Occasional Paper No. 47

FINANCIAL DEEPENING TO SUPPORT MONETARY STABILITY AND SUSTAINABLE ECONOMIC GROWTH

Bank Indonesia

The South-East Asian Central Banks
Research and Training Centre
(The SEACEN Centre)
Kuala Lumpur, Malaysia

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Background Information on "*Financial Deepening, Monetary Stability and Economic Growth in the SEACEN Region*", Prepared for the 43nd SEACEN Governors' Conference on *Financial Deepening to Support Monetary Stability and Sustainable Economic Growth*, on 21 March 2008, compiled by The SEACEN Centre

Preface

It has been established that there are vital linkages between financial deepening and economic growth as well as poverty reduction. An efficient and robust financial system contributes to higher savings and investment, increases the efficiency of resource allocation and diversifies risks, and hence supports long-term growth and poverty reduction. However, while financial deepening is important for growth, it must be implemented with adequate incentives and safeguards.

It has been observed that financial deepening in SEACEN economies has taken a more diversified structure, advancing from a bank-centred to a more sophisticated market-based financial system. Stronger financial institutions and greater risk diversification can also strengthen an economy's resilience to adverse shocks. However, to minimize potential risks, financial deepening has to be properly sequenced and must be accompanied by adequate surveillance and strong regulatory framework.

This Occasional Paper, prepared by Bank Indonesia, served as a background paper to facilitate discussions on ***Financial Deepening to Support Monetary Stability and Sustainable Growth*** among the SEACEN Governors at the 43nd SEACEN Governors' Conference held on 21 March 2008 in Jakarta, Indonesia. The Appendix was prepared by The SEACEN Centre to provide cross country information on financial deepening, monetary stability and economic growth in the SEACEN Region

The SEACEN Centre wishes to thank Bank Indonesia for being the gracious and generous host of the 43nd SEACEN Governors' Conference and for preparing this background paper. Views and comments expressed in the paper are, however, those of the authors and do not necessarily represent those of The SEACEN Centre, or the SEACEN member central banks/monetary authorities.

Dr. A.G. Karunasena August 2008
Executive Director
The SEACEN Centre

FINANCIAL DEEPENING TO SUPPORT MONETARY STABILITY AND SUSTAINABLE GROWTH[1]

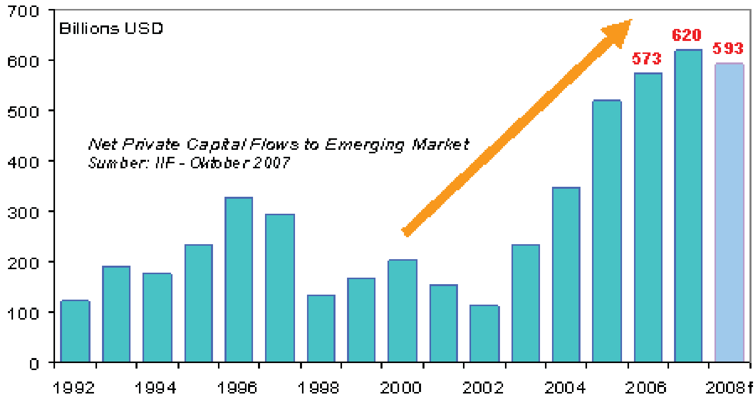
Bank Indonesia

1. Introduction

The influx of capital flows to emerging economies continues against a background of rising global liquidity supported by robust economic and financial stability. Rapid financial and economic integration as witnessed during the past two decades has supported the development of SEACEN member countries. The SEACEN region has increasingly become important not only as a supplier of goods and services of world demand but also as an alluring destination for global investment. During the past three years (Table 1.1), at least one-third of the total private capital flows target emerging Asia, marginally lower than private flows to emerging Europe. The combination of better domestic economic fundamental and financial stability with the rise in global liquidity, innovation of new financial instruments, and a wider international investment base, has become major factors in explaining the rising capital flows in recent years. It is likely that the influx of capital flows to emerging economies will continue in the foreseeable future as ample global liquidity continue searching for higher yield together with the rising hedge fund activities. The inflows may flourish the domestic economy and reduce the yield spread as demand for emerging market bonds increase amidst global excess liquidity. Nevertheless, the inflows have also resulted in concerns for export competitiveness and the susceptibility of the economy to sudden capital reversal.

1. Background paper prepared by Bank Indonesia for the 43rd SEACEN Governors' Conference which was held from 20 - 23 March 2008, in Jakarta, Indonesia (the appendix and key indicators were additionally provided by The SEACEN Centre.

Figure 1.1. Net Private Capital Flows to Emerging Markets



Source: IIF, October 2007

Table 1.1. Composition of Capital Flows to Emerging Markets

billions of USD

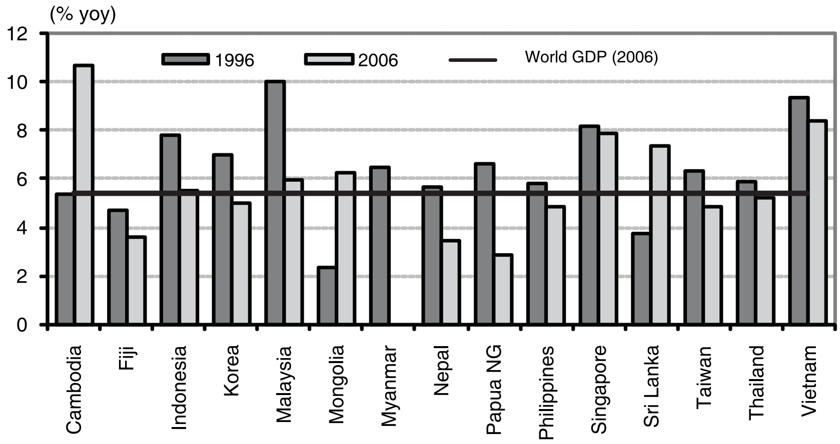
	2005	2006	2007e	2008f
Private flows	519.6	572.8	620.3	593.1
Latin America	70.0	52.6	106.0	88.1
Emerging Europe	204.1	234.0	276.1	274.2
Africa/Middle East	25.0	25.8	29.8	33.6
Emerging Asia	220.5	260.5	208.3	197.2
Official flows	-64.2	-65	3.3	9.5
Latin America	-28.5	-23.7	5.5	5.5
Emerging Europe	-28.9	-28.4	-6.2	-1.9
Africa/Middle East	-1.7	-9.6	-2.5	0.1
Emerging Asia	-5.1	-3.3	6.6	5.8

e:estimate; f:forecast

Source: IIF - October 2007

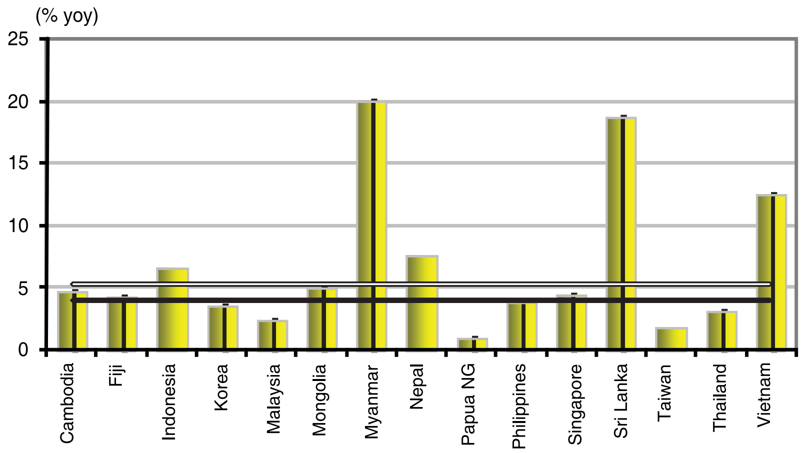
In light of external shock potential, macroeconomic conditions of SEACEN members have shown improvement and become more resilient. Taking stock of current development of SEACEN members, it can be fairly concluded that as a region, SEACEN has promising economic growth with an acceptable inflation rate. In terms of external vulnerability, many members have established better conditions than those during the Asia financial crisis in 1997/98 therefore providing a cushion for external shocks. Although as of 2006 the GDP of crisis-hit countries have yet to reach their pre-crisis levels, most economies have grown favorably. During the observed year, almost half of the member economies have grown as much as the world output of 5.4% (Figure 1.2). Inflation as an indicator for price stability is also at a comfortable level, mostly below the inflation rate in developing Asia of 5.3% in 2007 (Figure 1.3). In addition, the external sector also shows favorable development. Economies, experiencing current account deficits (as a percentage of GDP) in 2006, have reduced the balances or even posted positive balances. (Figure 1.4). In line with better macroeconomic conditions, almost all member countries experienced higher reserve accumulation or stronger domestic resilience to external shocks (Figure 1.5).

Figure 1.2. Economic Growth in SEACEN Economies



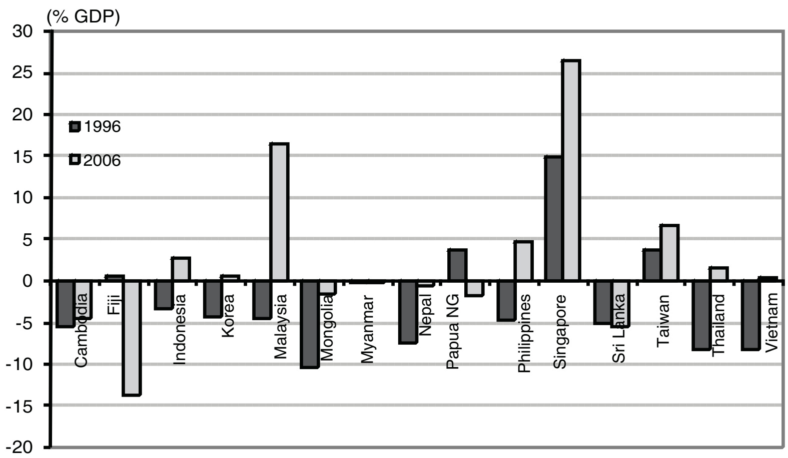
Source: IFS Statistics, WEO Oct -07
Note: Mongolia, Philippines and Vietnam use figure 2005 for 2006;
Nepal and Papua New Guinea use 2004 figures for 2006;
World GDP growth use 2006 figure from World Economic Outlook

Figure 1.3. Inflation in SEACEN Economies



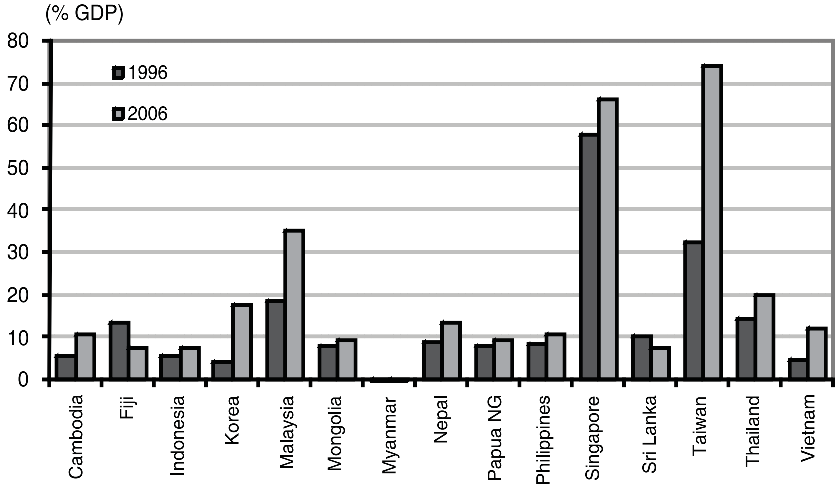
Source: IFS statistics, Bloomberg
Note: Cambodia, Mongolia, Myanmar, Nepal, use 2006 figure; others use 2007 figure
Inflation of Developing Asia in 2007; Inflation of Developing Asia in 2006

Figure 1.4. CA Balance in SEACEN Economies



Source: IFS Statistics
Note: Mongolia, Myanmar, Nepal, and Papua New Guinea use 2004 Figure for 2006
Fiji and Vietnam use 2005 figures for 2006

Figure 1.5. International Reserves in SEACEN Economies



Source: IFS Statistics
Note: Myanmar, Nepal, and Papua New Guinea use 2004 Figure for 2006
Fiji and Vietnam use 2005 figures for 2006

Nevertheless, amid better macroeconomic conditions, members are still prone to sudden reversals in capital flows as reflected by exchange rate fluctuations. Although gradually waning, contagion effects still matters, particularly due to market perception. The vulnerability of domestic and regional economy to the sudden reversal of capital flows, poses a daunting policy challenge for many SEACEN members. Financial bouts in the last couple of years are evidence of the susceptibility of financial markets. Most domestic currencies of member countries, particularly those of ASEAN countries, have fluctuated widely with more pressure of appreciation on the USD (Figure 1.6 and 1.7). Emanating from the sub-prime mortgage problem in the US, many member economies have had to deal with fluctuations in capital flows and lessen its impact on the domestic economy. It is widely accepted in the era of economic openness that with a more open capital account regime and more independent monetary policy, the attainment and maintainance of monetary and financial stability are always the priority of central banks. Yet, experience has taught us that stability is not a panacea for economic problems faced by the members. All in all, this has brought many central banks to the more fundamental policy of strengthening the domestic economy resilience namely, to improve financial deepening.

Figure 1. 6. Exchange Rate Movements in SEACEN Economies

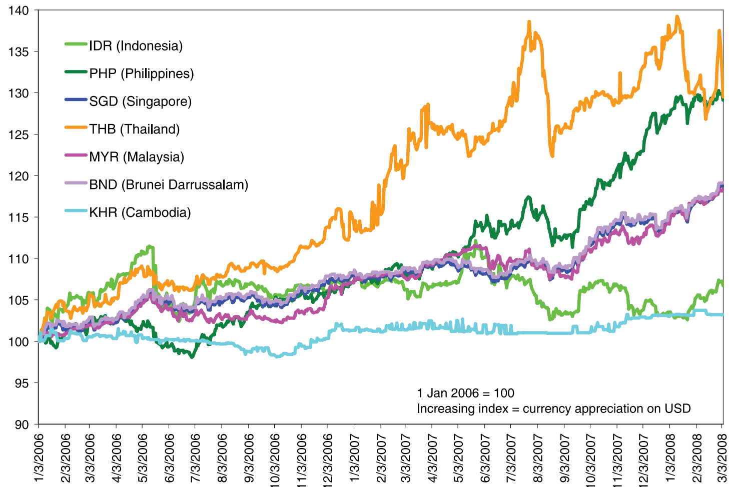
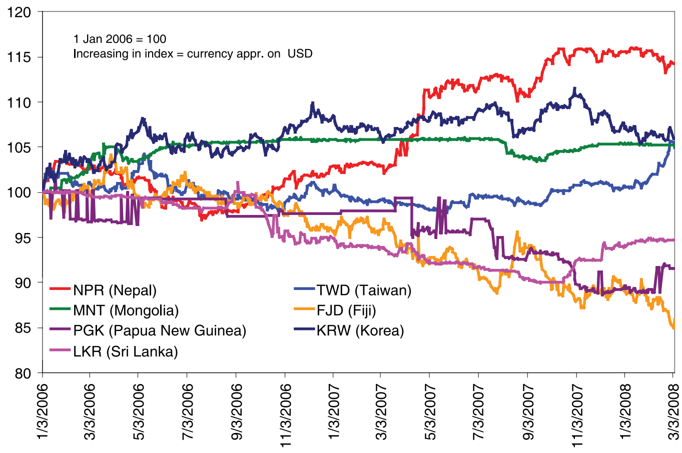


Figure 1.7. Exchange Rate Movements in SEACEN Economies



The term ‘financial deepening” is used to describe the development and expansion of volumes of financial institutions such as banks, stock markets, and insurance companies, relative to the size of a country’s economy. It refers to the penetration of a variety of formal financial products and services into all sectors and sections of the society to meet their consumption, saving, production and investment needs. In other words, financial deepening is an increased provision of financial services with a wider choice of services geared to all levels of society, hence propagating the market volume. The increase of volume in financial markets resulting from financial deepening is expected to absorb any volatility within market players. Using the analogy of financial market volume as the size of a pond, it is better off to have a wider and deeper pond to absorb any waves in the water. With a wider and deeper pond, the spilling of the water would be avoided or at least only occurring at a marginal amount. In this respect, Bank Indonesia has marked 2008 as the year to promote financial deepening in support of monetary and financial stability as well as sustainable economic growth.

In theory, a deep and efficient financial system is preferable due to several reasons. The basic theory of financial deepening is that financial development creates, enhances and enables financial condition for growth, either with a supply leading (financial development spurs growth) or a demand-following (growth generates demand for financial products) channel (Levine, 1997; Liu, 2003; Lynch, 1996; Kiyotaki and Moore, 2005; Mohan, 2006). A well-functioning financial system by definition allows for efficient allocation of funds for its most productive uses, serving vital purposes, and mitigating the effects of asymmetric information and transaction costs. It also offers better portfolio and risks diversification which ultimately promotes resilience of the financial system against shocks. The increased service ability of the financial system also reflects a higher degree of financial inclusion as obstacles faced by certain members of the society, e.g. small and medium enterprises are minimized. In sum, the benefits of financial deepening to the development of the financial market are: (i) overcoming market incentive frictions and smoothing financial transactions; (ii) exploiting economies of scale in data collection and monitoring (debtors); (iii) allowing individual savers access to large, high risk, long term investment projects, and hence (iv) improving allocation of resources.

The empirical result on the causal relations between financial development, growth, and poverty shows positive result. The positive relationship is attributable to efficiency in fund allocation (King and Levine, 1993; Levin and Zervos, 1998), which then gives incentive for direct investment (Gurley and Shaw, 1967; Goldsmith, 1969; Jung, 1986). It also reveals that financial deepening correlates with the degree of financial inclusion (Mohan, 2006). Recent findings show that financial deepening and growth has a bi-directional relationship and re-enforces each other (Calderon and Liu, 2003). Yet, Loayza and Ranciere (2001) find that the positive relationship only exists in the long-term. In development theory, more advocates have supported the adoption of redistributive public policies to improve wealth distribution and foster growth. In this respect, financial sector reforms that promote broader access to financial services become the core of development agenda (World Bank, 2008).

Empirical findings in SEACEN economies show the positive result between financial deepening and economic growth through nominal interest rate channel. The channel shows a significant effect on the investment level, hence the savings rate and income (Junggun Oh, 1992). Pasadilla (2001) finds that financial deepening through banking deregulation in SEACEN economies has boosted financing availability (deposits) and intermediary function. The condition contributes significantly to economic expansion in the region.

Nevertheless, financial deepening has raised concerns on downside risks and policy dilemma of maintaining macro stability directly and indirectly. The immediate effect of financial deepening is related to vulnerability of the domestic economy on the possibility of sudden capital reversal. Negative shifting in global investor risk appetite may result in financial instability hence posing a threat to sustainable economic growth. Meanwhile, the indirect effect of financial deepening emerges when higher financial accessibility induces domestic demand not supported by economic capacity. In this respect, the concern of economic overheating due to excessive domestic liquidity may drive inflationary expectations leading to macroeconomic instability. The latter impact is plausible due to the pro-cyclical characteristic of financing. Less prudent credit selection during good periods may have an impact on the financial system. However, the impact usually surfaces during downturns. Moreover, easy availability of affordable credit could further lead to irresponsible lending and over-indebtedness with concomitant fall-outs. Hence, the combination of monetary and prudential measures are necessary to ensure that financial deepening and rapid credit growth needed to meet the requirements of a growing economy do not threaten macro-economic and financial stability.

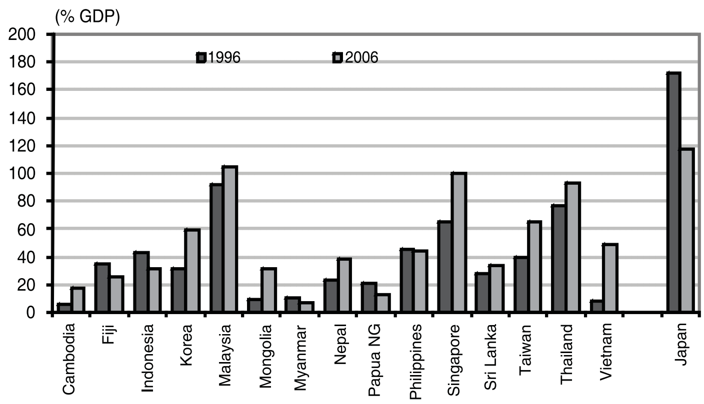
Unless undertaken carefully, risks to financial stability may emerge from the process of financial deepening. Therefore, it is important to build a deep and stable financial system in the SEACEN region based on trust and consistency. The existence of trust in the system will establish a favorable environment for market players. Coupled with a consistent strategy, the environment will induce better efficiency in intermediary function and allocation as well as stimulate an effective operational market.

Realizing the above dilemma regarding the impact of financial deepening as well as the need to take precautionary steps to balance the positive effects on economic growth and potential instability, the second part of this paper covers financial development in financial markets. In this section, more facts on the stages of financial deepening are explored, including the relationship with economic growth and prudential measures to maintain stability. The third part explores the impact of financial deepening on monetary policy as well as financial stability.

2. Stages of Financial Deepening in SEACEN economies

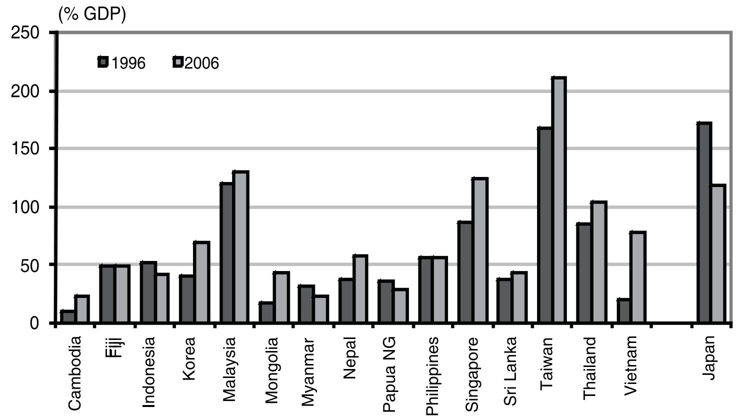
Financial deepening in the SEACEN economies has been progressing concurrently with financial deregulation and rapid integration to global financial markets (Figure 2.1). Rapid developments in the financial sector involving financial innovation and information technology progress in SEACEN economies have been occurring since the 1980s. The success of financial sector deregulation in the region was possible due to the expansionary economic period and sound fiscal policy. Pioneering with deregulation in the banking sector, the liberalization process has increased the availability of pool of funds and significant credit expansion. However, it appears that there remains ample room for financial deepening particularly for the corporate bond, foreign exchange and money markets. A deeper financial sector in SEACEN region will contribute to economic growth; nevertheless financial systems have yet to satisfy three characteristics which support growth, namely being: (1) well-diversified; (2) efficient; and (3) robust.

Figure 2.1a. Narrow Money in SEACEN Economies



Source: IFS Statistics
Note: Money is based Fiji, Sri Lanka and Vietnam use figure 2005 for 2006;
Mongolia, Myanmar, Nepal and Papua New Guinea use 2004 figures for 2006;

Figure 2.1b. Broad Money in SEACEN Economies



Source: IFS Statistics
Note: Fiji, Sri Lanka and Vietnam use figure 2005 for 2006;
Mongolia, Myanmar, Nepal and Papua New Guinea use 2004 figures for 2006;

Despite the growing financial sector, the speed of development among SEACEN economies varies. Financial markets in economies such as Singapore, Korea, Malaysia and Thailand grew very fast in terms of development in financial infrastructures, financial institutions as well as financial products and instruments, while that of other economies grew at a moderate or even slower rate. Consequently, at the present stage, financial depth in the SEACEN economies on average remains at a low level, though it has picked up recently. This condition becomes a challenge for central banks/monetary authorities in the region to narrow the gap by way of financially developed economies lending support to developing or underdeveloped economies.

Across the SEACEN region, members' financial structures vary widely, yet the extent of corporate bond market deepening lags behind. Nevertheless, compared to countries in other regions with broadly comparable per capita incomes (e.g. Pakistan and India), those in the region have relatively large banking and equity markets (Table 2.1. and Figure 2.2.). The extent of financial depth reflects mixed conditions, as may be observed, among others, from broad money ratio (M2 to GDP), assets of deposit money banks to GDP in the banking sector, and various indicators in the stock market and bond market.

Table 2.1. Sources of Financing for the Private Non-financial Sector

As a percentage of total financing

Countries	Commercial banks		Other Institution		Foreign sources		Others	
	2000	2005	2000	2005	2000	2005	2000	2005
India	217	51.7	34.4	16.6	4.6	2.2	39.3	29.5[6]
Indonesia	n.a	13.3	n.a	10	n.a	37.0	n.a	39.7[1]
Korea	24.5	32.1[7]	35	23.5	3.7	7.2	36.8	37.3
Malaysia	54.9	38.9	45.1	3.7	n.a	22.5	n.a	34.9[1]
Philippines	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
Singapore	87.2	75.2[8]	12.8	9.2[9]	n.a	n.a	n.a	15.6[2]
Taiwan	59.7	56.6	13.8	10.8	1.5	5.6	25.0	27.0
Thailand	84.1	58.4	n.a	0.3	7.5	16.8	1.0	24.5

Source: M S Monanty and Philip Turner in BIS paper no.35 "Monetery Policy Transmission in Emerging Market economies: What is new?"

[1] Includes equity

[2] Equity excluded

[6] Includes non bank borrowings, trade dues and other current laibilities

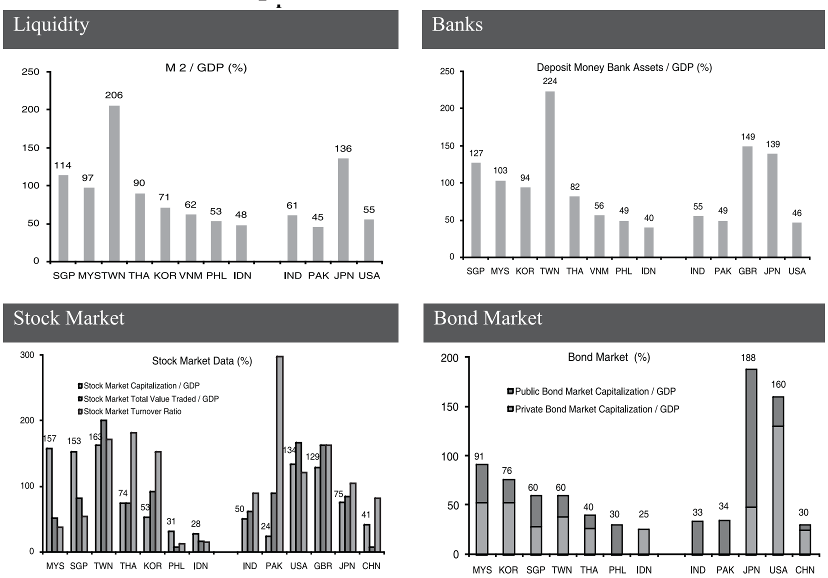
[7] Commercial banks and specialized banks

[8] Includes domestic banking units ans Asian currency units of commercial banks

[9] Includes finance companies and merchant banks

The size of equity markets is relatively large, except in Indonesia and the Philippines. Nevertheless, the extent of financial deepening in bond markets, particularly the corporate bond market, relative to other financial segments has been lagging behind.

Figure 2.2. Financial Deepening in SEACEN Region With Comparison to Non SEACEN Members



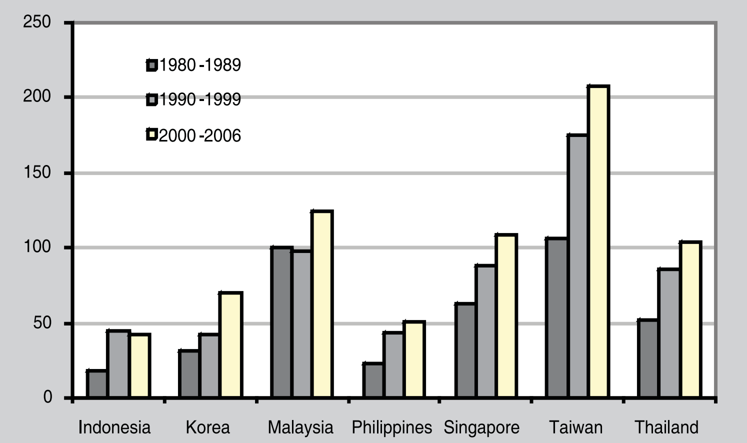
Source : World Bank, International Financial Statistics

Notes : Other than liquidity, all data were as of 2006. Liquidity is as of 2005.

2.1 Banking Sector

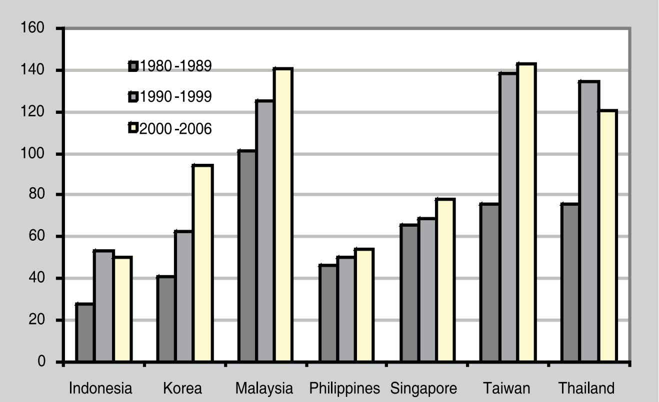
The process of financial deepening in the SEACEN region commenced after deregulation of the banking sector in the 1980s. The deregulation was undertaken through liberalization of interest rate; reducing reserve requirement; abolishing loans allocation for specific industry and relaxation of entry barriers such as licensing and branch requirement as well as abolishing entry barriers for foreign banks. Following financial liberalization, market determination of interest rates resulted in modestly positive real interest rates. Banks rapidly raised public deposits by offering a variety of deposit taking products. This in turn, coupled with the easing of reserve requirement, effectively increased the resources available to the financial system, making them capable of rapidly expanding credit (Figure 2.3 and 2.4). Nevertheless, in the crisis-hit members, banks appeared to be channeling more loans to non-productive sector, resulting in rapid credit growth and overheating of the economy, amplifying the impetus of financial catastrophe in 1998.

Figure 2.3. Average Deposits/GDP (%)



Source: IFS Statistics, calculated

Figure 2.4. Average Loans/GDP (%)



Source: IFS Statistics, calculated

Post crisis, banks have been more prudent, providing a conduit for stability. Financial sector reforms, predominantly in the banking sector, were undertaken by adopting international standards and best practices. The supervisory regime of the banking industry has been the subject of the 25 Basel Core Principles and banks are submitted to a more risk-sensitive capital adequacy regime (Basel II). This, coupled with the increasingly prudent behavior of banks, has enabled them to gain stability and positively contribute to economic growth post crisis. The outcome has also been positive for financial deepening in the region, reflecting the greater role of the financial sector in economies of SEACEN members. The source of financing for growth has increasingly diversified, as reflected by the declining dependency on bank financing.

Albeit the positive result, intermediation remains a daunting challenge; bank financing has not yet recovered to the pre-crisis level. The banking sector in the SEACEN region has become much more prudent despite solid credit growth. There have been steep rises in the rate of credit expansion in real terms, representing a catch-up from the crisis-depressed years in the late 1990s. In addition, a reduction in bank credit to the government has allowed increased lending to the private sector. However, it appears that banks are confronting a daunting challenge to achieve the level of intermediation similar to the pre-crisis level, particularly in Indonesia and Thailand. The ratio of domestic credit extended to the private sector to GDP has yet to recover to pre-crisis levels in several of the crisis-hit countries. This suggests that banks are holding many of their assets in forms other than loans (notably government bonds). In Indonesia and the Philippines, for instance, government bonds held by banks constitute around 14-15 percent of GDP in 2006 (World Bank, 2006), though gradually decreasing recently.

Banks are extra prudent in financing large debtors, and consequently, they have been gearing towards financing consumption. A growing share of consumer financing has occurred in some SEACEN economies, reflecting their growing risk-aversive behavior towards large and complex financing. In 2007, consumer lending accounted for 51 percent of total bank lending in Malaysia, 49 percent in Korea, 38 percent in Indonesia, 19 percent in Thailand, and 10 percent in the Philippines. The bulk of these loans to consumers has been for housing, vehicle financing and in forms of unsecured lending like credit-card and personal loans. Albeit the growing numbers, several markets have substantial scope for greater penetration of banking services to households.

In contrast, lending by banks to the corporate sector has remained subdued. In part this reflects low demand, both because corporate investment has remained low and because firms have de-leveraged and financed a significant proportion of their capital needs through retained earnings. Firms have also sought alternative sources of external financing as financial markets in the region have broadened. From banks' point of view, however, they may have become more risk-averse; pre-crisis lending levels were not necessarily the appropriate ones, given that corporations in most countries depended heavily on bank loans and were overly leveraged. In the foreseeable future, demand for corporate financing is likely to increase in line with investment needs. Banks appear to lag behind in serving the needs of corporate debtors.

Banking activities have been increasingly stabilized, contributing to the resilience of financial systems in the SEACEN region. Banking sectors in the region are sounder on average than they were a few years ago and their health is steadily improving. In all of the formerly crisis-affected countries, the reported nonperforming loan ratios are now in single digits, reflecting gradual improvements in profitability in the economies. Banks' capital positions have also improved and in all countries the average reported risk-weighted capital-adequacy ratios are now significantly above the 8 percent recommended by the BIS (Table 2.2). Stability in the banking sector is a solid conduit for effective financial deepening efforts in the region.

Table 2.2. Banking Soundness Indicators

Structural Bank Indicators

	Non Performing Loans [1]		Capital Adequency Ratio		Operating Cost [2]		Return on Assets [3]	
	2000	2005	2000	2005	2000	2005	2000	2005
Indonesia	18.8	8.7	12.7	19.5	2.5	3.6	0.3	1.7
Korea	8.9	1.2	10.5	12.8	1.8	1.7	-0.6	1.2
Malaysia	15.4	9.9	12.5	13.1	1.6	1.5	1.4	1.3
Philippines	24.0	20.0	16.2	18.1	3.4	3.4	0.4	1.1
Singapore	3.4	3.8	19.6	15.8	2.4	1.0	1.3	1.2
Taiwan	8.3	2.2	10.8	10.3	n.a.	1.1	0.4	0.3
Thailand	17.7	11.1	11.3	13.3	1.9	2.0	-0.2	1.5
China	22.4	10.5	n.a.	n.a.	1.4	1.1	0.1	0.8
Hong Kong SAR	7.3	1.5	17.8	14.9	1.2	1.0	n.a.	1.7
India	12.8	5.2	11.1	12.8	2.6	2.4	0.7	0.9

[1] as a percentage of total loans [2] as a percentage of total assets [3] in percent

In terms of supporting economic growth, two strategic directions may be considered, namely to establish universal banking regime and to increase the financial inclusion. The term "universal bank" has different meanings. Nevertheless, it usually refers to the combination of commercial banking (collecting deposits and making loans) and investment banking, i.e. issuing, underwriting and trading in securities (World Development Report, 1989). In a broad sense, the term "universal bank" refers to those banks that offer a wide range of financial services, such as, commercial banking, investment banking, private banking and other services, especially, insurance. By diversifying its activities, universal banking is expected to bring some benefits, such as economies of scale, efficiency, and innovation of products, which allow, for instance, capitalizing on consumers' willingness to pay for "one-stop shopping". Economies of scope on the product side arise whenever costs — especially IT and risk management — can be shared across product differentiation. India, the Philippines and Indonesia are some advocates in the region on the role of universal banking regime.

Along with benefits, there are also certain risks and challenges posed by universal banking. Consolidation and emergence of large financial conglomerates may lead to monopolistic behavior, which negates some of the economic benefits that a combination of activities is expected to yield. Moreover, asymmetric information and incentive problems may have potentially more disruptive effects when activities are combined under the same roof. Agency problems may lead to practices of less intensive screening of borrowers by universal banks compared to practices conducted by commercial banks. It is also argued that financial and social problems posed by possible failure of financial conglomerates would be more serious than that posed by the failure of a specialized bank. Moreover, the combination of commercial and investment banking can give rise to a conflict of interest that arises when transactions within the group are not on arms length basis. Moral hazard issues arise when such financial conglomerates are perceived as “too big to fail” from a systemic point of view and hence could be more prone to risk taking.

Another role of financial deepening to support economic growth is through the depth of financial inclusion. A key feature of financial deepening is expansion of access to funds to the financially excluded people. There is currently a clear perception that there are a vast number of people, potential entrepreneurs, small enterprises and others, who are excluded from the financial sector, leading to less opportunities for growth. Hence, an inclusive financial system will open equal opportunities, which will lead not only to acceleration of economic growth, but also to the reduction of poverty and increase in income. Realizing the benefits, it is important for SEACEN members to encourage financial inclusion.

Initiatives for financial inclusion has commenced in some countries. Some countries (e.g. South Asian countries like India, Bangladesh and Pakistan) have undertaken a number of measures to attract the financially excluded population into the formal financial system. Banks are required to (i) offer a basic banking ‘no-frills’ account with low or nil minimum balances as well as charges and (ii) to expand the outreach of banking and payments system to vast sections of the population. Regarding the effort to increase outreach and deal with the last mile problem especially amongst those excluded, banks in these countries are encouraged to utilize intermediaries such as Self Help Groups (SHGs), Micro Finance Institutions (MFIs) and other civil society organizations such as business correspondents through a branchless banking model. The usage of IT solutions including smart cards and mobile phones for carrying out banking activities has also helped in the reduction of transaction cost, better risk management and book-keeping.

Social objectives of financial deepening initiatives are considered equally important, especially in low-income countries. Ignorance of these issues can lead to social and political turmoil with concomitant effects on economic and financial stability. In some SEACEN members, apart from financial inclusion policies already alluded to, all banks are required to lend at least 40 percent of their total credit to priority sectors such as agriculture, small industry and small enterprises, small traders and transport operators, education and housing loans (with total value of up to $50,000). Banks that do not have a network of rural branches are required to ensure that some portions of their loans are extended to these sectors. In their case, export credit is included as a part of the priority sector. These prescriptions have in no way impinged on the profitability of banks, as they are free to make their credit decisions on commercial lines and ensure sound risk management practices for this portfolio.

2.2 Capital & Money Market

Most SEACEN economies have benefited from global financial development and the rising risk appetite on emerging markets in supporting the development of regional financial markets. Inevitably, the development of money and capital markets is influenced by the forces of financial liberalization and deregulation, technological and financial innovations, as well as the advancement of the financial institution business models. As alluded earlier, the development of capital and money market in SEACEN economies is quite varied, with equity market as the most advanced one. Singapore, as one of the most prominent financial centres in the world, together with Korea, Malaysia and Thailand, appears to be more developed in the region. These economies are better equipped with greater development in financial infrastructures, financial institutions as well as financial products and instruments.

2.2.1 Capital Market

Along with the improvement of general economic indicators in the region, the capital markets in SEACEN region also show significant development, with the stock market in the lead. Various indicators on the stock market show that several economies in the region (Taiwan, Singapore and Malaysia) have developed favorably compared to advanced markets in the US, UK and Japan (Figure 2.2 and Table 2.4). Although not as fast as the first group, other economies such as Indonesia, Korea, Thailand and the Philippines have recorded remarkable growth in terms of market capitalization (Table 2.3). The rapid development in the stock market has yet to be emulated by the bond market, which is still dominated by the public sector. Malaysia, Korea, Singapore and Taiwan record higher bond market capitalization as a ratio of GDP (Figure 2.2).

Rapid financial deepening in the stock market owes to growing activities of foreign players in response to the global excess liquidity as well as promising regional economic prospect. High GDP growth in SEACEN economies offers not only dividends but also potential capital gain for global investors. While China and Hong Kong lead the accumulation of domestic equity market capitalization in Asia, in SEACEN economies, Korea records the highest market capitalization reaching some USD1.1 trillion in 2007. The significant increase is due to the improvement of the corporate sector. In Indonesia, development during the past two years is supported by the good performance of the mining and agriculture sector due to high commodity price in oil and crude palm oil.

Table 2.3. Domestic Stock Market Capitalization (in million USD)

	2001	2007	Growth
Korea	194,470.14	1,122,606.33	477.26
Taiwan	292,872.22	663,716.04	126.62
Singapore	117,338.02	539,176.63	359.51
Malaysia	118,980.68	325,290.26	173.4
Indonesia	22,997.86	211,692.97	820.49
Thailand	35,950.40	197,129.36	448.34
Philippines	20,606.24	102,852.74	399.13
China	333,356.27	3,694,347.97	1008.23
Hong Kong	506,072.92	2,654,416.06	424.51

Source : Bloomberg

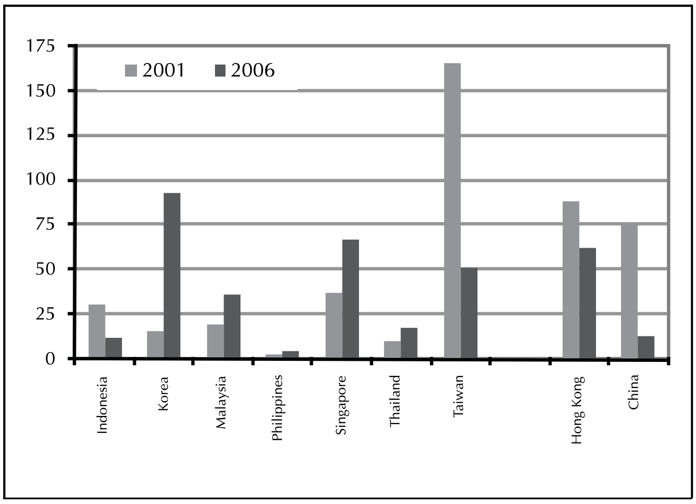
Table 2.4. Domestic Stock Market Capitalization (as percentage of GDP)

	2003	2004	2005	2006
Korea	53.23	61	88.23	92.93
Taiwan	137.95	147.78	187.85	182.95
Singapore	182.74	196.12	311.78	275.3
Malaysia	n.a.	n.a.	136.77	159.92
Indonesia	23.24	28.44	47.85	37.68
Thailand	80.74	69.42	78.2	66.81
Philippines	28.8	32.83	68.93	57.98
China	111.68	98.38	66.4	81.64
Hong Kong	n.a.	n.a.	n.a.	n.a.

Source : World Federation of Exchanges

There is a growing importance of equity markets in financing the economies in the region. Despite enormous amount of market capitalization in China, some SEACEN economies have higher market capitalization as a ratio to GDP, i.e., Singapore, Taiwan, Malaysia and Korea. The trends are also reflected in the number of Initial Public Offering (IPO) activities (Figure 2.6) which move comparably to those in China's and Hong Kong's equity markets. However, there is still opportunity for additional new stock issuance in other member economies to narrow the gap with Korea and Singapore. The room to develop equity markets is wide, considering the economic potency of the region. Authorities may spur the pace through tax incentives and improvement in infrastructure.

Figure 2.6. Number of IPO



Source : World Federation of Exchanges

More efforts should be put into deepening corporate bond markets. Currently, Korea, Malaysia, and Taiwan have substantial corporate bond markets in the region. However, most economies are still dominated by the government bond market due to the increase of government bond issuance to finance the economic crises in 1997/98. In the meantime, the ratings of corporate bonds in the region are still relatively lackluster. The slower development of bond markets in some SEACEN economies also owes to the lack of yield curve formation as a benchmark for corporate bonds trading.

Strong and stable macroeconomic foundations in the region have provided a healthy environment for the bond markets to grow. Singapore's bond market in particular, is flourishing due to better infrastructure which include trading platforms, custody and clearing settlement system, as well as the development of the derivative transactions and the availability of benchmark for bond trading. As an incentive, Singapore implements tax free status for qualified debt securities. Other countries such as Thailand and Malaysia use more operational strategies to develop the bond market involving repo and derivative instruments, the establishment of primary dealer, the improvement of information and trading system, and the integration of depository system and clearing settlement. Thailand established the Bond Lending Unit and Collateral Management Unit, while Malaysia is facilitating securities borrowing and lending as well as forming the sovereign benchmark yield curve.

The outlook for the bond market is positive. The future of bond markets in SEACEN economies is promising, considering the support from sound macroeconomic fundamentals. The institutional base is also growing along with the investor base. At the regional level, it is important to make concerted efforts to develop a regional clearing and settlement system, mobilizing regional resources through Asian bond funds (ABF), creating Asian bond standards, and harmonizing the bond market rules and regulations.

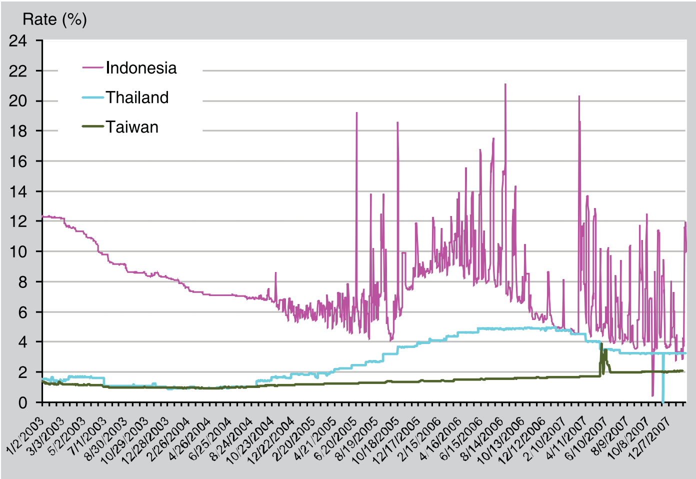
2.2.2 Money Market

On average, financial deepening in the money market in SEACEN economies is still at low level, though it has picked up recently. In the domestic money market, particularly in the inter-bank money market, more endeavors are needed to increase financial deepening both in terms of market volume and stability. Financial deepening in domestic foreign exchange markets also reveal similar findings. Although some economies have more advanced market, the liquidity of the market is still an issue.

Size of the domestic interbank over-night money market in SEACEN economies is relatively small. One important financial deepening indicator in the domestic money market i.e., the volatility of (uncollateralized) inter-bank money market rate, has stabilized moderately, with the exception of Indonesia and the Philippines. Nevertheless, in terms of volume, money market transactions of some SEACEN economies have grown, albeit far below the volume in China (Figure 2.8). In 2007, the average transaction volume amounted to USD10 billion per day or six times higher than that of last year.

Efforts to deepen the money market are mostly initiated by the central banks through the enhancement of monetary operation. These efforts are made with the central bank's intention to strengthen monetary policy transmission and signaling effect, a case in point being Bank Indonesia early this year. The task has become more challenging nowadays with the presence of the global excess liquidity problem. This poses an opportunity for the central banks of SEACEN economies to have a set of solutions to absorb or channel the excess liquidity.

Figure 2.7. Inter-bank Money Market Interest Rates



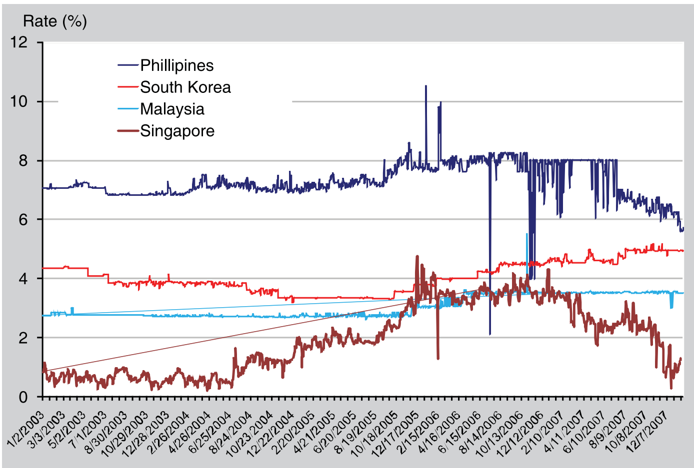
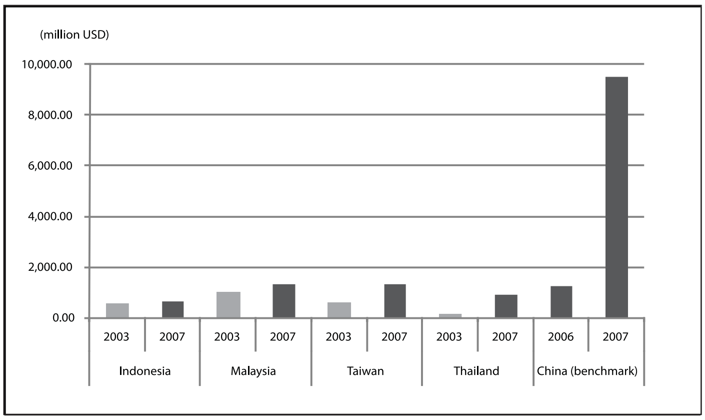


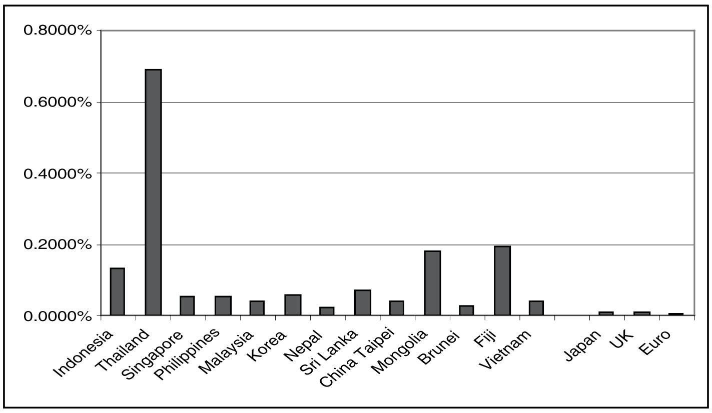
Figure 2.8 Volume of Interbank O/N Call Money



Foreign exchange markets in SEACEN economies appear to remain thin and shallow, except in Singapore and to a lesser degree in Korea and Taiwan. The condition adds to the probability of a triggering of instability in the event of a drastic shift in global investors' risk-appetite. Using the bid-ask spread currency as suggested in Ho and McCauley (2003), it is shown that market liquidity in SEACEN economies is relatively low. This is shown from the bid-ask spread that is wider than those of developed economies i.e., Japan, UK and Euro (Figure 2.9). Another indicator to measure the depth of the market i.e., domestic foreign exchange market turnover, on average also shows similar results. The exception is the volume of foreign exchange market in Singapore, which is well explained by the financial centre function of Singapore's market. Although by different measures, some SEACEN economies indicate bigger volumes than that of China, the volume is still very marginal compared to advanced markets (Figure 2.10 and 2.11).

The evidence reflects potential room to develop foreign exchange markets of SEACEN economies. The condition becomes a challenge for financial deepening in the foreign exchange markets within the region. One notable condition is the lack of sizeable amount of market

Figure 2.9. Bid-Ask Spread Currency

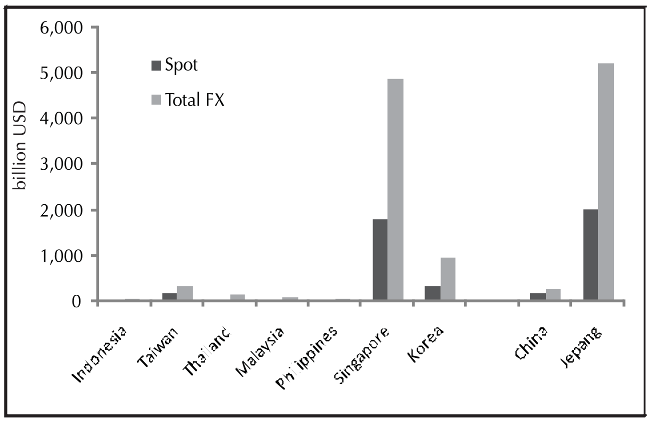


volume, both in spot and derivative transactions. Evidence also indicates that foreign exchange markets in some economies are more related to financial transactions compared to those related to export and import of goods. Again, Singapore is an exceptional case. Nevertheless, the effort of financial deepening in domestic foreign exchange markets in most economies in the region should address the balance with the objective of safeguarding currency stability.

3. Financial Deepening and Monetary Policy

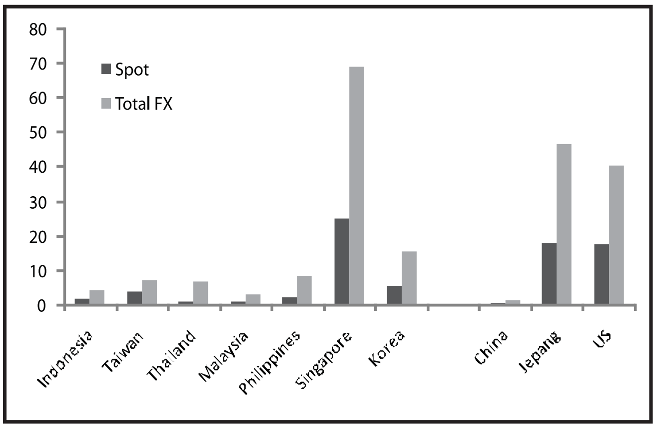
The interaction between financial deepening and monetary policy can be evaluated in two aspects. Firstly, it relates to the impact of financial deepening to monetary stability, i.e., attaining price stability. It goes further, that financial deepening may also enhance financial stability through its diversification impact on products and size of volume, as well as institutional development. Secondly, it corresponds to the impact of financial deepening on monetary policy formulation. Inevitably, financial deepening influences the monetary policy transmission, hence the effectiveness of monetary policy. Nevertheless, financial deepening has raised concerns on downside risks and policy dilemma of maintaining macro stability directly and indirectly. Directly, financial deepening may induce the possibility of sudden capital reversal, while indirectly the inflows may boost domestic

Figure 2.10. Monthly Turnover of Domestic Foreign Exchange Market



Source: BIS Annual Survey, April 2007

Figure 2.11. Ratio of Monthly Domestic Foreign Exchange Turnover to Total Trade



Source: BIS Annual Survey, April 2007; National Trade Figures on December 2007 demand pressure on inflation. Hence, the process of financial deepening may add to the complication of monetary policy formulation.

Unless undertaken carefully, risks to financial stability are seen to emerge from four major trends in financial deepening. These include (a) an imbalance of growth between the financial sector and the real economy, (b) a change in the mode of financial operations due to financial deepening, (c) emergence of a globally integrated financial system, and (d) evolution of sophisticated financial instruments and attendant risks. Hence, the combination of monetary and prudential measures is necessary to ensure that financial deepening and rapid credit growth to meet the requirements of a growing economy do not threaten macro-economic and financial stability.

In line with its positive effect on economic growth, financial deepening also has a reinforcing linkage with macro stability. Broader access to financial services and the availability of funds, as alluded to earlier, reinforces the positive impact of financial deepening on economic growth. In the process, financial deepening also supports the financial system to diversify risks and any imbalance that inhibit financial development, hence inducing macro stability. Recent studies reveal that there exists a bi-directional causality between financial deepening and macroeconomic stability. Dehesa (2007) suggested that an important condition for financial deepening to thrive is to attain macroeconomic stability thus giving certainty for business and banking intermediary function.

The financial deepening process has attracted higher portfolio investment and contributed to enlarged money market volume. Along with global surplus, SEACEN economies have experienced the surge in portfolio investment which promoted financial market volume (Figure 3.1). Most SEACEN economies, particularly Singapore, Korea, Malaysia and Thailand, have recorded strong performances in the equity market. The trend of inflows and improvement of financial market is expected to stay in the near future, owing to promising economic prospect and record of macro stability which become pull factors for inflows to the region.

Nevertheless, the direct and indirect impact of financial deepening still poses downside risks for macro stability. Evaluating the fluctuation in exchange rate uncertainty (Figure 1.6 and 1.7) and evidence on still volatile exchange rate in some observed economies (Figure 3.2), sudden capital reversal is still a concern in SEACEN economies. Recent turmoil in financial markets due to the uncertain impact of the sub-prime mortgage crisis in the US is an example of the two-edged sword

Figure 3.1. Portfolio Account per GDP (%yearly average)

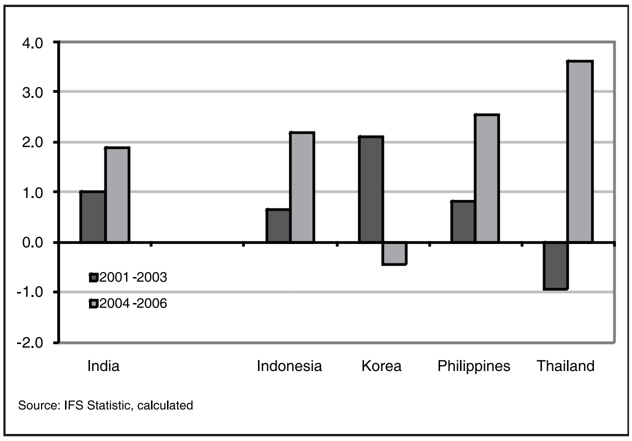
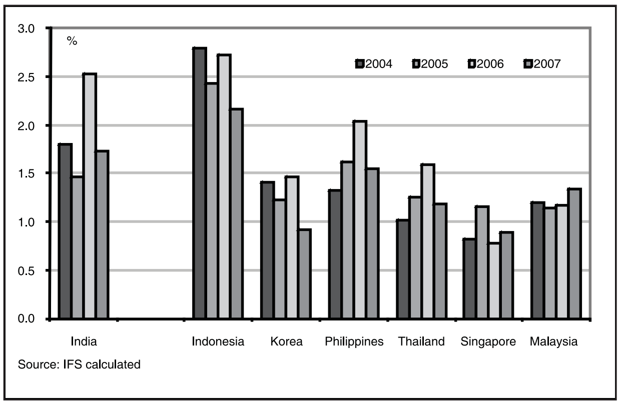


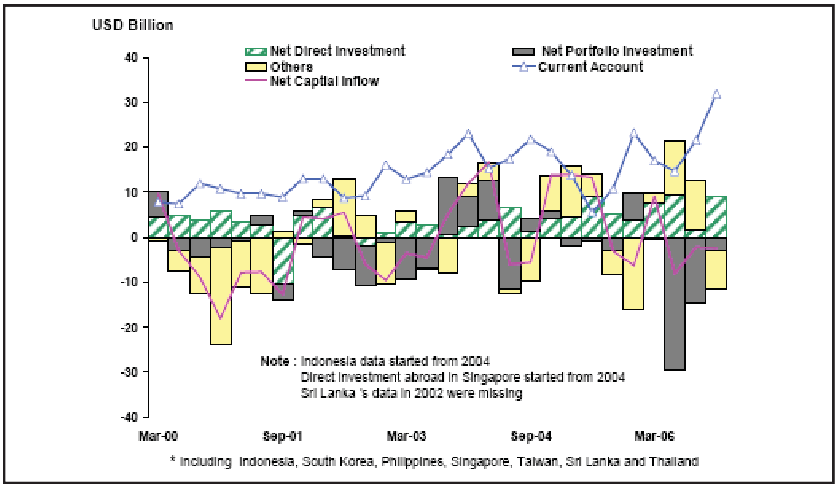
Figure 3.2. Monthly Volatility (Standard Deviation)



characteristics of financial flows. The dominance of capital flows in determining exchange rates is due to the high portion of portfolio investment in total net flows (Figure 3.3) and in gross capital outflows (Figure 3.4). If not managed, the shock would easily propagate into turmoil in financial markets and threaten monetary stability. Although recent evidence has not shown any concern on inflation pressure (Figure 3.5), the rise of domestic demand due to financial support may potentially threaten macroeconomic stability, especially if demand is not supported by comparable economic capacity. The indirect risk of financial deepening on macroeconomic stability was observed in the 1997 pre-financial crises. Higher economic growth contributed by financial deepening provoked higher inflationary pressures at that time.

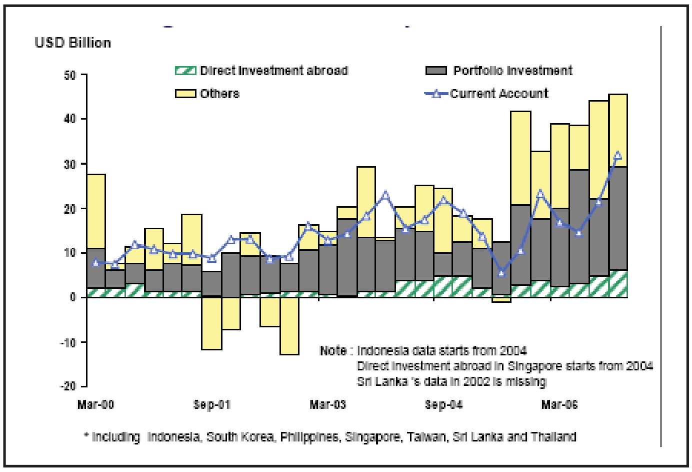
With respect to monetary policy formulation, development in financial deepening may also influence both monetary policy transmission and the effectiveness of monetary policy. This argument is parallel to Visco (2007) who shows that several conditions in the financial system could potentially influence monetary policy

Figure 3.3. Net Capital Inflows and Current Account in Some SEACEN Economies



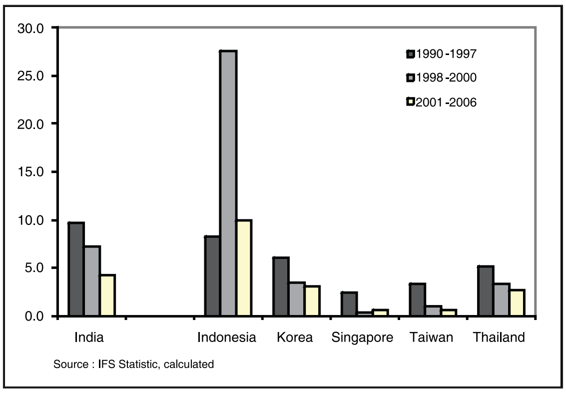
Source: SEACEN Background Note, July 2007

Figure 3.4. Gross Capital Outflows in Some SEACEN Economies



Source: SEACEN Background Note, July 2007

Figure 3.5. Average Inflation (%)



transmission. Some aspects of financial development such as the uses of derivatives – futures, options, interest rate swaps etc -, the changing role of banks, the increase of new financial market players and the rise of international financial integration has complicated monetary policy formulation. The speed and strength of the channels of monetary policy transmission to the economy will depend on financial market and institutions. Any change in the financial market would determine the six channels of monetary transmission, i.e., interest rate, credit, exchange rate, balance-sheet, asset prices, and expectations, hence its effectiveness to affect inflation. Recently, stronger transmission from the interest rate channel has occurred including in SEACEN economies. In addition, the exchange rate dynamics also play a role in monetary transmission mechanism which is characteristic of the small open economies of most SEACEN countries. These variables to some extent have contributed to inflation dynamics in SEACEN economies.

Many episodes of currency and financial crises show that macroeconomic stability requires a healthy and sound financial sector. Recent developments, including the sub-prime mortgage impact, have strengthened the argument that financial deepening plays an important role in affecting the effectiveness of monetary policy in safeguarding monetary stability. In Franklin and Carletti (2007), there are two basic arguments on this, first to ensure an effective and efficient monetary policy transmission and second to mitigate the contagion effect on the domestic economy. When they work perfectly, financial markets will generally act as shock absorbers due to efficient risk diversification among economic agents. Meanwhile, when market failure exists, the financial system can act as an amplifier.

Historically, the major stages in the development of financial markets and institutions have created novel sources of instability and have ushered in prolonged periods of learning on how to regulate and stabilize the system (Axel, 2007). Experience has shown that many financial crisis episodes stemmed from financial sector liberalization with no proper prudential regulation. The Asian crisis is an example of a financial crisis due to the lack of banking prudential regulations.

The same story is also repeated in the sub-prime mortgage crisis in the US, yet in a different industry i.e., investment funds. Nevertheless, Borio (2007) reminds that imperfect information in financial market always exists, despite efforts to improve risk management and institutional arrangement. Axel (2007) adds that the occurrence of a crisis is an endogenous property of the world financial system as we have let it evolve and will not be easily removed only by the setting of regulations. In addition, globalization has also allowed for more spill-over through the contagion effect of irrational individual behavior.

To sum, the process of financial deepening amid rapid global integration poses daunting policy challenges. Along with the positive effects of financial deepening, the process also causes downside risks emanating from the potential sudden capital reversal and inflation pressure. It is important for SEACEN economies to have measures that balance the positive effect and the potential pressures, among others, through proper prudential regulation and capital flow management amid the priority to achieve and maintain macro stability.

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Financial Deepening, Monetary Stability and Economic Growth in the SEACEN Region

Indicators	Brunei Darussalam					
Financial Deepening	***1990***	***1995***			***2006***	***2007***
M2 to GDP Ratio (%)	na	na			45.0	na
M3 to GDP Ratio (%)	na	na			na	na
Outstanding Amount of Bonds to GDP Ratio (%)	na	na			65.0	na
Market Capitalization of Stocks to GDP Ratio (%)	na	na			na	na
Average Daily Foreign Exchange Transaction (USD million)	na	na			na	na
Total Financial Assets to GDP Ratio (%)	na	na			88.7	na
Monetary Stability	***1990***	***1995***			***2006***	***2007***
M2 Growth Rate (annual % change)	na	na			-3.4	11.0
M3 Growth Rate (annual % change)	na	na			na	na
Central Bank Policy Rate (per annum, end of period)	na	na			na	na
Exchange Rate (National Currency per USD, annual average)	1.8125	1.4174			1.5589	1.5071
Exchange Rate (National Currency per SDR, annual average)	na	na			2.34	2.31
International Reserves (USD million)	na	na			523.3	na
Imports Coverage of International Reserves (in months)	na	na			na	na
Inflation and Economic Growth Rates	***1990***	***1995***			***2006***	***2007***
Inflation Rate (annual % change)	na	na			-0.2	na
Real GDP Growth Rate (annual % change)	na	na			5.1	na
Key Policies and Measures Implemented Recently	*Financial Deepening related Policies and Measures* • Short term Sukuk Al-Ijarah Government bond issued in 2006 • Issuance of the bond to date totalled B$ 1,050 million *Monetary Stability related Policies and Measures* • In 2007, on the occasion of the 40th Anniversary of the Currency Interchageability Agreement between Brunei and Singapore, commitments renewed to continue the agreement to strengthen monetary stability					

Source: Response to the SEACEN Questionnaire supplied by the respective central banks/monetary authorities
Note: The definition and or components of indicator may differ from country to country.

Cambodia						Fiji					
1990	***1995***	***2000***	***2005***	***2006***	***2007***	***1990***	***1995***	***2000***	***2005***	***2006***	***2007***
na	6.2	12.6	18.4	20.5	26.0	64.7	55.6	42.2	50.2	54.9	59.7
na	na	na	na	na	na	na	na	na	na	na	na
na	na	na	na	na	na	na	12.0	18.6	8.4	6.6	na
na	na	na	na	na	na	na	na	6.8	20.4	14.8	na
na	na	0.09	0.15	0.16	0.63	na	8.6	6.3	12.8	13.8	13.0
na	7.9	9.5	14.6	17.9	26.8	na	na	na	na	na	na
1990	***1995***	***2000***	***2005***	***2006***	***2007***	***1990***	***1995***	***2000***	***2005***	***2006***	***2007***
na	40.7	28.3	16.1	38.2	62.9	18.1	4.7	-2.1	15.0	19.8	10.4
na	na	na	na	na	na	na	na	na	na	na	na
na	na	na	6.0	6.0	6.0	na	na	3.0	2.25	4.25	4.25
na	2464	3854	4097	4107	4073	1.4809	1.4064	2.1282	1.6915	1.7313	1.6106
na	na	na	6048	6054	6231	2.0078	2.1309	2.8035	2.4975	2.5466	2.4633
na	181.7	484.1	915.2	1096.7	1615.6	260.9	349.0	475.6	471.7	529.6	616.7
na	1.5	2.5	2.3	2.3	2.4	3.4	3.7	5.3	2.9	2.8	3.2
1990	***1995***	***2000***	***2005***	***2006***	***2007***	***1990***	***1995***	***2000***	***2005***	***2006***	***2007***
na	1.1	-0.7	5.8	4.7	5.8	9.5	2.2	3.0	2.7	3.1	4.3
na	6.4	8.8	13.5	10.8	9.6	3.6	2.5	-1.7	FTR0.7	3.6	-3.9

Financial Deepening related Policies and Measures (Cambodia)

- Bank re-licensing programme introduced in 2000
- Capital requirement for banks increased from 10 billion KHR to 50 billion KHR
- Banking regulatory and supervisory capacity enhanced to reinforce the soundness of banking activities
- Credit information sharing system introduced
- Access to microfinance services enhanced

Financial Deepening related Policies and Measures (Fiji)

- Financial Intelligence Unit established in 2003
- Reserve Bank coordinated with commercial banks to provide banking services to the rural areas in 2004
- Financial transactions reporting (   ) Act enforced in 2006
- FTR regulation came into effect in 2007

Monetary Stability related Policies and Measures (Cambodia)

- Foreign exchange intervention carried out to stabilize exchange rate

Monetary Stability related Policies and Measures (Fiji)

- Since 2006, monetary policy strategies focused on protecting Fiji's external financial position
- The official interest rate, minimum lending rate and RBF statutory reserve deposit ratio raised to address the high credit growth
- A credit ceiling on individual banks introduced in December 2006
- Some of the capital control measures relaxed in late 2007

Indicators	Indonesia					
Financial Deepening	***1990***	***1995***	***2000***	***2005***	***2006***	***2007***
M2 to GDP Ratio (%)	43.3	49.0	53.8	43.4	41.4	41.5
M3 to GDP Ratio (%)	na	na	na	na	na	na
Outstanding Amount of Bonds to GDP Ratio (%)	na	na	na	14.41	12.54	12.07
Market Capitalization of Stocks to GDP Ratio (%)	na	33.78	18.70	28.88	37.40	50.24
Average Daily Foreign Exchange Transaction (USD million)	na	2456	987	2171	2280	3232
Total Financial Assets to GDP Ratio (%)	na	na	na	na	na	na
Monetary Stability	***1990***	***1995***	***2000***	***2005***	***2006***	***2007***
M2 Growth Rate (annual % change)	44.2	27.6	15.6	16.4	14.9	18.9
M3 Growth Rate (annual % change)	na	na	na	na	na	na
Central Bank Policy Rate (per annum, end of period)	na	na	14.53	12.75	9.75	8.00
Exchange Rate (National Currency per USD, annual average)	1843	2244	8397	9713	9167	9140
Exchange Rate (National Currency per SDR, annual average)	2704	3407	11094	14340	13482	14009
International Reserves (USD million)	8661	14674	29394	34724	42586	56920
Imports Coverage of International Reserves (in months)	4.5	4.1	6.2	4.0	4.3	5.7
Inflation and Economic Growth Rates	***1990***	***1995***	***2000***	***2005***	***2006***	***2007***
Inflation Rate (annual % change)	9.9	9.0	9.4	17.1	6.6	6.6
Real GDP Growth Rate (annual % change)	7.2	8.2	4.9	5.7	5.5	6.3
Key Policies and Measures Implemented Recently	*Financial Deepening related Policies and Measures* • Banking infrastructure strengthened and prudential banking practices enhanced • Trading of government bonds in secondary market started in 2000 • Deposit Insurance Agency established in 2005, and the Financial System Stability Forum established in 2007 • Jakarta Stock Exchange and Surabaya Stock Exchange merged in 2007 to improve the capital market efficiency *Monetary Stability related Policies and Measures* • Various measures introduced to enhance the effectiveness of Inflation Targeting Framework • Developing policy analysis tools to embrace the ASEAN Economic Community 2015					

Source: Response to the SEACEN Questionnaire supplied by the respective central banks/monetary authorities
Note: The definition and or components of indicator may differ from country to country

Korea						Malaysia					
1990	*1995*	*2000*	*2005*	*2006*	*2007*	*1990*	*1995*	*2000*	*2005*	*2006*	*2007*
70.0	84.8	119.5	122.6	127.0	133.9	70.5	89.4	103.9	119.6	127.1	127.5
93.3	119.4	152.6	166.4	171.6	179.3	96.9	122.2	133.6	129.5	132.8	133.2
27.4	31.6	73.4	89.1	91.8	92.9	58.2	46.3	68.8	81.1	79.3	89.1
42.3	35.4	37.2	89.6	91.6	117.6	111	254	125	134	148	177
na	5511	8860	22340	30160	42590	na	na	na	na	na	na
109.4	105.2	164.3	254.4	265.9	300.4	na	na	na	na	na	na
1990	*1995*	*2000*	*2005*	*2006*	*2007*	*1990*	*1995*	*2000*	*2005*	*2006*	*2007*
27.9	19.7	2.2	6.9	8.3	11.2	12.8	24.0	5.3	15.6	17.1	9.5
29.9	19.9	5.6	7.0	7.9	10.2	18.2	22.3	5.1	8.4	13.0	9.5
na	na	5.25	3.75	4.50	5.00	7.59	6.76	3.25	3.00	3.50	3.50
708.0	771.0	1130.6	1024.1	955.1	929.2	2.7044	2.5081	3.8000	3.7871	3.6682	3.4375
960.3	1170.0	1491.5	1513.0	1404.9	1422.1	3.6565	3.8035	5.0125	5.5900	5.3974	5.2600
14822	32712	96198	210391	238956	262224	10024	25112	28708	70199	82457	101350
2.3	2.5	6.0	8.0	7.7	7.3	4.1	4.0	4.3	7.7	7.8	8.5
1990	*1995*	*2000*	*2005*	*2006*	*2007*	*1990*	*1995*	*2000*	*2005*	*2006*	*2007*
8.6	4.5	2.3	2.8	2.2	2.5	3.1	3.2	1.6	3.1	3.6	2.0
9.2	9.2	8.5	4.2	5.0	4.9	9.0	9.8	8.9	5.0	5.9	6.3

Korea	Malaysia
Financial Deepening related Policies and Measures	*Financial Deepening related Policies and Measures*
• Free-floating exchange rate system adopted and foreign investment regulations on all listed bonds abolished in December 1997 • Ceiling on foreign investment in Korean equities entirely abolished in May 1998 • Financial Holding Company Act enacted in October 2000 to permit universal banking practice • Capital Market and Financial Investment Business Act enacted in August 2007	• Various measures undertaken to strengthen the financial institutions' expertise and capabilities • Various measures implemented to diversify the financial landscape via structural enhancements and to promote new sources of financing • Progressive deregulation and liberalisation of the financial sector made to improve access to financial services for all segments of society
Monetary Stability related Policies and Measures	*Monetary Stability related Policies and Measures*
• Call rate target adjusted upward by 25 basis points in July and again in August 2007 • Monetary policy framework reformed effective from 7 March 2008 by changing the policy rate from call rate to BOK base rate • Under the reform, reserve requirement scheme and regularisation of OMO improved and standing facilities introduced	• New Interest Rate Framework implemented in April 2004 by introducing overnight policy rate • Conduct of monetary policy enhanced by widening and diversifying a range of monetary instruments • Managed float exchange rate against a basket of currencies adopted in July 2005 • Surveillance on foreign exchange flows strengthened

Indicators	Mongolia					
Financial Deepening	***1990***	***1995***	***2000***	***2005***	***2006***	***2007***
M2 to GDP Ratio (%)	53.8	18.5	25.4	41.02	41.4	52.7
M3 to GDP Ratio (%)	na	na	na	na	na	na
Outstanding Amount of Bonds to GDP Ratio (%)	na	na	na	na	na	0.5
Market Capitalization of Stocks to GDP Ratio (%)	na	na	3.9	2.0	3.5	15.7
Average Daily Foreign Exchange Transaction (USD million)	na	na	na	92.9	79.5	172.2
Total Financial Assets to GDP Ratio (%)	na	na	na	na	na	na
Monetary Stability	***1990***	***1995***	***2000***	***2005***	***2006***	***2007***
M2 Growth Rate (annual % change)	na	32.9	17.6	34.6	34.7	56.3
M3 Growth Rate (annual % change)	na	na	na	na	na	na
Central Bank Policy Rate (per annum, end of period)	na	72-150	8.60	4.75	6.42	9.87
Exchange Rate (National Currency per USD, annual average)	na	473.62	1097.00	1205.08	1177.25	1170.38
Exchange Rate (National Currency per SDR, annual average)	na	708.53	1426.96	1776.05	1734.76	1794.49
International Reserves (USD million)	63.9	114.4	187.7	430.1	925.8	1195.4
Imports Coverage of International Reserves (in months)	na	2.0	3.0	3.0	6.0	6.0
Inflation and Economic Growth Rates	***1990***	***1995***	***2000***	***2005***	***2006***	***2007***
Inflation Rate (annual % change)	na	53.1	8.1	9.5	6.0	15.1
Real GDP Growth Rate (annual % change)	-2.5	6.3	1.1	7.3	8.6	9.9
Key Policies and Measures Implemented Recently	*Financial Deepening related Policies and Measures* • All the commercial banks privatised • Legel environment on loan collateral and real estate registration improved • Measures taken to enhance the accounting standards • Guideline issued to banks on assessment of their operational risks • New regulations implemented to refine corporate governance system of banks *Monetary Stability related Policies and Measures* • To tighten the monetary policy, interest rate on Central Bank Bills increased three times in 2007 • Reserve requirement of banks increased from 5 percent to 5.5 percent in 1 January 2008					

Source: Response to the SEACEN Questionnaire supplied by the respective central banks/monetary authorities
Note: The definition and or components of indicator may differ from country to country.

Myanmar						Nepal					
1990	*1995*	*2000*	*2005*	*2006*	*2007*	*1990*	*1995*	*2000*	*2005*	*2006*	*2007*
28.1	11.9	29.5	26.1	23.9	22.4	31.7	37.0	49.1	51.0	53.7	55.0
na	na	na	na	na	na	na	na	na	na	na	na
na	0.003	2.47	0.83	0.26	0.28	12.43	11.71	8.78	0.70	0.33	1.06
na	na	na	na	na	na	na	5.9	11.4	10.4	15.0	26.0
na	na	na	na	na	na	na	na	na	na	na	na
41.6	32.5	25.4	25.1	23.7	26.9	na	na	na	na	110.5	111.9
1990	*1995*	*2000*	*2005*	*2006*	*2007*	*1990*	*1995*	*2000*	*2005*	*2006*	*2007*
36.0	119.3	32.3	33.5	23.9	27.5	18.6	16.1	21.8	8.3	15.6	14.0
na	na	na	na	na	na	na	na	na	na	na	na
11.00	12.50	10.00	10.00	12.00	12.00	13.00	11.00	7.50	5.50	6.25	6.25
6.3456	5.6318	6.4146	5.9622	5.7194	5.3676	32.54	49.94	69.07	72.06	72.32	70.49
8.5085	8.5085	8.5085	8.5085	8.5085	8.5085	na	na	na	na	na	na
na	na	na	na	na	na	398.3	854.0	1333.2	1846.4	2227.2	2546.0
na	na	1.5	3.4	3.5	5.3	6.3	6.7	9.0	8.8	9.6	8.5
1990	*1995*	*2000*	*2005*	*2006*	*2007*	*1990*	*1995*	*2000*	*2005*	*2006*	*2007*
24.5	22.4	15.6	3.8	10.7	26.1	9.7	7.7	3.5	4.5	8.0	6.4
3.7	7.5	10.9	13.6	13.6	12.7	4.6	3.5	6.1	3.1	2.8	2.5

Myanmar	Nepal
Financial Deepening related Policies and Measures	*Financial Deepening related Policies and Measures*
• Merger of 3 private co-operative banks allowed in 2004 • License of 2 private banks revoked in 2005 due to their failure to comply with the existing financial institutions law • Regulatory and supervisory controls of the Central Bank strengthened in 2005	• A comprehensive financial sector reform strategy embarked in November 2000 • New Act for Nepal Rastra Bank enacted in 2002 • Unified directives issued to banks and financial institutions in 2005 • Consolidated Act to govern banks and financial institutions enacted in 2006 • Licensing policy to establish banks and financial institutions revised in 2007
Monetary Stability related Policies and Measures	
• Central bank rate reduced from 12 percent to 10 percent and also the interest rate on loans and deposits reduced in 2000 • Central bank rate raised to 12 percent and deposit and lending rate also raised in 2006 • Minimum reserve requirement revised to 10 percent of total deposits with effect from April 2007	• Open market operations strengthened for liquidity management • Implemented weekly monitoring of excess liquidity of commercial banks based on Liquidity Monitoring and Forecasting Framework

Indicators	Papua New Guinea					
Financial Deepening	***1990***	***1995***	***2000***	***2005***	***2006***	***2007***
M2 to GDP Ratio (%)	na	na	na	na	na	na
M3 to GDP Ratio (%)	43.4	26.1	23.9	33.2	41.3	48.3
Outstanding Amount of Bonds to GDP Ratio (%)	na	na	na	na	na	na
Market Capitalization of Stocks to GDP Ratio (%)	na	na	na	na	na	na
Average Daily Foreign Exchange Transaction (USD million)	12168	9980	14968	19178	21723	28431
Total Financial Assets to GDP Ratio (%)	43.3	33.4	38.5	33.3	41.4	48.3
Monetary Stability	***1990***	***1995***	***2000***	***2005***	***2006***	***2007***
M2 Growth Rate (annual % change)	na	na	na	na	na	na
M3 Growth Rate (annual % change)	5.3	11.1	7.1	29.5	38.9	27.3
Central Bank Policy Rate (per annum, end of period)	na	na	15.5	6.0	6.0	6.0
Exchange Rate (National Currency per USD, annual average)	0.9553	1.2762	2.7607	3.1032	3.0593	2.9628
Exchange Rate (National Currency per SDR, annual average)	1.2999	1.9814	3.5817	4.5228	4.4964	4.5475
International Reserves (USD million)	397.2	269.7	329.5	764.8	1433.8	2086.6
Imports Coverage of International Reserves (in months)	4.3	2.6	5.2	6.0	8.5	11.3
Inflation and Economic Growth Rates	***1990***	***1995***	***2000***	***2005***	***2006***	
Inflation Rate (annual % change)	7.0	17.3	15.6	1.7	2.9	3.2
Real GDP Growth Rate (annual % change)	-3.0	-3.4	-2.5	3.4	2.6	6.2
Key Policies and Measures Implemented Recently	*Financial Deepening related Policies and Measures* • Structural reforms in financial system commenced in 2000 • New monetary policy stance supported a low interest rate environment in the financial system from 2003 *Monetary Stability related Policies and Measures* • Enactment of Central Banking Act in 2000 enhanced the independence of Central Bank in monetary policy management • A bi-annual monetary policy statement released by the Governor at the end of January and July each year • Kina Facility Rate announced on the first Monday of each month to indicate the stance of policy					

Source: Response to the SEACEN Questionnaire supplied by the respective central banks/monetary authorities
Note: The definition and or components of indicator may differ from country to country.

<table>
<tr><th colspan="6">Philippines</th><th colspan="6">Singapore</th></tr>
<tr><td>*1990*</td><td>*1995*</td><td>*2000*</td><td>*2005*</td><td>*2006*</td><td>*2007*</td><td>*1990*</td><td>*1995*</td><td>*2000*</td><td>*2005*</td><td>*2006*</td><td>*2007*</td></tr>
<tr><td>na</td><td>na</td><td>na</td><td>42.6</td><td>46.9</td><td>46.5</td><td>92.6</td><td>85.3</td><td>106.9</td><td>110.2</td><td>120.9</td><td>122.4</td></tr>
<tr><td>na</td><td>na</td><td>na</td><td>43.0</td><td>47.6</td><td>47.0</td><td>123.5</td><td>114.5</td><td>114.4</td><td>113.2</td><td>123.9</td><td>126.1</td></tr>
<tr><td>na</td><td>na</td><td>na</td><td>na</td><td>na</td><td>na</td><td>na</td><td>na</td><td>31.0</td><td>68.6</td><td>72.1</td><td>na</td></tr>
<tr><td>15.0</td><td>81.1</td><td>106.7</td><td>109.4</td><td>118.9</td><td>119.7</td><td>128.8</td><td>244.8</td><td>261.4</td><td>214.6</td><td>271.7</td><td>319.2</td></tr>
<tr><td>2.76</td><td>40.33</td><td>133.46</td><td>358.38</td><td>459.95</td><td>529.09</td><td>79716</td><td>109245</td><td>94332</td><td>170083</td><td>189512</td><td>262259</td></tr>
<tr><td>na</td><td>na</td><td>na</td><td>na</td><td>na</td><td>na</td><td>na</td><td>na</td><td>na</td><td>na</td><td>na</td><td>na</td></tr>
<tr><td>*1990*</td><td>*1995*</td><td>*2000*</td><td>*2005*</td><td>*2006*</td><td>*2007*</td><td>*1990*</td><td>*1995*</td><td>*2000*</td><td>*2005*</td><td>*2006*</td><td>*2007*</td></tr>
<tr><td>na</td><td>na</td><td>na</td><td>9.8</td><td>22.1</td><td>9.4</td><td>20.0</td><td>8.5</td><td>-2.0</td><td>6.2</td><td>19.4</td><td>13.4</td></tr>
<tr><td>na</td><td>na</td><td>na</td><td>10.3</td><td>22.7</td><td>9.0</td><td>16.2</td><td>8.7</td><td>-1.8</td><td>6.4</td><td>19.1</td><td>14.1</td></tr>
<tr><td>27.26</td><td>10.63</td><td>10.61</td><td>7.05</td><td>7.50</td><td>6.70</td><td>na</td><td>na</td><td>na</td><td>na</td><td>na</td><td>na</td></tr>
<tr><td>24.3105</td><td>25.7144</td><td>44.1938</td><td>55.0855</td><td>51.3143</td><td>46.1484</td><td>1.8125</td><td>1.4174</td><td>1.7239</td><td>1.6646</td><td>1.5889</td><td>1.5071</td></tr>
<tr><td>33.1018</td><td>39.0266</td><td>58.2303</td><td>81.3908</td><td>75.5338</td><td>70.5869</td><td>2.4577</td><td>2.1495</td><td>2.2735</td><td>2.4586</td><td>2.3376</td><td>2.3063</td></tr>
<tr><td>2048.4</td><td>7785.7</td><td>15062.8</td><td>18494.4</td><td>22966.7</td><td>33753.6</td><td>27789</td><td>68819</td><td>80170</td><td>116173</td><td>136261</td><td>162957</td></tr>
<tr><td>1.5</td><td>2.6</td><td>3.5</td><td>3.8</td><td>4.3</td><td>5.9</td><td>5.1</td><td>5.7</td><td>5.7</td><td>5.5</td><td>5.5</td><td>6.0</td></tr>
<tr><td>*1990*</td><td>*1995*</td><td>*2000*</td><td>*2005*</td><td>*2006*</td><td>*2007*</td><td>*1990*</td><td>*1995*</td><td>*2000*</td><td>*2005*</td><td>*2006*</td><td>*2007*</td></tr>
<tr><td>12.3</td><td>6.7</td><td>4.0</td><td>7.7</td><td>6.2</td><td>2.8</td><td>3.4</td><td>1.7</td><td>1.3</td><td>0.5</td><td>1.0</td><td>2.1</td></tr>
<tr><td>3.0</td><td>4.7</td><td>6.0</td><td>4.9</td><td>5.4</td><td>7.3</td><td>9.2</td><td>8.2</td><td>10.1</td><td>7.3</td><td>8.2</td><td>7.7</td></tr>
<tr><td colspan="6">*Financial Deepening related Policies and Measures*</td><td colspan="6">*Financial Deepening related Policies and Measures*</td></tr>
<tr><td colspan="6">• Policies related to entry-exit rules for rural banks, flexible banking schedule, and checkless payment system implemented
• Development of capital and financial markets
• Banks' investment opportunities and services diversified
• New legal frameworks and guidelines for electronic commerce and electronic banking</td><td colspan="6">• Several policy changes announced in 1999 to liberalise commercial banking and upgrade local banks
• Various restrictions removed in 2000 and more flexible regulatory framework adopted in 2002 to further open up access to the securities market
• A number of measures taken to make the Singapore bond market deeper and broader, with greater diversity in terms of issuers and investors</td></tr>
<tr><td colspan="6"></td><td colspan="6">*Monetary Stability related Policies and Measures*</td></tr>
<tr><td colspan="6">• More accommodative policy stance pursued since Q4 of 2007
• SDA facility made available to selected entities since May 2007
• The transparency and communication of monetary policy decisions strengthened</td><td colspan="6">• Monetary policy centred on the management of the exchange rate since 1981
• The Singapore dollar managed against a trade-weighted basket of currencies of major trading partners and competitors
• In October 2007, slop of the policy band increased to allow a slightly faster appreciation of the currency</td></tr>
</table>

Indicators	Sri Lanka					
Financial Deepening	***1990***	***1995***	***2000***	***2005***	***2006***	***2007***
M2 to GDP Ratio (%)	28.1	34.2	32.2	34.8	35.5	na
M3 to GDP Ratio (%)	na	38.9	38.4	43.2	43.0	na
Outstanding Amount of Bonds to GDP Ratio (%)	na	na	na	na	na	na
Market Capitalization of Stocks to GDP Ratio (%)	11.5	16.0	7.1	24.7	30.0	na
Average Daily Foreign Exchange Transaction (USD million)	na	na	na	32.53	49.66	44.10
Total Financial Assets to GDP Ratio (%)	na	na	na	133.0	132.0	na
Monetary Stability	***1990***	***1995***	***2000***	***2005***	***2006***	***2007***
M2 Growth Rate (annual % change)	20.1	19.2	13.0	19.6	20.7	15.6
M3 Growth Rate (annual % change)	na	21.1	12.9	19.1	17.8	16.6
Central Bank Policy Rate (per annum, end of period)	na	na	na	8.75	10.00	10.50
Exchange Rate (National Currency per USD, annual average)	40.06	51.25	75.78	100.5	103.96	110.62
Exchange Rate (National Currency per SDR, annual average)	54.42	77.74	99.90	148.45	153.00	169.37
International Reserves (USD million)	857.0	2902.0	2131.0	4201.0	4005.0	4956.0
Imports Coverage of International Reserves (in months)	3.0	5.1	3.1	5.0	4.1	4.7
Inflation and Economic Growth Rates	***1990***	***1995***	***2000***	***2005***	***2006***	***2007***
Inflation Rate (annual % change)	21.5	7.7	6.2	11.0	10.0	15.8
Real GDP Growth Rate (annual % change)	6.2	5.5	6.0	6.2	7.7	6.7

Key Policies and Measures Implemented Recently

Financial Deepening related Policies and Measures

- Operation of Debt Securities Trading System commenced in 2004
- Finance companies permitted to accept savings deposits in 2005
- Rupee denominated Treasury bond opened to foreigners in 2006
- Approval given to implement a mobile commerce project allowing customers to carry out specified banking transactions through mobile phones in 2007

Monetary Stability related Policies and Measures

- Central bank policy rate increased by 300 basis points from end 2004 to end 2006 and by further 50 basis points in 2007
- Open market operations conducted more aggressively to maintain market liquidity at a level consistent with the monetary policy targets

Source: Response to the SEACEN Questionnaire supplied by the respective central banks/monetary authorities
Note: The definition and or components of indicator may differ from country to country.

Taiwan						Thailand					
1990	*1995*	*2000*	*2005*	*2006*	*2007*	*1990*	*1995*	*2000*	*2005*	*2006*	*2007*
140	177	188	214	217	207	70.0	79.1	102.2	90.7	87.1	na
na	na	na	na	na	na	86.1	107.1	122.7	108.9	104.5	na
6.77	13.32	23.85	47.70	49.52	48.01	na	10.1	33.2	47.4	52.2	57.6
60.63	70.43	81.65	136.48	162.97	171.02	na	81.8	26.0	71.9	64.9	78.2
na	4212	4886	12074	15632	17266	na	2224*	977*	960*	1247*	1091*
na	na	366.3	479.4	485.3	na	na	na	na	141.8	136.7	131.7
1990	*1995*	*2000*	*2005*	*2006*	*2007*	*1990*	*1995*	*2000*	*2005*	*2006*	*2007*
12.85	11.59	7.04	6.22	6.22	4.25	26.7	17.0	3.7	8.2	6.0	na
na	na	na	na	na	na	26.8	19.5	4.1	6.2	5.9	na
7.750	5.500	4.625	2.250	2.750	3.375	na	9.9	1.5	2.7	4.8	3.8
26.890	26.476	31.225	32.167	32.531	32.842	25.6	24.9	40.2	40.3	37.9	34.5
36.484	40.164	41.180	47.522	47.867	50.278	na	37.79	52.88	59.45	55.70	52.90
78064	95911	111370	253290	266148	270311	14273	37027	32661	52066	66985	87455
13.9	9.2	8.1	14.5	13.9	13.0	6.8	6.3	6.3	5.3	6.3	7.5
1990	*1995*	*2000*	*2005*	*2006*	*2007*	*1990*	*1995*	*2000*	*2005*	*2006*	*2007*
4.1	3.7	1.3	2.3	0.6	1.8	5.9	5.8	1.6	4.5	4.7	2.3
5.7	6.5	5.8	4.2	4.9	5.7	17.6	9.2	4.8	4.5	5.1	4.8

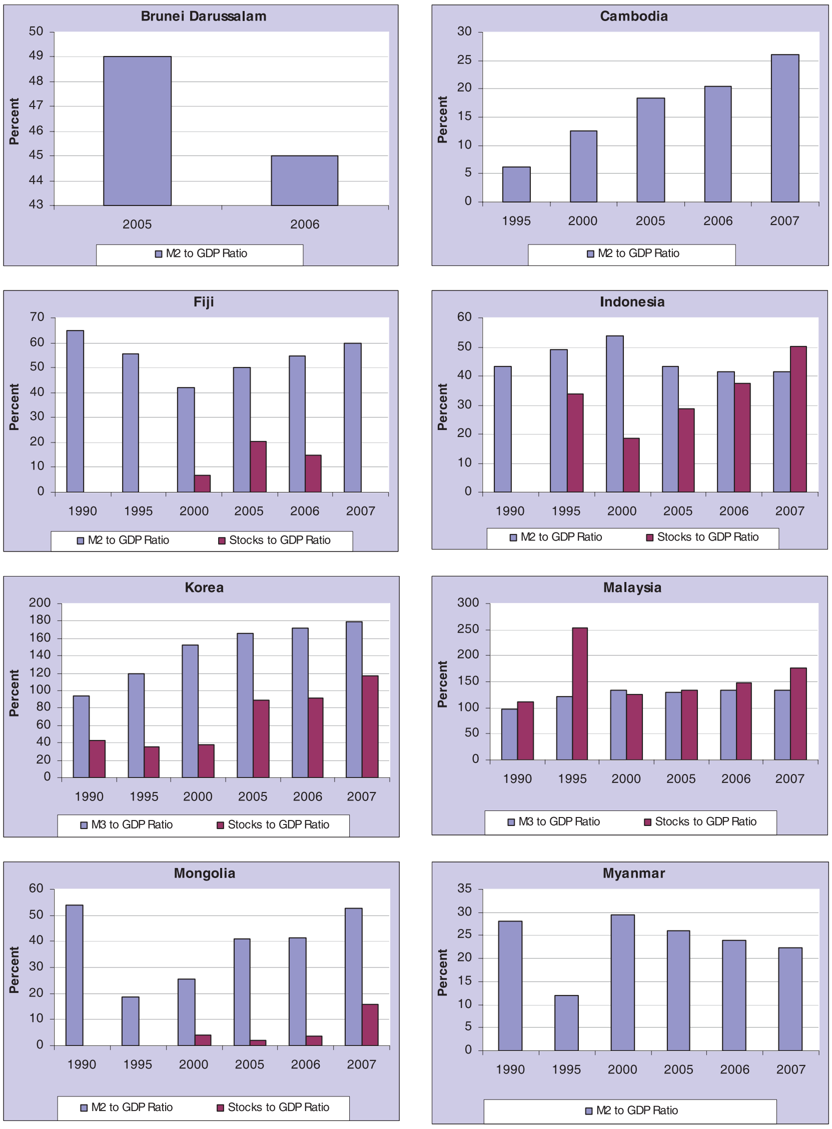
Financial Deepening related Policies and Measures	*Financial Deepening related Policies and Measures*
• Foreigners allowed to invest directly in domestic securities and authorized banks allowed to engage in derivatives trading in 1996 • Listed companies allowed to issue corporate bonds in November 2001 • Financial assets securitization introduced in July 2002 and real estate securitization in July 2003 • Two exchange traded funds listed in June 2003	• The Bond Market Development Master Plan I (2001-2004) implemented to build a better balance in capital market structure and develop a more efficient bond market • The Bond Market Development Master Plan II (2005-2008) implemented to promote the bond market to be one of the three pillars of the Thai financial market in addition to the banking system and equity market
Monetary Stability related Policies and Measures	*Monetary Stability related Policies and Measures*
• Discount rate lowered fifteen times between the end of 2002 and September 2004 and raised fourteen times between October 2004 and the end of January 2008 • Promotion of transparency of the interest rate pricing mechanism continued • Financial institutions required to link prime rates to base rates from January 2006	• The policy rate changed to the 1-day repurchase rate instead of the 14-day repurchase rate effective from the first meeting in 2007 • Policy rate lowered from 4.9375 to 3.5 per annum in five increments during the first half of the year 2007 • Policy rate lowered to 3.25 per annum on 27 February 2008

** Derived by dividing the average monthly figure by 20 working days*

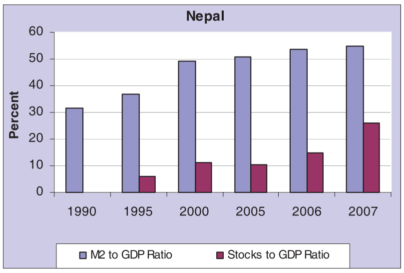
Indicators	Vietnam					
Financial Deepening	***1990***	***1995***	***2000***	***2005***	***2006***	***2007***
M2 to GDP Ratio (%)	na	34.3	58.0	85.1	95.7	116.4
M3 to GDP Ratio (%)	na	na	na	na	na	na
Outstanding Amount of Bonds to GDP Ratio (%)	na	na	na	na	na	na
Market Capitalization of Stocks to GDP Ratio (%)	na	na	na	0.69	22.7	43.0
Average Daily Foreign Exchange Transaction (USD million)	na	na	na	na	na	na
Total Financial Assets to GDP Ratio (%)	na	na	na	na	na	na
Monetary Stability	***1990***	***1995***	***2000***	***2005***	***2006***	***2007***
M2 Growth Rate (annual % change)	53.1	22.6	39.0	29.7	33.6	38.1
M3 Growth Rate (annual % change)	na	na	na	na	na	na
Central Bank Policy Rate (per annum, end of period)	na	na	na	na	na	na
Exchange Rate (National Currency per USD, annual average)	na	na	na	15819	15965	16125
Exchange Rate (National Currency per SDR, annual average)	na	na	na	23429	23604	24259
International Reserves (USD million)	na	na	na	9597	11483	21315
Imports Coverage of International Reserves (in months)	na	na	na	na	na	na
Inflation and Economic Growth Rates	***1990***	***1995***	***2000***	***2005***	***2006***	***2007***
Inflation Rate (annual % change)	67.5	12.7	-0.6	8.4	6.6	12.6
Real GDP Growth Rate (annual % change)	5.1	9.5	6.8	8.4	8.2	8.5
Key Policies and Measures Implemented Recently	*Financial Deepening related Policies and Measures* • Liberalisation of interest rates started in 2001 • Improved credit policies implemented to expand credit to every economic sector • Foreign exchange management shifted toward liberalising the current transactions and gradually liberalising the capital transactions *Monetary Stability related Policies and Measures* • OMO and SWAP applied in 2000 and 2001, respectively • Reserve requirement increased in June 2007 and further in February 2008 • Basic interest rate, discounting interest rate and refinancing interest rates increased • In March 2008, the SBV issued bills to credit institutions					

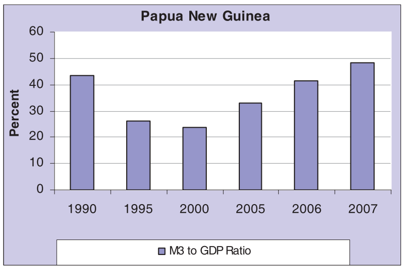
Source: Response to the SEACEN Questionnaire supplied by the respective central banks/monetary authorities
Note: The definition and or components of indicator may differ from country to country.

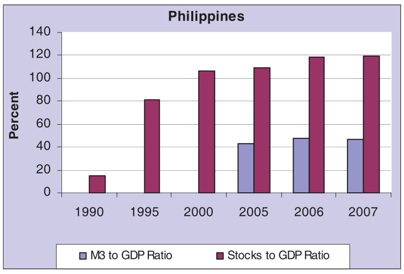
Monetary Aggregates and Market Capitalisation of Stocks

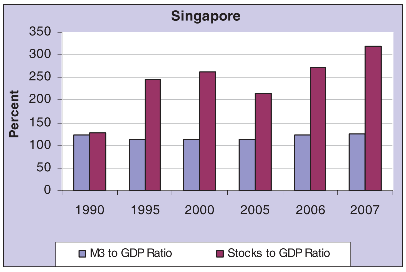


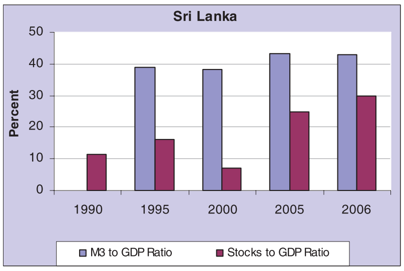
Note: 'Stocks to GDP Ratio' indicates Market Capitalization of Stocks to GDP Ratio

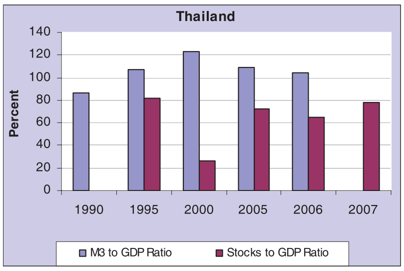

Nepal
Percent
60
50
40
30
20
10
0
1990
1995
2000
2005
2006
2007
M2 to GDP Ratio
Stocks to GDP Ratio

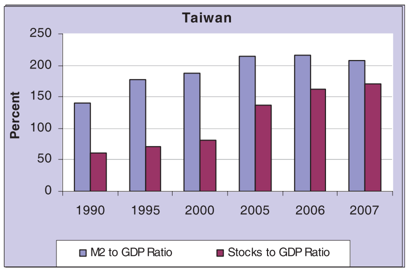

Papua New Guinea
Percent
60
50
40
30
20
10
0
1990
1995
2000
2005
2006
2007
M3 to GDP Ratio


Philippines
Percent
140
120
100
80
60
40
20
0
1990
1995
2000
2005
2006
2007
M3 to GDP Ratio
Stocks to GDP Ratio

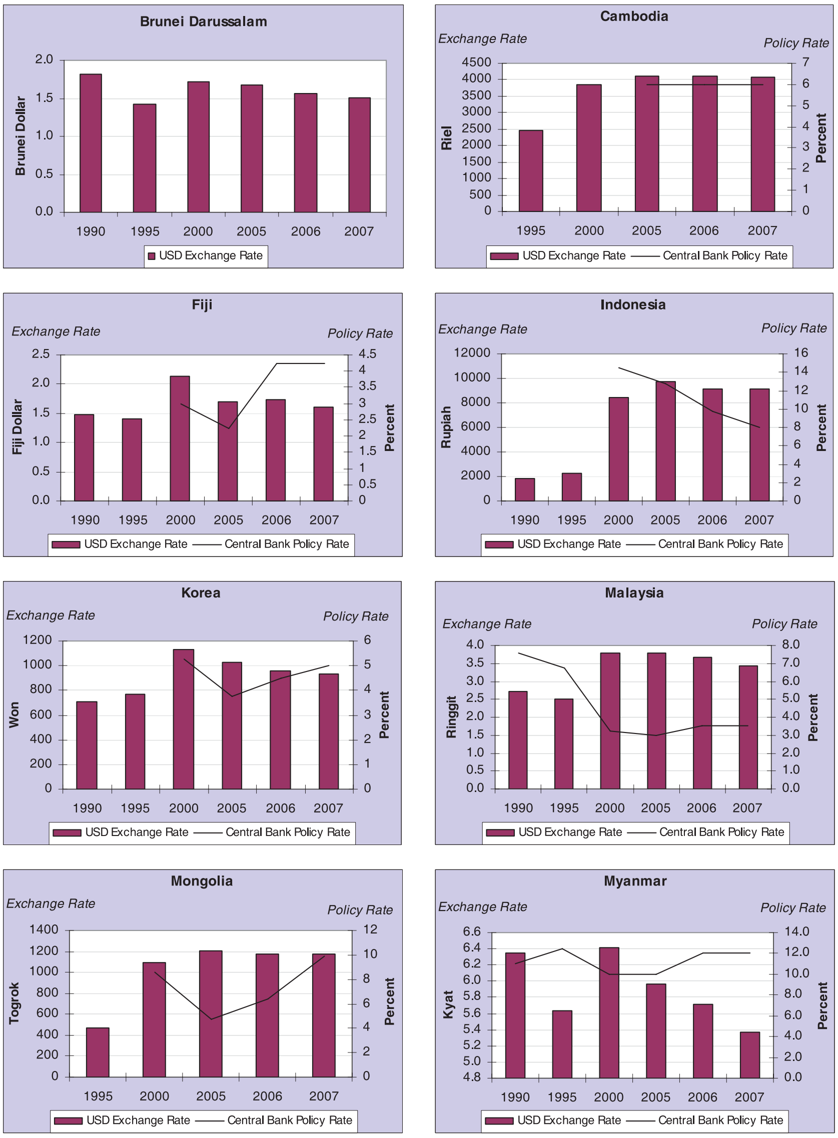

Singapore
Percent
350
300
250
200
150
100
50
0
1990
1995
2000
2005
2006
2007
M3 to GDP Ratio
Stocks to GDP Ratio


Sri Lanka
Percent
50
40
30
20
10
0
1990
1995
2000
2005
2006
M3 to GDP Ratio
Stocks to GDP Ratio

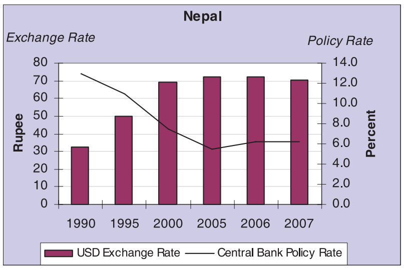

Thailand
Percent
140
120
100
80
60
40
20
0
1990
1995
2000
2005
2006
2007
M3 to GDP Ratio
Stocks to GDP Ratio

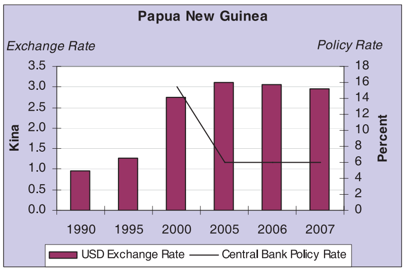

Taiwan
Percent
250
200
150
100
50
0
1990
1995
2000
2005
2006
2007
M2 to GDP Ratio
Stocks to GDP Ratio

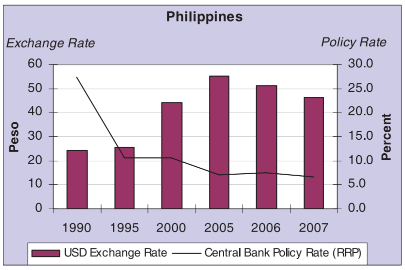
Exchange Rates and Central Bank Policy Rates

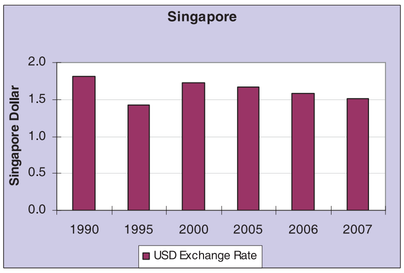


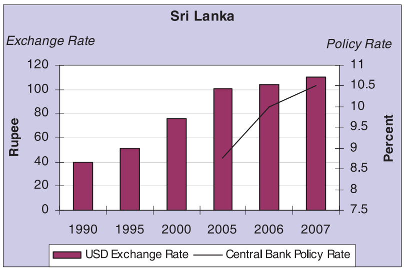
Note: 'USD Exchange Rate' indicates National Currency per USD

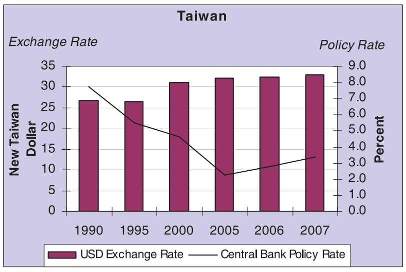

Nepal
Exchange Rate
Policy Rate
Rupee
Percent
1990 1995 2000 2005 2006 2007
USD Exchange Rate
Central Bank Policy Rate

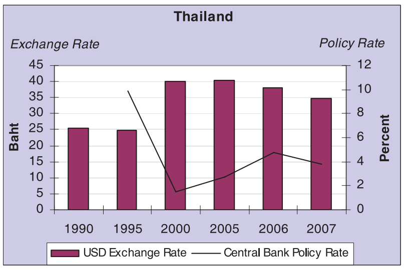

Papua New Guinea
Exchange Rate
Policy Rate
Kina
Percent
1990 1995 2000 2005 2006 2007
USD Exchange Rate
Central Bank Policy Rate

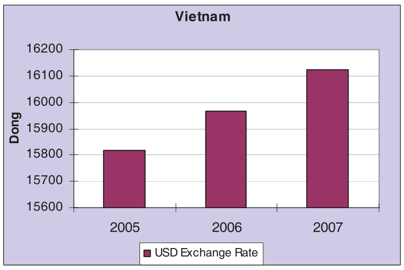

Philippines
Exchange Rate
Policy Rate
Peso
Percent
1990 1995 2000 2005 2006 2007
USD Exchange Rate
Central Bank Policy Rate (RRP)


Singapore
Singapore Dollar
1990 1995 2000 2005 2006 2007
USD Exchange Rate

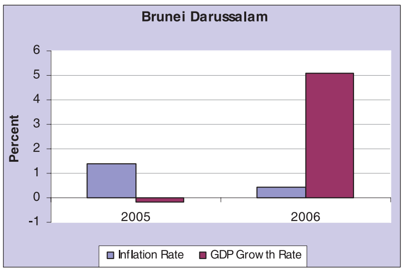

Sri Lanka
Exchange Rate
Policy Rate
Rupee
Percent
1990 1995 2000 2005 2006 2007
USD Exchange Rate
Central Bank Policy Rate

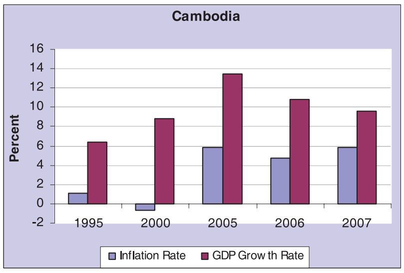

Taiwan
Exchange Rate
Policy Rate
New Taiwan Dollar
Percent
1990 1995 2000 2005 2006 2007
USD Exchange Rate
Central Bank Policy Rate

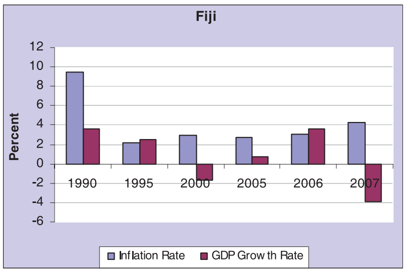

Thailand
Exchange Rate
Policy Rate
Baht
Percent
1990 1995 2000 2005 2006 2007
USD Exchange Rate
Central Bank Policy Rate

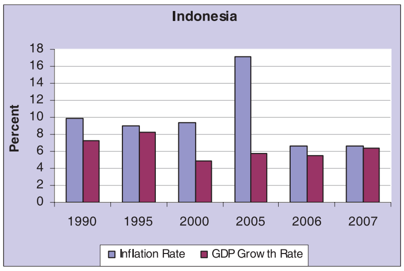

Vietnam
Dong
2005 2006 2007
USD Exchange Rate

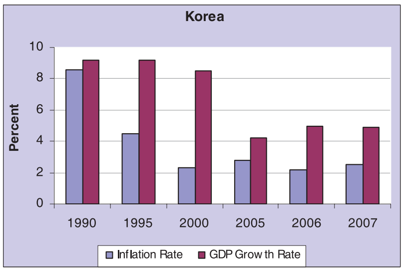
Inflation Rates and Economic Growth Rates

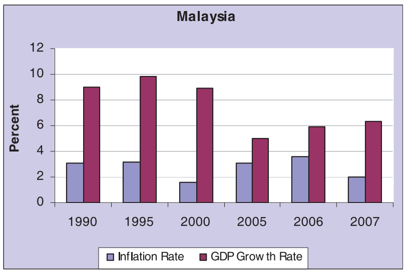


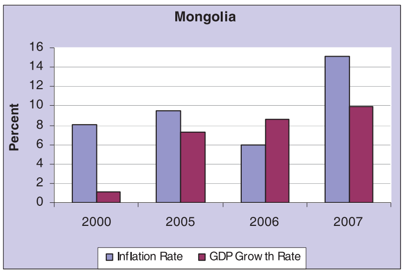


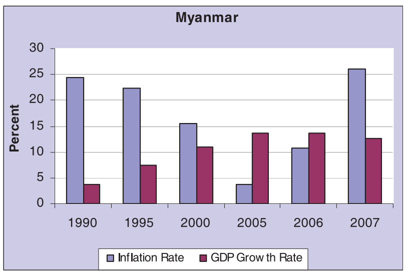


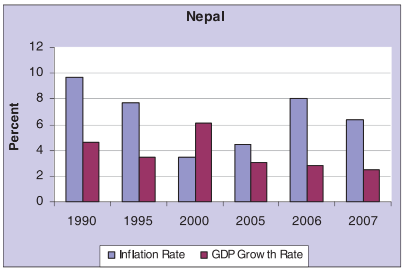


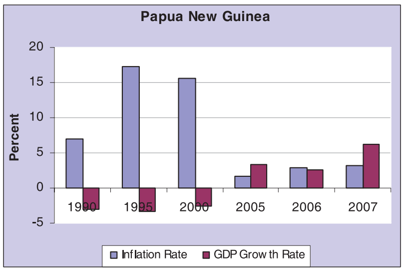


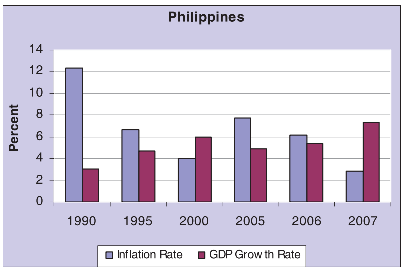


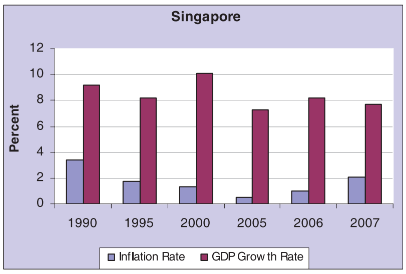


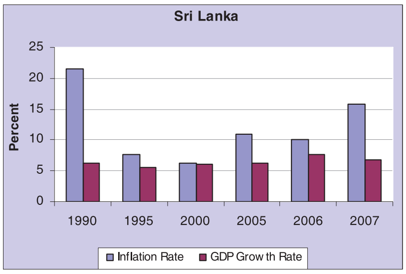


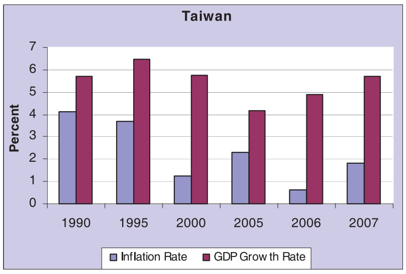

Nepal
Percent
12
10
8
6
4
2
0
1990
1995
2000
2005
2006
2007
Inflation Rate
GDP Growth Rate

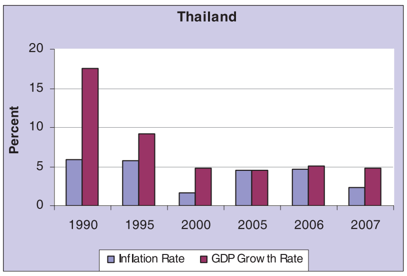

Papua New Guinea
Percent
20
15
10
5
0
-5
1990
1995
2000
2005
2006
2007
Inflation Rate
GDP Growth Rate

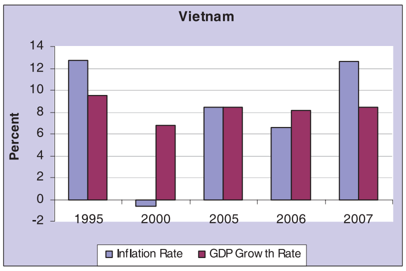

Philippines
Percent
14
12
10
8
6
4
2
0
1990
1995
2000
2005
2006
2007
Inflation Rate
GDP Growth Rate


Singapore
Percent
12
10
8
6
4
2
0
1990
1995
2000
2005
2006
2007
Inflation Rate
GDP Growth Rate


Sri Lanka
Percent
25
20
15
10
5
0
1990
1995
2000
2005
2006
2007
Inflation Rate
GDP Growth Rate


Taiwan
Percent
7
6
5
4
3
2
1
0
1990
1995
2000
2005
2006
2007
Inflation Rate
GDP Growth Rate


Thailand
Percent
20
15
10
5
0
1990
1995
2000
2005
2006
2007
Inflation Rate
GDP Growth Rate


Vietnam
Percent
14
12
10
8
6
4
2
0
-2
1995
2000
2005
2006
2007
Inflation Rate
GDP Growth Rate

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