

# Challenges and Developments in the Financial Systems of the Southeast Asian Economies

by

Toshiyuki Shimada and Ting Yang\*

*This paper discusses the economies and financial systems of Southeast Asia (SEA) and focuses on challenges and developments in the region. Despite the diversity of SEA economies and some important exceptions, most of them are relatively small but growing strongly. Financial deepening differs among SEA economies. Yet in general, equity markets have grown rapidly and bond markets slowly. The main vulnerabilities of the SEA economies stem from volatile capital flows as well as from decreases in export demand. As a result of national and regional policy responses to the Asian Crisis of 1997/98, the soundness of banking systems has improved, and frameworks to deal with foreign currency liquidity problems and to develop bond markets have been established. Due to these efforts, SEA economies have shown considerable resilience during the current global financial and economic crisis. In some economies, macro-prudential measures may have contributed to this resilience. Capital flows during the current crisis have reminded regional authorities of the risks inherent in these flows. Remaining issues for policy makers to consider are the risks presented by the expanding business activities of banks in the capital and real estate markets, and increasing the participation of SMEs and households in the financial system.*

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*Keywords: Southeast Asia, capital flows, financial crises, financial development, international bond markets*

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## I. Background

*SEA economies have so far shown considerable resilience in response to the current global financial and economic crisis*

Unlike during the Asian crisis of 1997-98, the SEA economies have so far shown considerable resilience in response to the current global financial and economic crisis. Most of the SEA economies are also recovering from the effects of the crisis faster than many OECD countries, as reflected in the development of their financial markets and economies. Against this background, two topics will be discussed in this article:

- Current financial market issues, including an assessment of the SEA economies' performance throughout the financial crisis. The current risks will also be considered (in particular those relating to capital flows), and strategies for coping with them, including capital controls and macro-prudential measures.
- Structural issues and financial market reforms in SEA economies, in particular those proposed and/or implemented in response to the crisis at the national and regional levels. These responses include current regional co-operation initiatives for the financial markets, as well as increasingly far-reaching reforms that are likely to shape a new financial landscape.

*This article highlights challenges and developments in the region*

This article focuses on the challenges and developments in the financial systems of the SEA region, rather than providing a comprehensive survey of each financial system. The paper will first discuss the basic characteristics of SEA economies and financial systems, followed by a discussion of the policy efforts made by SEA economies after the Asian crisis. The second section will deal with the economic performance and policy responses of SEA economies during the current global crisis. Finally, some of the remaining challenges will be briefly highlighted.

## II. Basic characteristics of the economies and the financial systems in Southeast Asia

*Common characteristics of SEA economies and financial systems*

Despite the diversity of the economies in the region, and some important exceptions, SEA economies share several common characteristics in regard to their economic and financial systems. Some of these characteristics have existed since the Asian crisis and others emerged later. Concerning the probable causes of the Asian financial crisis, several pre-conditions have been mentioned. Their attributes are: (i) vulnerable macroeconomic fundamentals, including the rigidity of the foreign exchange regime and massive current account deficits; (ii) inflows of foreign capital; and (iii) bank-dominated financial systems and weaknesses in their risk management. The problems of a double mismatch (in terms of currency as well as maturity) and the sudden massive capital outflows from the region were a result of the above attributes.<sup>1</sup>

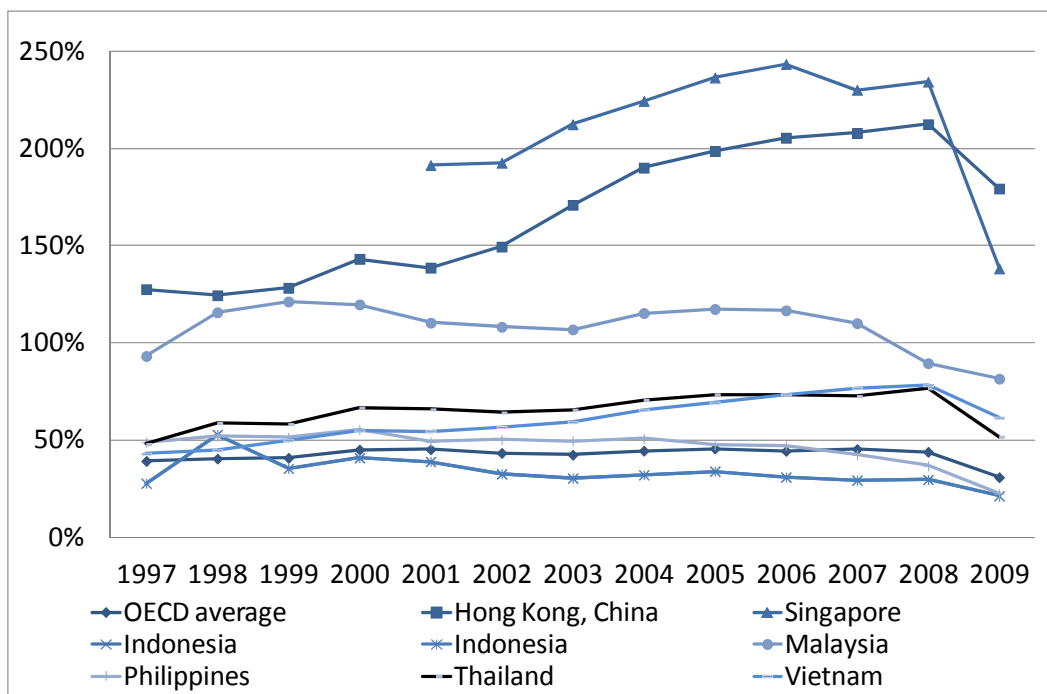
This section provides an overview of the current basic characteristics of the economies and financial systems of SEA countries and how they have evolved since the Asian financial crisis. The following dimensions are considered: (1) basic macroeconomic developments; (2) financial system deepening and broadening; (3) stability and the prudential soundness of financial systems; and (4) SEA economies' performance during the recent global financial and economic crisis.

### 1. Basic macroeconomic developments

*Small but growing, export-oriented economies*

Most of the SEA economies are relatively small, but they have had relatively high economic growth, which has greatly depended on export-oriented industries and the limited flexibility of these countries' exchange-rate regimes. These basic conditions are the same today as they were during the Asian crisis.

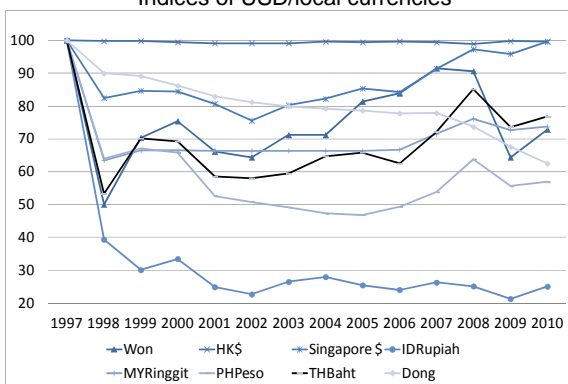
Figure 1. Gross exports / GDP



Sources: World Bank; U.S. Census Bureau.

Figure 2-1. Nominal exchange rates

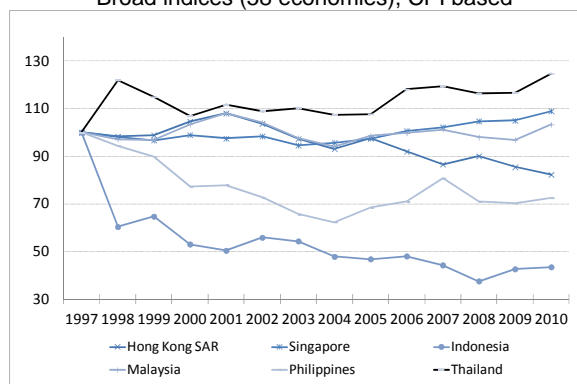
Indices of USD/local currencies



Source: Thomson Reuters Datastream.

Figure 2-2. Real effective exchange rates

Broad indices (58 economies), CPI based

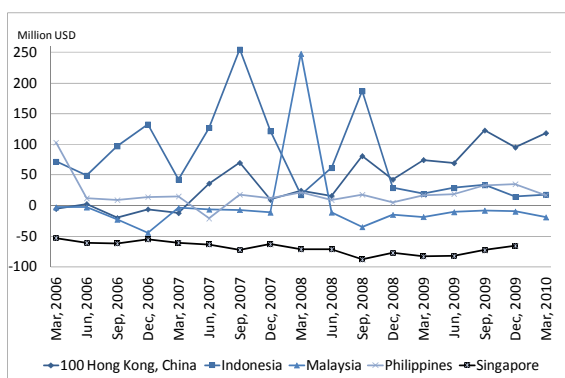


Source: BIS.

**Main vulnerabilities stem from decreases in export demand and volatile capital flows**

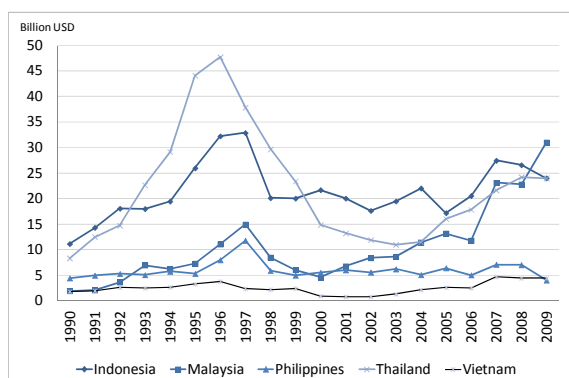
In this context, the fluctuations of the global economy have made SEA economies vulnerable in two ways. One vulnerability affects the real economy, and stems from global decreases in export demand. The other one affects financial markets. The relatively high growth of SEA economies along with their relatively high interest rates have been attracting foreign investors. This has resulted in huge capital inflows, leading to excess liquidity and increasing the risk of asset bubbles building up. A sudden reversal of these inflows would render the impact of any bubble-bursting more severe (Figure 3).

**Figure 3-1. Net capital inflows, quarterly, since 2007**



Source: CEIC.

**Figure 3-2. External short-term debt, since 1990**

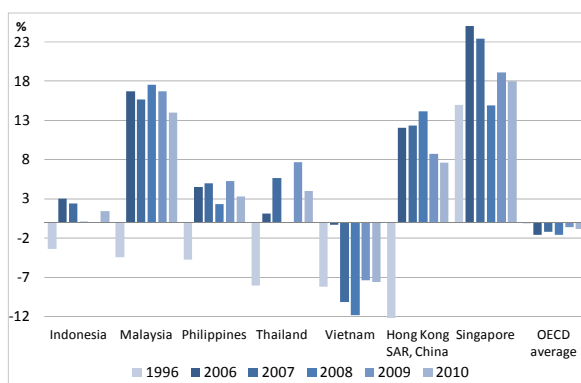


Sources: World Bank, BSP, SINGSTAT, BNM, JEDH.

**Accumulation of foreign reserves and healthy fiscal conditions have mitigated the negative effects of capital flows**

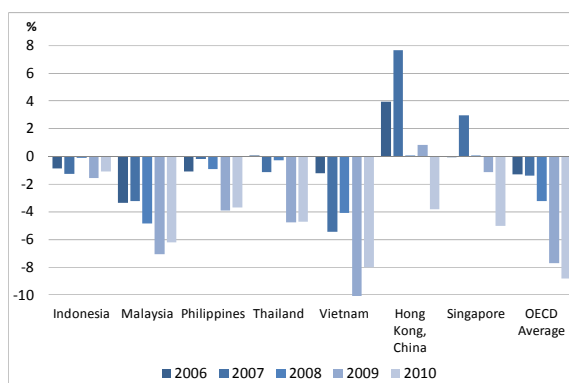
Yet in general, due to their current account surpluses over the past year, SEA economies have accumulated solid foreign reserves. The accumulation of foreign currency reserves after the Asian crisis has so far mitigated the risk of foreign currency liquidity drying up. In addition to this, the relatively healthy fiscal conditions of the SEA countries after the Asian crisis has increased their capacity to take fiscal measures in case of an economic downturn (Figures 4 and 5).

**Figure 4. Current account balances/GDP**



Sources for Figure 4: World Bank, World Development Indicators, and Global Development Finance.

**Figure 5. SEA's fiscal balances/GDP (2006-2010)**



Sources for Figure 5: Asian Development Outlook, 2010, 2005, 2000; OECD Economic Outlook database; Deutsche Bank Research.

## 2. *Financial system deepening and broadening*

### *Financial deepening differs among SEA economies*

Financial deepening differs vastly among SEA economies. As Table 1 shows, the ratio of total financial assets (bank assets and capital market assets) to GDP suggests that financial deepening of the regional financial centres – Singapore and Hong Kong, China – approximates or even surpasses the financial deepening of OECD countries. But in other SEA countries, financial deepening seems not to be as advanced as in the OECD countries. This indicator also shows that the development of financial deepening in these economies is not very steady.

### *Deepening in terms of the banking sector has been sluggish*

Before the Asian crisis, financial systems in SEA economies, especially in the countries where the Asian crisis was the most serious, had been characterised as bank-dominated. But after the crisis, the growth in banking-sector assets has been below that of GDP growth for most of the SEA countries. This is the main reason why the financial deepening has been sluggish in these economies, compared to the OECD countries.

### *Equity markets have grown but secondary markets are still not very liquid*

The indicator of equity market capitalisation-to-GDP shows that equity markets in SEA countries have increased relative to GDP, after a decline during the Asian crisis; as a result, this ratio for Singapore, Hong Kong, China and Malaysia was recently higher than those of the OECD countries. But even in these four economies, turnover ratios are lower than those of the OECD countries, and this suggests a lack of liquidity in the secondary markets. Relative to the OECD countries, SEA economies have higher volatility in foreign portfolio investment and relatively illiquid domestic markets, indicating that SEA economies are vulnerable to the effects of foreign capital flows.

### *Bond markets have developed only slowly*

The ratio of total bond market capitalisation-to-GDP in SEA economies has increased only slowly; thus compared to OECD countries, the SEA bond markets (especially the private ones) are quite shallow.

### *High exposure to economic developments outside the region and the risks of double-mismatch remain problematic*

These indicators of financial deepening and broadening suggest a lack of diversity among the domestic intermediaries. Small and medium-sized enterprises cannot access the capital markets, and they are faced with a relatively less-developed banking sector. In the domestic bond markets, even relatively large private companies are not able to issue bonds with maturities that are in line with their needs. The large private companies and the public sector must raise funds through international markets or local banking systems. This also means that in the domestic market there are limited options to invest savings. This leaves the Southeast Asian economies highly exposed to the economic performance of countries outside the region and to the risks caused by a double-mismatch (mismatches of currency and maturity) – issues that need to be considered and analysed.

Table 1. Financial deepening and broadening<sup>2</sup>

Indicators	Countries	1997	1998	2000	2005	2006	2007	2008	2009
a Total financial assets / GDP(%)	Indonesia	86.9	87.8	103.0	82.1	81.3	91.1	105.5	
	Malaysia	413.0	380.2	355.8	336.4	333.7	353.2	376.4	
	Philippines	156.4	141.0	124.7	118.8	123.7	130.7	140.9	
	Thailand	210.0	215.0	193.3	214.9	210.3	213.3	218.4	
	Vietnam	-	-	-	65.9	80.2	105.3	-	
	Hong Kong, China	432.2	440.1	557.0	574.1	604.7	673.2	767.1	
	Singapore	267.8	278.7	350.5	422.8	386.1	361.8	337.3	
	OECD average	291.8	305.3	343.2	325.6	337.2	347.6	363.4	
b Deposit money bank assets / GDP(%)	Indonesia	56.3	55.3	43.7	34.7	32.7	31.5	30.2	
	Malaysia	146.0	164.2	131.0	113.8	111.6	106.8	102.6	
	Philippines	60.7	61.5	50.3	44.4	40.1	36.3	32.4	
	Thailand	159.2	173.5	131.6	104.3	99.2	93.6	88.4	
	Vietnam	18.9	20.1	32.0	65.2	72.4	85.2	102.5	
	Hong Kong, China	165.3	187.9	164.2	160.8	155.6	147.7	140.4	
	Singapore	108.0	124.3	117.0	116.3	111.1	110.8	110.6	
	OECD average	107.3	103.1	108.9	102.0	104.8	109.3	114.1	
c Private bond market capitalisation / GDP(%)	Indonesia	1.7	2.7	1.4	2.4	2.0	2.0	2.0	
	Malaysia	40.4	53.4	48.9	49.7	51.4	54.5	57.5	
	Philippines	0.2	0.3	0.2	0.7	1.0	1.1	1.1	
	Thailand	8.3	9.3	11.9	13.6	15.2	16.0	17.0	
	Vietnam	-	-	-	-	-	-	-	
	Hong Kong, China	14.1	16.6	17.4	17.9	17.3	16.1	14.9	
	Singapore	10.7	13.8	17.3	18.3	17.2	16.1	14.9	
	OECD average	54.6	57.6	63.3	65.5	66.6	69.1	73.7	
d Public bond market capitalisation / GDP (%)	Indonesia	0.8	2.9	29.9	17.8	16.1	17.0	18.0	
	Malaysia	24.9	29.2	29.5	36.3	35.9	35.9	35.9	
	Philippines	27.0	28.0	28.8	38.4	36.0	33.5	31.2	
	Thailand	1.2	6.0	13.6	27.9	30.9	34.7	39.7	
	Vietnam	-	-	-	-	-	-	-	
	Hong Kong, China	7.1	8.2	8.8	9.9	9.5	8.9	8.3	
	Singapore	14.5	18.4	25.2	38.3	38.0	38.7	39.3	
	OECD average	49.2	49.6	49.3	58.3	56.9	56.2	57.4	
e Total bond market capitalisation / GDP(%)	Indonesia	2.6	5.6	31.3	20.2	18.1	18.9	19.9	
	Malaysia	65.3	82.6	78.4	86.0	87.3	90.4	93.5	
	Philippines	27.2	28.3	29.1	39.2	37.0	34.6	32.3	
	Thailand	9.6	15.3	25.5	41.5	46.1	50.7	56.7	
	Vietnam	-	-	-	-	-	-	-	
	Hong Kong, China	21.3	24.7	26.2	27.8	26.8	25.0	23.2	
	Singapore	25.3	32.2	42.4	56.7	55.2	54.7	54.2	
	OECD average	103.7	107.2	112.6	123.8	123.5	125.4	131.1	
f Stock market capitalisation / GDP(%)	Indonesia	28.1	26.9	27.9	27.2	30.5	40.7	55.3	
	Malaysia	201.7	133.4	146.4	136.6	134.8	156.0	180.3	
	Philippines	68.5	51.3	45.3	35.2	46.5	59.8	76.3	
	Thailand	41.2	26.1	36.2	69.1	65.0	68.9	73.3	
	Vietnam	-	-	-	0.7	7.8	20.1	-	
	Hong Kong, China	245.6	227.4	366.6	385.6	422.3	500.5	603.5	
	Singapore	134.5	122.2	191.0	249.8	219.8	196.3	172.5	
	OECD average	80.7	95.0	121.6	99.8	108.9	112.9	118.1	
g Portfolio investment (equity) to GDP (%)	Indonesia	-2.3	-4.6	-0.6	-0.1	0.5	0.8	0.1	
	Malaysia	-	-	-	-0.9	1.5	-0.4	-4.8	
	Philippines	-0.5	0.4	-0.3	1.5	2.1	2.2	-0.8	
	Thailand	2.6	0.3	0.7	2.9	2.5	1.7	-1.7	
	Vietnam	-	-	-	0.2	2.2	9.1	-0.6	
	Hong Kong, China	-	-1.3	27.8	5.6	7.6	21.1	9.0	
	Singapore	-0.5	1.2	-1.3	4.0	7.3	11.0	-1.2	
	OECD average	0.9	1.6	2.6	2.4	2.1	1.7	-0.4	
h Stocks traded, turnover ratio (%)	Hong Kong, China	113.4	54.4	61.3	49.3	60.0	89.1	81.8	-
	Indonesia	145.9	59.4	32.9	54.2	44.3	64.4	71.3	78.1
	Malaysia	72.6	30.9	44.6	26.9	32.1	53.5	33.2	54.7
	Philippines	67.6	31.1	15.8	20.1	20.7	34.1	22.2	24.9
	Singapore	49.9	50.5	52.1	63.1	62.2	122.0	101.3	-
	Thailand	60.7	71.2	53.2	74.7	70.7	64.2	78.2	110.2
	Vietnam	-	-	-	-	22.4	87.9	28.8	42.7
	OECD average	84.4	90.0	128.4	119.1	145.0	175.7	182.3	-

Sources: World Bank, Financial Development and Structure New Database, updated April 2010; International Monetary Fund, World Economic Outlook Database, April 2010.

Table 2. Key prudential ratios<sup>3</sup>

Indicators	Countries	1997	1998	1999	2000	2005	2006	2007	2008	2009
a Nonperforming loans to Total loans (in %)	Indonesia	-	48.6	32.9	18.8	7.6	6.1	4.1	3.2	3.8
	Malaysia	4.1	18.6	16.6	15.4	9.6	8.5	6.5	4.8	3.8
	Philippines	4.7	11.0	12.7	14.9	10.0	7.5	5.8	4.5	4.6
	Thailand	-	42.9	38.6	17.7	9.1	8.4	7.9	5.7	-
	Vietnam	-	-	-	-	-	-	-	-	-
	Hong Kong, China	-	5.3	7.2	6.1	1.4	1.1	0.8	1.2	1.5
	Singapore	-	-	5.3	3.4	3.8	2.8	1.5	1.7	2.3
	OECD average	3.6	3.7	3.6	3.4	1.8	1.6	1.7	2.6	4.2
b Regulatory Capital to Risk-Weighted Assets (in %)	Indonesia	-	-13.0	-2.4	-18.2	19.3	21.3	19.3	16.8	17.5
	Malaysia	10.5	11.8	12.5	12.5	13.7	13.5	13.2	12.7	14.6
	Philippines	16.0	17.7	17.5	16.2	17.7	17.6	15.7	15.5	15.8
	Thailand	9.4	10.9	12.4	12.0	13.2	13.6	14.8	13.8	-
	Vietnam	-	-	-	-	-	-	-	-	-
	Hong Kong, China	-	18.5	18.7	17.8	14.8	14.9	13.4	14.8	16.6
	Singapore	-	18.3	21.3	19.9	15.8	15.4	13.5	14.7	16.5
	OECD average	11.1	11.5	11.8	11.6	12.6	12.7	12.3	12.6	13.3
c Provisions to non performing loans (in %)	Indonesia	-	28.6	77.7	59.4	60.6	84.7	104.5	118.6	127.4
	Malaysia	21.6	42.4	50.2	54.5	59.1	64.6	77.3	89.0	93.3
	Philippines	47.3	36.4	45.2	43.7	72.9	75.0	81.5	86.0	91.4
	Thailand	-	29.2	37.9	47.2	83.7	82.7	86.5	97.9	-
	Vietnam	-	-	-	-	-	-	-	-	-
	Hong Kong, China	-	-	-	-	64.8	67.6	78.4	71.5	68.3
	Singapore	-	-	86.2	87.2	78.7	89.5	115.6	109.1	91.0
	OECD average	72.6	62.7	65.5	73.5	114.6	112.5	97.6	77.5	66.2
d Capital to assets (in %)	Indonesia	8.8	-12.9	-4.1	5.2	9.8	10.8	10.6	10.3	11.0
	Malaysia	8.4	8.9	8.9	8.5	7.7	7.6	7.4	8.0	9.0
	Philippines	12.9	14.8	16.0	15.3	11.8	11.7	11.7	10.6	11.4
	Thailand	14.7	4.8	5.5	4.5	8.9	8.9	9.5	-	-
	Vietnam	-	-	-	-	-	-	-	-	-
	Hong Kong, China	-	7.7	8.1	9.0	13.3	13.0	10.4	11.0	12.7
	Singapore	-	7.5	7.8	7.1	9.6	9.6	9.2	8.3	10.5
	OECD average	6.1	6.2	6.5	6.6	7.4	7.5	7.3	6.6	8.3

Sources: IMF, Global Financial Stability Report, 2004 and 2010.

### 3. Stability and prudential soundness of financial systems

#### *The soundness of SEA banking systems has improved significantly*

The financial soundness indicators in Table 2 point to great improvements in the soundness of banking systems in the SEA region since the Asian crisis. Notably, the decrease of NPL ratios among the economies implies that the asset quality of the banking systems has significantly improved since the Asian crisis (by 2000 in the most affected economies, and by 2005 in other countries). The provisioning ratio had also greatly improved by 2005. With improvements in asset quality and provisioning, returns on assets and equity have risen strongly in most cases (Table 3). On the other hand, improvements in these ratios, while the increase of bank assets-to-GDP has remained sluggish, suggest that banks have remained cautious in providing financing to high-risk sectors and continue their focus on improving asset quality.<sup>4</sup>

#### *The liquidity risks of banking systems seem to be decreasing*

Foreign currency liquidity risks, caused by double mismatches (exchange rate and maturity), played a major role in the Asian financial crisis. But as Figure 6 shows, these risks seem to have decreased, because most of the countries have accumulated foreign currency reserves at a higher rate than short-

term external debt. In 2009, these economies – except for Hong Kong, China; and Singapore – have foreign currency reserves that were more than double their short-term external debt outstanding. For example, the Philippines have foreign exchange reserves more than ten times their short-term debt outstanding; Thailand more than five times. Domestic liquidity risks have also been reduced. For example, the loan-to-deposit ratio in most of these economies was far beyond 100% before the Asian crisis, but this has since fallen and is now below 100% in all cases except, Vietnam (Table 4).

**Table 3. Bank profitability indicators**

Indicators	Countries	1997	1998	2000	2005	2006	2007	2008
a NET INTEREST MARGIN(%)	Indonesia	4.8	11.4	4.1	5.2	5.0	5.0	5.1
	Malaysia	3.2	3.5	3.1	3.0	2.0	2.0	1.9
	Philippines	5.3	5.6	4.8	4.1	4.1	4.1	4.0
	Thailand	2.8	1.2	2.0	2.6	3.3	3.3	3.2
	Vietnam	3.3	3.0	2.8	2.8	2.7	2.3	1.9
	Hong Kong, China	2.8	3.9	3.7	1.9	2.2	2.4	2.6
	Singapore	2.2	2.5	2.7	4.0	2.3	1.4	0.8
	OECD average	3.3	3.5	3.4	3.2	3.1	2.9	2.7
b BANK ROA(%)	Indonesia	0.8	-13.7	1.2	1.8	1.7	2.0	2.2
	Malaysia	1.0	0.0	1.5	1.3	1.3	1.4	1.5
	Philippines	2.3	0.9	0.3	1.5	0.2	0.7	2.7
	Thailand	-3.2	-10.2	-1.2	0.7	-0.1	-0.3	-1.1
	Vietnam	1.2	1.0	0.9	1.3	1.5	1.7	2.0
	Hong Kong, China	-4.7	-1.1	2.3	1.1	1.4	1.4	1.4
	Singapore	0.8	-0.1	1.7	2.3	2.2	1.7	1.3
	OECD average	0.7	1.0	0.7	1.0	1.0	0.8	-0.2
c BANK ROE (%)	Indonesia	19.3	57.7	19.7	14.3	12.6	12.7	12.9
	Malaysia	8.5	-7.5	14.6	12.9	12.3	13.3	14.2
	Philippines	11.2	3.1	2.5	-13.4	1.2	4.1	13.6
	Thailand	-91.9	-144.5	-65.6	8.7	-2.1	-	-
	Vietnam	-0.8	3.7	-1.1	13.7	14.5	16.7	19.5
	Hong Kong, China	5.7	1.5	10.3	13.1	13.5	16.3	19.5
	Singapore	3.9	-5.6	19.2	10.5	16.2	15.5	14.8
	OECD average	8.8	6.1	6.8	10.5	10.0	9.1	10.4

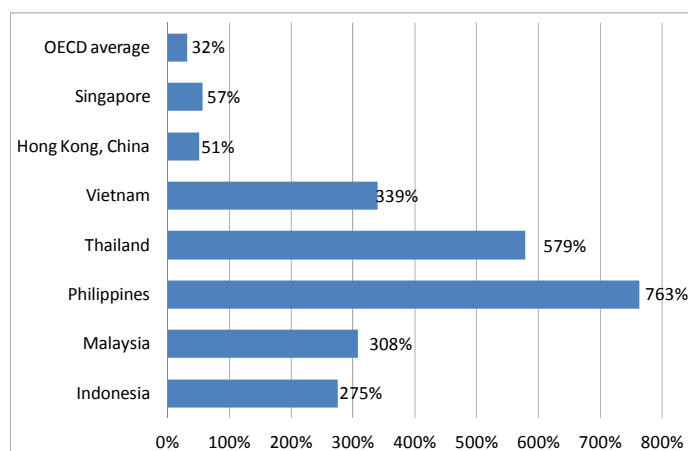
Notes: The OECD averages in panels a, b and c do not include Greece 2000, 2001; Iceland 1997-1999, 2002-2008; New Zealand 1997-2002.<sup>5</sup>

Source: World Bank, Financial Development and Structure New Database, updated April 2010.

**Table 4. Bank loans-to-deposits ratio (percent)**

		1997	1998	1999	2000	2005	2006	2007	2008
BANK CREDIT / BANK DEPOSITS in %	Indonesia	118	96	39	40	66	65	68	71
	Malaysia	140	134	116	112	97	93	91	89
	Philippines	102	87	75	73	55	50	51	52
	Thailand	179	148	125	102	94	91	94	97
	Vietnam	208	190	178	181	149	135	132	128
	Hong Kong, China	106	89	74	69	59	52	47	43
	Singapore	127	103	92	100	92	81	83	85
	OECD average	70	61	64	74	83	87	89	92

Source: World Bank, Financial Development and Structure New Database, updated April 2010.

**Figure 6. Ratio of foreign currency reserves to short-term debt (in %, 2009)**

Source: World Bank.

*Banks are expanding their activities*

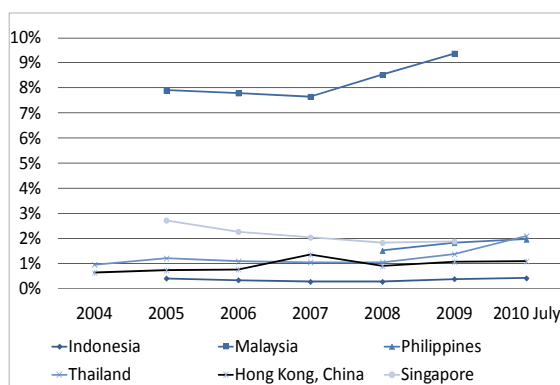
With regard to the formation of complex financial groups, the SEA economies – especially those of Singapore, Hong Kong, China; and Malaysia – have relatively liberal legal frameworks (Table 5). Based on such frameworks, the banking sectors in these economies seem to have expanded their securities businesses recently.<sup>6</sup> Even in countries where securities operations by banks are prohibited, financial deepening and broadening has increased banks' securities holdings, as Figure 7 shows. Banks in several SEA economies have also increased lending to the real estate sector and have developed their mortgage loan business (Figure 8).

**Table 5. Regulations governing financial services**

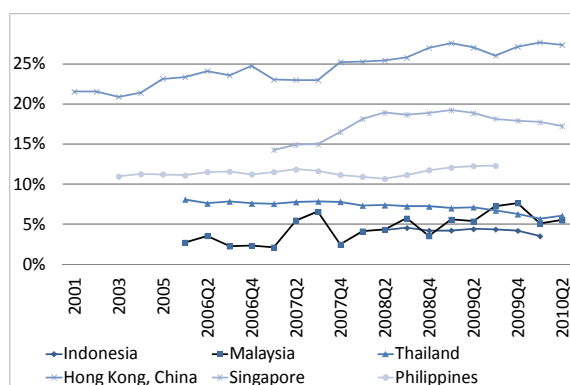
a Can banks engage in securities activities	Hong Kong, China	Unrestricted
	Indonesia	Prohibited
	Malaysia	Permitted
	Philippines	Unrestricted
	Singapore	Unrestricted
	Thailand	Prohibited
	Viet Nam	Prohibited
b Can banks engage in insurance activities	Hong Kong, China	Unrestricted
	Indonesia	Prohibited
	Malaysia	Restricted
	Philippines	Permitted
	Singapore	Restricted
	Thailand	Restricted
	Viet Nam	Permitted
c Can banks engage in real estate activities	Hong Kong, China	Unrestricted
	Indonesia	Prohibited
	Malaysia	Restricted
	Philippines	Permitted
	Singapore	Restricted
	Thailand	Restricted
	Viet Nam	Restricted

*Definitions:* Unrestricted: A full range of these activities can be conducted directly in banks. Permitted: A full range of these activities are offered but all or some of these activities must be conducted in subsidiaries or in another part of a common holding company.

*Sources:* World Bank, Bank Regulation and Supervision Database; State Securities Commission of Viet Nam.

**Figure 7. Equities as % of total assets**


Sources: Central banks, CEIC.

**Figure 8. Loans to real estate sector as % of total loans**


Note: Hong Kong, China; and Singapore include construction.

Sources: Central banks, CEIC

### *Market risk might be increasing*

Along with expansion into these activities, risks related to the capital and real estate markets may emerge or re-emerge. These markets are exposed to large foreign capital in- and outflows, which also make the regional banking systems vulnerable. Therefore, the necessity of integrated risk management at the financial company level and appropriate supervision by authorities is heightened.

### *Privatisation and liberalisation enhance efficiency, but globalisation also poses challenges to the soundness of SEA financial systems*

At the same time, the financial structures in most of the Southeast Asian countries are becoming more similar to those of the OECD countries in the following two ways: (1) the degree of government ownership of financial institutions has reached a level similar to that found in the OECD countries; (2) foreign-controlled institutions have shares in the domestic banking system that are comparable to those in OECD countries (Table 6). The ratio of loans from non-resident banks-to-GDP shows that cross-border lending to Hong Kong, China; Malaysia; Singapore and Thailand is vibrant, even in comparison with the OECD countries, but not so in Indonesia, the Philippines and Vietnam. On the other hand, Hong Kong, China; Indonesia; Malaysia and the Philippines have increased their international debt issuance since the Asian crisis (Table 7). The opening up of the financial systems to the domestic private sector and to foreign firms may have enhanced their efficiency and innovative capacity. Yet this liberalisation has also exposed SEA economies to the vagaries of the international capital markets.

**Table 6. Banking sector ownership**

Country	50% or more government owned as of year end 2005?	50% or more foreign owned as of year end 2005?
Indonesia	38.5%	39.7%
Malaysia	0.0%	21.4%
Philippines	12.1%	13.4%
Thailand	14.5%	4.3%
Vietnam	-	-
Hong Kong, China	0.0%	-
Singapore	0.0%	>50%

Source: World Bank, Bank Regulation and Supervision Database.

**Table 7. Internationalisation (loans from foreign banks and international debt issues)**

		1997	1998	1999	2000	2005	2006	2007	2008
a	<b>LOANS FROM NON-RESIDENT BANKS (NET) / GDP in %</b>								
	Indonesia	46	49	51	45	36	35	34	34
	Malaysia	102	113	115	108	110	110	110	109
	Philippines	52	56	55	54	50	51	51	51
	Thailand	84	102	105	103	97	94	89	84
	Vietnam	8	10	13	17	39	46	58	74
	Hong Kong, China	155	183	202	210	242	250	268	285
	Singapore	104	116	123	110	103	107	111	116
OECD average	72	76	77	75	84	87	90	92	
b	<b>INTERNATIONAL DEBT ISSUES / GDP in %</b>								
	Indonesia	4	6	9	12	32	31	30	29
	Malaysia	11	17	17	17	21	20	18	17
	Philippines	15	22	22	24	30	27	23	19
	Thailand	9	13	12	12	6	6	5	4
	Vietnam	-	-	-	-	-	-	-	-
	Hong Kong, China	11	13	15	17	32	33	33	32
	Singapore	7	18	11	7	4	4	4	4
OECD average	19	21	23	27	48	56	62	69	

Source: World Bank, Financial Development and Structure New Database, updated April 2010.

*Institutional structures for financial supervision vary across the region*

The institutional structures for financial supervision should be designed to reflect the realities of SEA financial markets. Supervisory authorities need to know what happens in all areas under their purview. They need to maintain a level playing field, discourage regulatory arbitrage, and minimise the risk of contagion in an effective and efficient manner. The institutional structures vary throughout the region.

- Singapore has a single entity – the Monetary Authority of Singapore – to supervise financial activities which include banking, securities and insurance activities.
- Indonesia has two authorities. One is Bank Indonesia, the central bank which supervises the banking sector, and the other is BAPEPAM & LK which is responsible for capital markets and insurance. According to its legal framework, all financial supervisory authorities were scheduled to be consolidated into a new supervisory entity, the Financial Service Authority (OJK), in 2010. On the other hand, given that financial stability closely relates to monetary policy objectives, and seems to require the ability to be a lender of last resort, another alternative could involve assigning Bank Indonesia the supervision of all systemic financial institutions, while leaving capital markets and other non-systemic financial institutions under the supervision of OJK.
- In Malaysia, Bank Negara Malaysia, the central bank, supervises the banking sector, including investment banks, and the insurance sector. The securities committee supervises securities activities.
- Hong Kong, China, Thailand, the Philippines and Vietnam have different authorities in each field.

### III. Policy responses after the Asian crisis

#### *National and regional policy responses after the Asian Crisis*

Since the Asian crisis, most SEA economies have developed new policy frameworks to strengthen their financial stability and to facilitate the development of their capital markets. In particular, ASEAN member countries have also enhanced their co-operation in order to maintain regional macroeconomic and financial stability and to develop capital markets.

#### 1. National policy responses

##### *In response to the Asian crisis, SEA economies have undertaken financial reforms*

After completing their crisis response efforts, such as closing insolvent banks, capital injections into undercapitalised banks and the disposal of nonperforming loans, the SEA economies promoted financial reforms, particularly those targeting areas that were most affected by the crisis. They launched financial reform packages, which generally included: (i) maintaining the stability of the financial system; (ii) enhancing the competitiveness of financial sectors and capital markets; (iii) making regulation and supervision more effective; and (iv) improving consumer protection. For example, Malaysia launched “the Financial Sector Masterplan” and “the Capital Market Masterplan” in 2001; Indonesia published “Indonesian Banking Architecture” and the “Indonesian Capital Market Masterplan” in 2004; and Thailand revealed the “Financial Sector Masterplan” in 2004.

##### *Improvement in prudential policy frameworks*

Through implementation of financial reforms, these countries had improved their prudential policy frameworks by 2005. The prudential measures in most countries included (i) appropriate loan classifications; (ii) minimum capital ratios; (iii) prompt corrective actions; (iv) annual on-site inspections; (v) bank resolution schemes; (vi) deposit insurance (except for Thailand), and more. Other countries such as Vietnam have been following these developments. For example, Vietnam is now on its way to adopting risk-based supervision and is endeavouring to produce inspection manuals.

##### *Stock market infrastructure also has developed*

Financial reforms have also promoted capital market development, through the restructuring of market-related institutions, deregulation, harmonisation with international standards, etc. Concerning stock markets, for example, there have been waves of mergers among stock exchanges and the establishment of clearing and settlement systems to enhance liquidity on the secondary markets and to increase competitiveness after the Asian crisis.

- Hong Kong, China had gone further by allowing in 2000 for a venture capital market, and the establishment of a holding company, the Hong Kong Exchanges and Clearing Limited; this was created by merging the Stock Exchange of Hong Kong Limited, the Hong Kong Futures Exchange Limited and the Hong Kong Securities Clearing Company Limited, to prepare for global competition.
- In Indonesia, the Indonesia Stock Exchange was established by the merger of the exchanges in Jakarta and Surabaya. Its infrastructure, including automated stock-trading systems, custody and clearing and settlement has developed well.

- In Malaysia, the Kuala Lumpur Stock Exchange merged several equity markets in 2001 and 2002, and before the current crisis, its total market capitalisation had increased steadily.
- In the Philippines, the Securities Clearing Corporation was established in 2004 as part of the Philippine Stock Exchange, and an online daily disclosure system was adopted to improve transparency.

Due to efforts to develop stock markets, the primary and secondary markets in several economies – notably in Hong Kong, China – have improved since the Asian crisis.

*Development of  
SEA bond markets  
is still on-going*

Concerning debt markets, SEA policy makers also sought to enhance the scale and increase the liquidity of these markets by introducing benchmark bonds, upgrading market infrastructure and targeting the development of specific sub-sectors, such as the Islamic bond markets.

- Hong Kong, China issued public bonds in 2004 for the first time and developed a web-based platform, the “Central Money Markets Unit Bond Price Bulletin”, to provide retail investors with convenient on-line access to indicative bond prices, in order to develop the retail bond market in 2006. Recently, Hong Kong, China has also focused on introducing a yuan-denominated bond market.
- Indonesia developed a settlement system and a repo-market to enhance the liquidity of its bond market after 2004.
- Malaysia issued Islamic government bonds and devised tax arrangements to develop the Islamic bond (Sukuk) market.
- Singapore began to issue 15-year-government bonds in 2001 in addition to 7-year and 10-year government bonds in order to develop benchmark yield curves. Singapore also improved its legal arrangements, including a taxation system for the issuance of Islamic bonds.
- In Thailand, the Bond Electronic Exchange was established in the Stock Exchange of Thailand in 2003, to enhance the retail market and the secondary market. The Exchange acquired another trading platform from Thai Bond Dealing Centre in 2005 and began to deal in government bonds, as well as corporate bonds.

These efforts produced positive outcomes in several fields. For example, the Islamic bond market in Malaysia has grown outstandingly. But in general, the deepening of debt markets in the region is still under way. Limited liquidity, limited diversity in the investor base, and limited access to debt markets by the lower-rated issuers remain as obstacles.

*To mitigate the  
negative effects of  
capital flows, some*

In addition to these structural reforms, SEA economies introduced several measures to mitigate the negative effects of capital flows. Some countries have adopted outright capital control measures.

*SEA countries adopted outright capital control measures*

- During the Asian crisis, Malaysia adopted capital control measures in September 1998, intended to restrict short-term capital outflows, but it withdrew them gradually by May 2001. These measures included (i) imposing a 12-month holding period restriction on repatriation of proceeds from the sale of Malaysian securities; and (ii) the prohibition of the international use of the ringgit. These measures gave Malaysia room to pursue economic adjustment and to accelerate necessary structural reforms.
- In 2006, Thailand adopted a unremunerated reserve requirement for two years, which mandated that 30% of inflows had to be deposited with the central bank for one year, in order to subdue short-term capital inflows.

## 2. Regional policy responses

*Regional co-operation has been increased*

Since the Asian crisis, Southeast Asian countries have increased their regional co-operation in order to deal with foreign currency liquidity problems, and to foster the development of regional bond markets and information exchanges.

*The “Chiang Mai Initiative” was established and enhanced to deal with short-term foreign currency liquidity problems*

Under the ASEAN+3 (plus China, Japan and South Korea) framework, the currency swap arrangement among East Asian countries, which is known as the “Chiang Mai Initiative” was established in 2000 to deal with short-term foreign currency liquidity problems, and to supplement the existing international facilities. Initially, this initiative consisted of a swap arrangement among the ASEAN countries, and a network of bilateral swap and repurchase agreement facilities among ASEAN countries, China, Japan and Korea. These swaps have grown in terms of nominal value, and in May 2009 (effective 24 March 2010), this arrangement was upgraded to the “Chiang Mai Initiative Multilateralized (CMIM)”, through which the swap arrangements have been multilateralised, and the total value has risen to US\$ 120 billion.

*The Asian Bond Market Initiative has been established to develop efficient and liquid bond markets in Asia, which would enable better channeling of Asian savings into Asian investments*

Under the framework of the ASEAN+3, the Asian Bond Market Initiative was launched to develop efficient and liquid bond markets in Asia, which would enable better channeling of Asian savings into Asian investments. Under this initiative, the Asian Development Bank, along with government financial bodies and other institutions, issued local currency denominated bonds after the August 2003 ASEAN+3 Finance Ministers Meeting in Manila. At about the same time, at the Executives’ Meeting of the East Asia and Pacific Central Banks (EMEAP), which is a forum of regional central banks, two Asian Bond Funds were established for the same purpose. One is the Asian Bond Fund 1 (ABF-1), which comprises US\$ 1 billion and started in June 2003 to invest in US dollar denominated sovereign and quasi-sovereign bonds issued in eight EMEAP economies (excluding Australia, Japan and New Zealand). The other is the Asian Bond Fund 2 (ABF-2), which comprises US\$ 2 billion and started in March 2005 to invest in domestic currency denominated sovereign and quasi-sovereign bonds issued in eight EMEAP economies. In 2008, the ASEAN+3 Finance Ministers Meeting published a new ABMI Roadmap, which focuses on four key areas: (1) promoting the issuance of local currency-denominated bonds; (2) facilitating the demand of local currency-denominated bonds; (3) improving the regulatory framework; and (4) improving the infrastructure of the bond markets.

*ASEAN member countries have strongly promoted research and information exchanges*

ASEAN member countries have strongly promoted research and exchange of information regarding macroeconomic and financial developments.

- The ASEAN+3 Finance Ministers agreed in May 2001 to exchange data on capital flows bilaterally among ASEAN+3 on a voluntary basis in order to facilitate effective policy dialogue.
- To help prevent financial crises through early detection of irregularities and the swift implementation of remedial policy actions, ASEAN+3 countries have been holding an annual Economic Review and Policy Dialogue (ERPD) at the Ministerial level.
- Research Groups were established by the ASEAN+3 countries in August 2003. The goal here is to explore ways to further strengthen financial cooperation and to promote financial stability in the region by soliciting academic input from the researchers and research institutes within ASEAN+3 countries.

*ASEAN countries launched the “Roadmap for Monetary and Financial Integration of ASEAN” and the ASEAN Economic Community (AEC) Blueprint*

Aside from these specific measures, in 2003 the ASEAN Financial Ministers Meeting (AFMM) endorsed the “Roadmap for Monetary and Financial Integration of ASEAN” (or RIA-Fin), which consists of procedures, timelines and indicators for activities in four areas: (1) capital market development; (2) the liberalisation of financial services; (3) capital account liberalisation; and (4) ASEAN currency co-operation, with the ultimate goal of the greater economic integration of ASEAN by 2015. In 2007, ASEAN countries launched the ASEAN Economic Community (AEC) Blueprint to establish AEC. The AEC Blueprint focuses on four major areas: creation of a single market and production base; a competitive economic region; equitable economic development; and enhanced integration into the global economy. The AEC is scheduled to be completed by 2015. Regarding capital markets, the AEC Blueprint proposes a “freer flow of capital” to realise a “single market production base” in order to develop the regional financial markets and liberalise capital flows in a cautious manner. The AEC Blueprint includes the following measures:

- Strengthening ASEAN capital market development and integration by (i) achieving greater harmonisation in capital market standards in the region; (ii) facilitating mutual recognition arrangements or agreements for the cross-recognition of qualifications, education and experience of market professionals; (iii) achieving greater flexibility in language and governing law requirements for securities issuance; (iv) enhancing the withholding tax structure to promote the broadening of the investor base for ASEAN debt issuance; and (v) facilitating market driven efforts to establish exchange and debt-market linkages, including cross-border capital raising activities.
- Allowing greater capital mobility to be guided by certain basic principles, such as (i) ensuring that capital account liberalisation is orderly and consistent with member countries’ national agendas and the readiness of their economies; (ii) allowing for adequate safeguards against potential macroeconomic instability and systemic risk that may arise from the liberalisation process; and (iii) ensuring that the benefits of liberalisation are shared by all ASEAN countries through the following measures: removing or relaxing restrictions to facilitate the flow of payments and transfers for current

account transactions; and removing or relaxing restrictions on foreign direct investment, as well as implementing other initiatives that promote capital market development.

#### IV. Economic performance and policy responses during the recent financial and economic crisis

*Recovery from the current crisis was supported by macro-prudential measures and further regional co-operation*

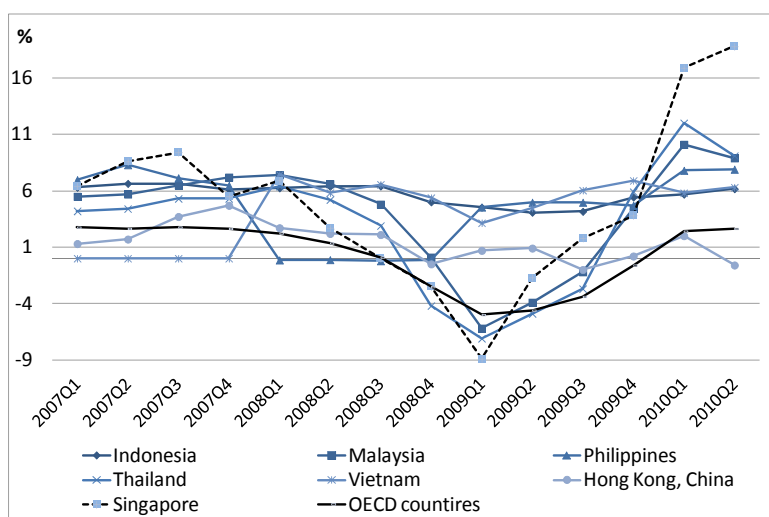
The SEA economies suffered from the current global crisis in two ways: first from the external demand shock affecting the real economy directly; and second from capital outflows, affecting the financial system (and, via feedback effects, the real economy). But SEA economies have recovered from these shocks relatively fast, due to their sound banking systems and huge fiscal stimuli. In addition, macro-prudential measures have been adopted in several economies, and regional co-operation has been strengthened to foster an increase in private bond issuance.

##### 1. SEA economies' performance during the global crisis

*Domestic private consumption has been contributing to the recovery*

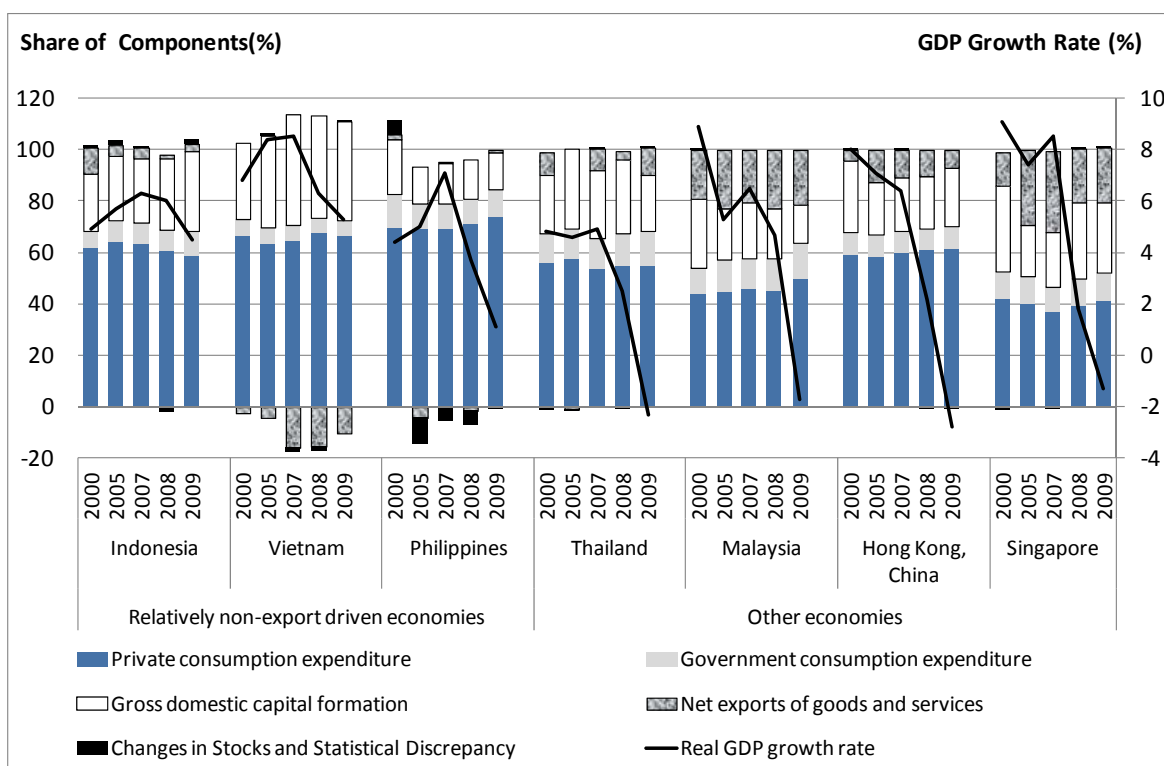
As Figure 9 shows, during the global crisis, the export-oriented emerging Asian economies experienced a heavy downturn in early 2009 and then had a V-shaped turnaround from the sharp decline in economic activity. Meanwhile, the countries that have larger domestic markets, such as Indonesia, the Philippines and Vietnam, experienced smaller downturns and are now recovering. As for the recovery, it is noteworthy that domestic private consumption, especially in the relatively non-export oriented SEA countries (Indonesia, the Philippines and Vietnam), provided a buffer against external demand shocks, and it was a driving factor for the recovery<sup>7</sup> in most of the SEA economies (Figure 10).

Figure 9. Quarterly GDP growth



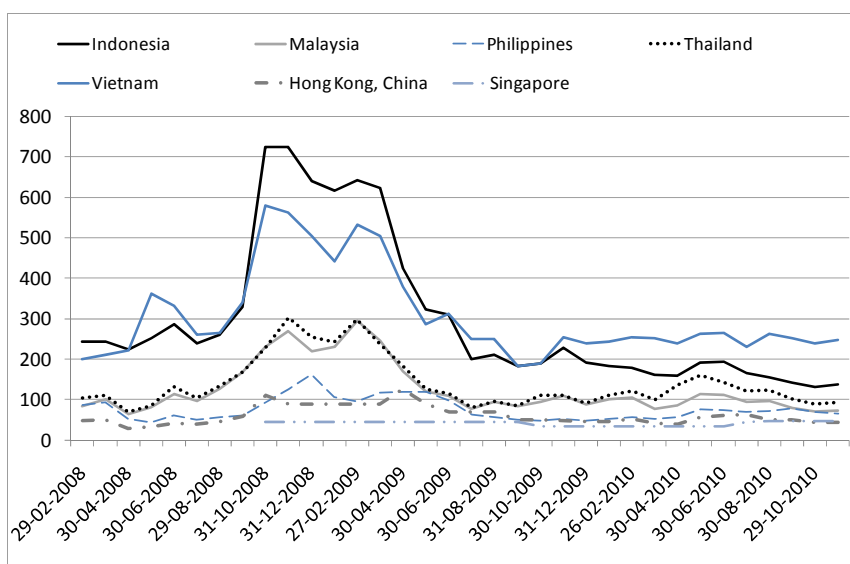
Sources: OECD, Asian Development Bank, World Bank, and national statistical offices.

Figure 10. Contribution analysis of GDP growth



Source: Asian Development Bank, Key Indicators for Asia and the Pacific 2010.

Figure 11. Sovereign CDS spreads of SEAs (since 2008)

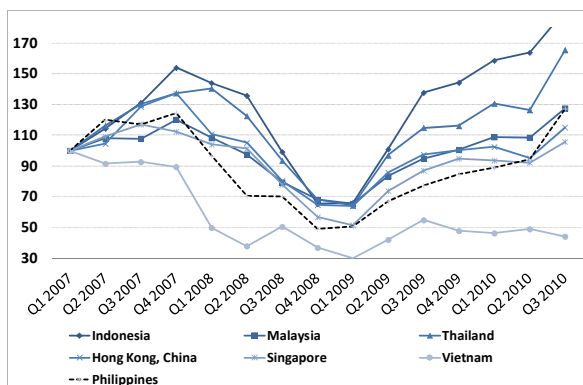


Source: Thomson Reuters Datastream.

*Despite large fiscal stimulus packages, SEA sovereign CDS spreads have stayed rather low despite the recent sovereign debt crisis*

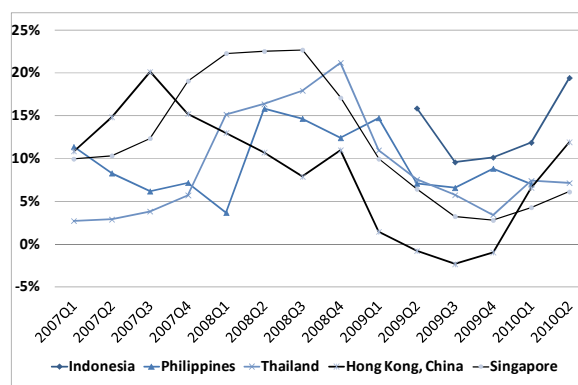
The recent recovery in the region was also supported by the unprecedented fiscal stimulus packages of these economies. The sizes of the fiscal stimulus packages are huge. For example, the size of fiscal stimulus in relation to GDP for Thailand is 18.5%, Vietnam 10.8%, Malaysia 9.9%, and Singapore 8%. These countries' relatively sound fiscal management before the crisis made it possible for them to implement these extensive stimulus packages. After the fiscal stimulus, several countries' budget balances worsened more than those of OECD countries. Nevertheless, the credit default swap rates for these economies have since settled and seem to have remained unaffected by the sovereign debt crisis in Europe (Figure 11).

Figure 12. Stock price indices



Source: Thomson Reuters Datastream

Figure 13. Bank loan growth, quarterly y/y since 2007



Source: Central banks, CEIC.

*Financial markets have also improved*

Recently, financial markets have also improved. After sharp declines, stock price indexes have been recovering since mid-2009, and bank loans are also rebounding (Figures 12 and 13). Back in September 2008 there was massive capital flight out of the region, putting downward pressure on asset prices; by mid-2009, however, given relatively healthy fundamentals and a bright economic outlook, capital inflows returned. These capital inflows, along with the recovery in the real economies, have eased the downward pressure on asset prices. Recently, several authorities in the region have begun to suspect that asset prices may have risen too fast, and they are addressing the potential problems.

*Banking systems have remained sound*

One of the crucial factors that contributed to the good performances is the soundness of the SEA banking systems. Even during the global financial crisis, the countries' key prudential ratios reflected the soundness of their financial systems, and several ratios actually continued to improve.

## 2. National policy responses

*Macro-prudential measures have been used recently to reduce market turbulence, which often stems from capital inflows*

To reduce market turbulence, which often stems from capital inflows from outside the region, several SEA economies have also adopted specific macro-prudential or capital-control measures. Especially in the regional financial centres, these measures have been adopted as forward looking measures.

- Bank Indonesia introduced policy packages in June 2010 to manage liquidity, as well as to encourage banks to conduct more transactions in the secondary market. This includes the implementation of a one-month minimum holding period for buyers of Bank Indonesia certificates in the primary and secondary markets.
- Since the 1990s, Hong Kong, China has adopted a 70% loan-to-value ratio cap for residential mortgages as part of its banking industry oversight. Hong Kong, China has also had a 60% loan-to-value ratio cap for luxury properties since 2009.
- Singapore also has a loan-to-value limit for residential loans; in February 2010, it strengthened this measure by lowering the cap from 80% to 70% and by prohibiting “interest-only” mortgages.
- In October 2010, Thailand introduced a 15% withholding tax on interest payments and capital gains on bonds held by foreign investors.

## 3. Regional policy responses

*CGIF is to provide local currency-denominated bonds with guarantees in order to promote local bond issuance*

At the ASEAN+3 Finance Ministers’ Meeting in May 2009, the Ministers agreed to establish the Credit Guarantee and Investment Facility (CGIF), which would provide local currency-denominated bonds with a guarantee in order to promote bond issuance by addressing the following issues: (i) Even quality companies, such as those rated single A by the local credit rating agencies, have difficulty in obtaining financing through bond issuance, especially of longer-term debt; (ii) financing for SMEs and infrastructure development is vulnerable to a credit crunch since it largely depends on indirect funding sources, such as bank loans.

*An independent regional surveillance unit*

In April 2010, the ASEAN Finance Ministers also agreed to establish the ASEAN+3 Macroeconomic Surveillance Office (AMRO), an independent regional surveillance unit to support the successful implementation of CMIM.

*ASEAN Regulatory Reform Dialogue*

There is also a proposal to establish an ASEAN Regulatory Reform Dialogue (ARRD), which would serve as a high-level channel for exchanging views on regulatory reform issues toward enhancing intra-ASEAN trade and investment flows.

## V. Remaining challenges

### *Several challenges remain*

This overview highlights several remaining challenges with regard to the financial markets in the SEA region, apart from the challenges stemming from relatively rigid exchange regimes and other issues.

### *Recovering capital inflows after the sudden outflows remind regional authorities of the risks that accompany these capital flows*

In general, capital flows to and from the region enable the diversification of investment risk, promote innovation and contribute to the growth in financial markets. But the difficulty of re-establishing capital inflows, after sudden capital outflows, reminds regional authorities of the problems related to large swings in capital movement. They also recognise the need to manage large and volatile capital flows by strengthening the monitoring systems in place. Recently, SEA economies have been struggling to mitigate the influences of volatile capital flows by introducing specific macro-prudential measures.

### *Expansion in the business activities of banks needs to be accompanied by enhancements in risk management*

Expanding business activities by banks in the capital markets and in the real estate sector need to be accompanied by an enhancement capacity for risk-management at financial firms. Supervisory authorities also need to maintain sufficient capacities and tools to measure, detect and react to these emerging risks. As capital flows have an impact on these markets, it is all the more important to develop these capacities. It is also necessary for the authorities to review existing regulatory frameworks to ensure efficient supervision of the evolving business activities of financial firms. Especially for SEA economies, which have separate supervisors for financial activities, it is also beneficial to review whether their institutional setups and the co-ordination framework among the authorities work effectively and efficiently. As such, it would be useful to consult the “Policy Framework for Effective and Efficient Financial Regulation” and “General Guidance and High-Level Checklist”, which was published by the OECD in 2009.

### *Supervisory authorities also need to maintain sufficient capacities to detect and react to emerging risks*

### *To enable market access for SMEs and to enhance it for larger-sized firms, debt markets should be developed in the region*

To enable better market access for SMEs, and to enhance it for larger-sized firms, debt markets should be developed in the region. But limited access to debt markets by lower-rated issuers, limited liquidity, and limited diversity in the investor base remain as obstacles. To clear these obstacles, activating and steadily developing the CGIF is important toward the issuance of local bonds with longer maturities. Implementation of the ABMI roadmap is also indispensable, since it includes the development of bond related-markets, such as repo-markets, fine-tuning the taxation systems to enhance cross-border transactions, development and maintenance of a benchmark yield curve, etc.

### *Further financial inclusion of households can support domestic private consumption*

During the recent global crisis, domestic private consumption in the region played an important role in cushioning the negative effects of external demand shocks and acted as catalyst for the recovery. On the other hand, as Table 8 shows, the household sector’s access to financial markets in the region is limited in comparison with the OECD countries. Therefore, further financial inclusion of the household sector could raise domestic private consumption in the region through more efficient savings and investment vehicles.. Financial inclusion could be improved by promoting financial education at the household level. As the complexity and risks of household finances grow, strengthening financial consumer protection will also be necessary.

**Table 8. Access to financial services<sup>8</sup>**

Indonesia	40
Malaysia	60
Philippines	26
Thailand	59
Vietnam	29
Hong Kong, China	-
Singapore	98
OECD average	88

*Notes:* OECD average data does not include: Australia, Iceland, Japan, and New Zealand.

*Source:* World Bank.

## NOTES

<sup>1</sup> Ministry of Finance, Japan (1998), Bert (1999).

<sup>2</sup> Panel b does not include France, Luxembourg and the Netherlands 1998-1999; Iceland 2008 and Norway 2007, 2008. Panel c does not include Turkey 2000-2005, 2008; Luxembourg, New Zealand, Poland, Slovak Republic, Slovenia. Panel d does not include Luxembourg and Slovenia. Panel g does not include Denmark 1997, 1998, Greece 1998, Luxembourg 1997-2001; New Zealand 1997-1999; Slovak Republic 2001. Panel h does not include Denmark 1998; Iceland 1997, 1998; the Netherlands 2004 and Slovenia 2002.

<sup>3</sup> Panel a does not include: Australia, Austria, Belgium, Ireland, Norway, Poland, Portugal, Sweden, Indonesia, Hong Kong 1997; Denmark, Iceland 1997, 2008, 2009; Finland 1997, 2009; France 2009; Germany, Switzerland, Thailand 1997, 2009; Iceland 1997, 2008, 2009; Luxembourg 1997, 2008; Netherlands 1997, 2008, 2009; New Zealand, Vietnam 1997-2009; Singapore 1997, 1998. Panel b does not include Australia, Austria, Belgium, Greece, Ireland, Norway, Korea, Luxembourg, Netherlands, Norway, Sweden, Switzerland, Hong Kong, Singapore 1997; Denmark, Iceland 1997, 2008, 2009; Finland 1997, 2009; France 2008, 2009; Germany 2009; Italy 2009; New Zealand, Vietnam 1997-2009; Thailand 2009. Panel c does not include Australia, Belgium, Canada, Greece, Hungary, Ireland, Japan, Korea, Norway, Spain, Sweden 1997; Austria 1997-2000; Denmark Finland 1997-2000, 2006-2009; France 2009; Germany 2008-2009; Italy 2005, 2009; Luxembourg, New Zealand, Vietnam 1997-2009; Netherlands 1997, 1998, 2007-2009; Poland 2007; Portugal 1997-1999; Slovak Republic 1997-1998; Slovenia 1998; Switzerland 1997-2000, 2009; UK 2008; Indonesia 1997; Thailand 1997, 2009; Hong Kong 1997-2000; Singapore 1997-1998. Panel d does not include Australia, Austria, Belgium, Ireland, Netherlands, Luxembourg, Norway, Portugal, Sweden, Switzerland, Turkey, Hong Kong and Singapore 1997; Denmark 1997, 2008-2009; Finland, France 1997, 2009; Germany 2009; Greece 1997-1998; Iceland 1997, 2008, 2009; Spain 1997, 2009; New Zealand, Vietnam 1997-2009.

<sup>4</sup> In Thailand, the Financial Sector Master Plan Phase II which will be implemented during 2010-2014 includes reduce of legacy NPL and NPA as one of the targets.

<sup>5</sup> The ROE for the banking system in Thailand in 2007 is -17.1% and in 2008 -148.3%, as reported by the World Bank. On the other hand, according to Bank of Thailand data, net profits of the banking sector in both years were positive and the IMF reports its ROE in 2007 as 7.3%. As the differences between the data for 2007 and 2008 from the World Bank and other resources are relatively large, the ROEs of Thailand for 2007 and 2008 are not shown.

<sup>6</sup> Adams (2008).

<sup>7</sup> By the last quarter of 2009, even the countries that experienced a sharp decline in domestic consumption, Malaysia, Singapore and Thailand, saw their consumption recover strongly.

<sup>8</sup> The composite indicator measures the percentage of the adult population with access to an account with a financial intermediary.

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