, in turn, to the improper pursuit of the twin liberalisations. In particular, *countries that did not adopt a coordinated and comprehensive approach to liberalisation were severely affected by the crisis.* On the other hand, *countries that followed a fairly integrated liberalisation process weathered the crisis relatively well.*

As discussed in the Conceptual Framework, an integrated and comprehensive approach to liberalisation would have the following features:

- Proper sequencing of reforms, with the deregulation of the domestic financial sector generally occurring before the opening of the capital account;
- Proper pacing of reforms;
- An effective regulatory and supervisory framework;
- Other structural reforms, particularly the development of the domestic capital market; and
- An appropriate mix of macroeconomic policies.

a) *With regard to the sequencing of reforms, the study finds that in some of the worse hit SEACEN economies, capital account liberalisation was undertaken almost simultaneously. with the deregulation of the domestic financial sector.* Thus, the financial system was not prepared for the increased volume and complexity of financial transactions that came with the opening of the capital account. As regards specific reform measures, the study finds that, in some countries, the activities of NBFIs were liberalised earlier than those of banks. This led to the rapid development of the relatively less monitored and -regulated NBFIs and the consequent growth of NBFI-intermediated short-term credit. Meanwhile, in the capital account, short-term borrowing was liberalised ahead of long-term borrowing, resulting in the rapid build-up of short-term external debt.

b) *Countries that were severely affected by the crisis followed either a generally too rapid or too slow pace of liberalisation.* The former approach left little time for domestic financial institutions to adapt to and brace themselves up for the more competitive, liberalised environment, and thus resulted in weak financial institutions. The latter, on the other hand, failed to give a strong signal on the thrust of liberalisation and exerted a negligible impact on market players and on the economy as a whole.

c) *In the worse-hit countries, liberalisation measures were not complemented with measures to strengthen prudential regulation and supervision.* In some cases, the implementation of prudential regulations lagged behind the liberalisation of the domestic financial sector. In others, prudential regulations were imposed but were inadequate or weak. This gave rise to fragile financial institutions that borrowed heavily from abroad and lent excessively—that is, without due diligence—in the domestic market in the wake liberalisation because the infrastructure for risk control was weak.

d) *Meanwhile, the absence of a well-developed capital market in the crisis-hit countries led to the channeling of funds to unprofitable speculative activities such as real estate, giving rise to asset bubbles.*

e) *Another cause of the crisis in the region was the maintenance of exchange rate pegs and the use of interest rates to achieve price stability after liberalisation.* The combination of stable exchange rates and high interest rate differentials encouraged the influx of foreign capital. Sterilisation led to higher interest rates, which further induced capital inflows. When these flows were reversed at the height of the speculative attacks on the currencies in the region, a recession followed.

f) The study also finds that, *in the case of Malaysia, contagion effects appear to have played a major role in the crisis since the country had generally favourable macroeconomic fundamentals, as well as a healthy financial system, prior to the crisis.*

7. Policy Implications

In light of the foregoing findings, this study recommends the following policy directions, with a view to ensuring the successful implementation of the twin liberalisations, and thereby preventing the occurrence of crises of such magnitude and scope as the Asian crisis:

a) *While recognising the merits of the various approaches to the twin liberalisations, this study recommends that the liberalisation of the domestic financial sector and the capital account be undertaken within a comprehensive and coordinated framework.*[45] *This framework prescribes macroeconomic stability as the first precondition to liberalisation.* Undertaking liberalisation in an unstable macroeconomic environment would lead to greater economic instability. As noted in the Conceptual Framework, a stable macro economy would be characterised by low and predictable inflation, appropriate real interest rates, stable and sustainable fiscal policy, a competitive and predictable real exchange rate, and a viable balance-of-payments position.

This policy recommendation does not imply, however, that all the aforementioned conditions should be present prior to liberalisation. From a broad perspective, fulfillment of these conditions would be tantamount to having an economy that is free of distortions. As noted earlier, however, reforms are undertaken precisely to remove distortions in the economy. Thus, governments contemplating liberalisation need not wait for all these macroeconomic conditions to be in place before undertaking liberalisation. Nonetheless, *they should ensure that there is a certain degree of stability in the economy*, which means that a certain combination of these preconditions must be present, prior to liberalisation. This will ensure that liberalisation, which can have destabilising effects on the economy under less auspicious conditions, does not aggravate existing macroeconomic imbalances.[46]

b) *Given a generally stable macro economy, the liberalisation of the domestic financial sector and the capital account should be properly sequenced.* Considering that financial systems in most liberalising

45. These approaches are discussed in some detail in the Conceptual Framework.

46. As earlier noted, liberalisation can lead to financial fragility and excessive capital inflows, unless proper safeguards are put in place.

countries tend to be weak and underdeveloped (owing in large part to previously repressive financial regimes), *the deregulation of the domestic financial sector prior to the liberalisation of the capital account is considered the more rational approach.* This sequencing of reforms will give the domestic financial sector the opportunity to develop and to enhance its capability for efficiently absorbing and channeling foreign fund inflows, which will likely increase in the wake of capital account liberalisation. It will also help build strong, efficient and diversified domestic financial institutions that will be able to stand up to the pressures of foreign competition as global financial integration intensifies.

Attention should also be paid to the sequencing of specific reforms in the domestic financial sector and the capital account. In this regard, it is suggested that long-term accounts, which are considered to be more stable, be liberalised ahead of those, which are short-term. For instance, ceilings on short-term interest rates may be deregulated last to keep these rates from overshooting and thus ensure a smooth transition toward the liberalised regime. This would also encourage domestic institutions to lend long at rates relatively more attractive than those on short-term loans and thus help develop the market for long-term funds. In the case of capital account transactions, liberalising long-term loans and investments ahead of short-term loans would encourage the inflow of more stable long-term foreign capital and preclude the rapid build-up of short-term debt.

c) *The pace of liberalisation should be neither too rapid nor too slow.* The former approach would give little time for domestic financial institutions to adapt to and brace themselves up for the more competitive, liberalised environment, giving rise to weak financial institutions. On the other hand, the latter would fail to provide a signal to the public of the cogency of the reform effort and would likely exert a negligible impact on market players and on the economy as a whole. In other words, there should be a critical mass of reforms at specific stages of the reform process to signify the government's commitment to the reform agenda.

d) *In light of the possible adverse effects of liberalisation on the economy, there might be a need, in extreme cases, to check the pace of* *liberalisation by implementing drastic measures, such as the introduction of selective capital controls.* Such controls may be necessary to maintain order in the markets and check massive capital flight during times of persistent speculative activity. This proposal takes on greater significance in light of the fact that capital movements in the era of liberalised financial markets are largely influenced by the speculative activities of an ever-growing number of hedge funds.

However, there is a caveat to this proposed policy option: *capital controls should be temporary and should be lifted once the objectives for their imposition have been met.* If these measures become a permanent feature of the system, they would eventually cause distortions and result in an inefficient allocation of resources. In this regard, it is important to establish an appropriate legal framework for imposing such controls. This framework should, among other things, indicate the necessary conditions for introducing said controls, identify the allowable forms of control, and set limits on their duration and scope.

e) Since capital account liberalisation creates opportunities for economic agents to take on greater foreign exchange risks, while financial liberalisation widens the scope for financial activities and encourages risky lending, *the liberalisation process should be supported by measures to strengthen prudential regulation and supervision of both banks and NBFIs.* In this regard, there is a need to develop national standards that conform with international best practices. This would reduce systemic risks in both global and regional financial markets.

Efforts to improve prudential regulation should include the development of an effective framework for failure resolution. This recommendation is based on the fact that, in most of the severely affected economies, excessive risk-taking was encouraged by the absence of a mechanism for resolving problem financial institutions, as well as the lack of a clearly stated policy on allowing financial institutions to fail.

Since excessive related party lending was also one of the causes of weak financial institutions in the worse-hit SEACEN economies, improved prudential regulation and supervision should also tighten the limits on, as well as enhance the monitoring system for, such forms of lending.

f) The foundation of the effort to improve the regulatory and supervisory framework is the promotion of transparency. Transparency relies on high-quality reporting and disclosure standards, which would ensure the timeliness and accuracy of data that countries and institutions provide the public. Transparent and comparable reporting and disclosure on the financial condition of businesses and financial intermediaries, as well as the macroeconomic conditions of countries, will provide the basis for informed decision-making and thus reduce the risk of sharp shifts in market sentiments in response to uncertainties. It will thereby limit contagion effects. The development of information dissemination systems in accordance with International Monetary Fund's (IMF) Special Data Dissemination Standard (SDDS) would be a major step in this regard.

g) Weaknesses in the internal management of financial institutions, reflecting poor corporate governance, also contributed to the crisis. Thus, *the effort to strengthen prudential regulation and supervision should be complemented with measures to improve corporate governance.* In this regard, countries can begin with the codification of good corporate governance practices. Among other things, the guidelines could probably limit the number of allowable directorships. This will help address the issue of interlocking directorships in the financial systems in most of the SEACEN countries, which gave rise to excessive related party lending.

h) The crisis highlights the risks involved in the over-dependence of most of the SEACEN economies on the banking sector for intermediating funds. *Thus, there is a need to develop the capital markets in the region.* A well-developed capital market will help keep the financial system stable or, in a worse case scenario, lessen the scale of a financial crisis or recession, in three ways. *First,* it will help absorb capital inflows and channel them to longer-term projects, thereby checking the formation of asset bubbles. *Second,* it will provide an alternative source of financing should the banking system become insolvent due to imprudent lending activities. *Third,* it will enhance the term structure of interest rates and thus facilitate the pricing of more stable long-term debt. This will, in turn, encourage long-term foreign borrowing and thus check the build-up of short-term foreign debt.

The development of the capital markets would also be useful in enhancing the effectiveness of monetary policy since the latter is transmitted into the real sector through short-term and long-term interest rates. The link between short- and long-term interest rates, in turn, depends on the availability of various types of financial instruments, including bonds, which would flourish in a developed capital market.

One of the reasons for the slow pace of capital market development in the SEACEN countries was the lack of instruments, such as government bonds, as most of the SEACEN countries had generated fiscal surpluses for several years before the crisis. However, the large amount of bonds that had and still have to be issued on account of the recapitalisation of the banking sector after the financial debacle in some countries should provide an opportunity for the development of the capital market.

i) *Overall, liberalisation measures, particularly in the capital account, should be coordinated with macroeconomic policy design to ensure consistency.* With the opening of the capital account, exchange rate policy cannot be used to achieve the goals of external stability while orienting monetary policy toward internal stability objectives. Pegging the exchange rate while using interest rates to control inflation would encourage the influx of foreign capital in a liberalised environment. Sterilisation of these flows would lead to higher interest rates, inducing further capital inflows, and sustaining a vicious cycle. Thus, as capital account liberalisation progresses, there should be greater exchange rate flexibility to temper capital inflows that seek to exploit interest rate differentials.

j) Reliance on foreign capital inflows to finance current account deficits increases the country's vulnerability to changes in their terms and supply. *Countries must therefore ensure that their ability to earn foreign exchange through exports will be sufficient to finance their import bill and ultimately close the gap in the current account.* In this regard, there is a need to diversify export products and markets.

k) *If domestic savings are not sufficient to meet the domestic demand for funds, foreign capital inflows in the form of direct equity infusions should be preferred to portfolio investments.* However, there may be difficulties in identifying, which types of inflows are direct and which constitute hot money. For instance, even so-called direct investments may be withdrawn whenever the investment climate proves unfavourable, while portfolio investments may remain for as long as long as it is profitable and there are various investment channels for portfolio choices. Thus, sustaining capital inflows depends to a large extent on the macroeconomic conditions in the recipient country. *In this regard, there is no substitute to healthy macroeconomic fundamentals in attracting stable capital inflows.*

l) *The surveillance process should be sustained on both the global and regional levels.* This process provides enough lead-time to anticipate the emergence of potential instability and the possibility of contagion. In this regard, there is a need to strengthen cooperation among the SEACEN countries.

It should be noted that, for countries that have already undertaken the twin liberalisations, the foregoing recommendations regarding the sequencing of liberalisation measures would no longer be relevant. In such cases, the emphasis of policy should be on strengthening the domestic financial sector—by improving the framework for regulation, supervision and corporate governance and by enhancing transparency—while, if still possible, gradually opening the capital account to the global market. This approach would help keep the liberalisation of external financial transactions in pace with the development of the domestic financial sector. Implementing a programme to develop the local capital market and adopting the appropriate macroeconomic policy mix, particularly with regard to exchange rate policy, would also help ensure the success of the twin liberalisations.

The foregoing policy recommendations are based on an integrated analysis of the experiences of the SEACEN countries with the twin liberalisations in light of the twin crises. The individual country papers in Part II of this Project Report provide a more in-depth analysis of the experiences of the SEACEN countries as well as more specific policy recommendations.

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