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Strengthening Financial Infrastructure

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Abstract

By 2030, many Association of Southeast Asian Nations (ASEAN)[1], People's Republic of China (PRC), and India (ACI) economies are expected to achieve developed economy status, and this will require a substantial contribution from the financial sector. The financial sector plays a number of key roles in the process of economic development and growth, including facilitating the trading of goods and services; evaluating investment projects; mobilizing and pooling savings to fund projects; transferring funds to where they are needed; monitoring the activities of capital users; distributing and monitoring risk; and providing investors with diverse savings products. However, in contrast to the high levels of manufacturing productivity in the region, development of the financial sector generally has lagged in Asia, largely due to heavy regulation, and, in some cases, insufficient scale. Of course, the process of innovation must be carefully managed, as experience shows that financial innovation can increase risks as well. Financial inclusion needs to be broadened, and financial stability strengthened. Finally, in view of the fragmented state of Asian financial markets, many of which lack economies of scale, financial integration can contribute to promoting economic development by reducing costs to borrowers and investors and increasing competition.

This study provides comparative perspectives on the current and prospective situation of financial market development in ASEAN, the PRC, and India, identifies key priorities for strengthening financial infrastructure to promote financial development and regional integration, and produces policy recommendations at the national, sub-regional and regional levels. The four priority areas covered by the study are: market development, opening, and efficiency; financial inclusion; achievement of financial stability; and financial integration.

JEL Classification: E52, F32, G21, G22, G24, G28

[1] ASEAN includes Brunei Darussalam, Cambodia, Indonesia, the Lao Democratic Republic, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Viet Nam.

Contents

1. INTRODUCTION

By 2030, many ACI[2] economies are expected to achieve developed economy status, and this will require a substantial contribution from the financial sector. The financial sector plays a number of key roles in the process of economic development and growth, including facilitating the trading of goods and services; evaluating investment projects; mobilizing and pooling savings to fund projects; transferring funds to where they are needed; monitoring the activities of capital users; distributing and monitoring risk; and providing investors with diverse savings products. It is no exaggeration to say that the financial sector is the lifeblood of the economic system, and that developing a financial infrastructure capable of supporting sustainable long-term growth in the region is a critical requirement. Moreover, a malfunctioning financial system can have negative consequences for the real economy, so safeguarding financial stability from both external and internal risks is a key policy responsibility. This lesson has been repeatedly brought home as a result of recent major financial crises.

The financial sector must grow and adapt with the changing needs of Asian economies as they develop. In particular, as many ACI economies move toward developed economy status by 2030, higher levels of economic activity and increased financial wealth will call for increasing sophistication of the financial system in terms of products and services provided. Massive investment requirements to support growth will require innovations in financing. However, in contrast to the high levels manufacturing productivity in the region, development of the financial sector generally has lagged in Asia, largely due to heavy regulation, and, in some cases, insufficient scale. Of course, the process of innovation must be carefully managed, as experience shows that financial innovation can increase risks as well. Finally, in view of the fragmented state of Asian financial markets, many of which lack economies of scale, financial integration can contribute to promoting economic development by reducing costs to borrowers and investors and increasing competition.

The financial sector in Asia has generally performed well in supporting the growth process, as shown by Asia's unmatched growth record. Nonetheless, maintaining a strong growth path and meeting the needs of savers and investors in the next two decades will provide many new challenges to Asia's financial sector. These include the need to promote financial inclusion, to accommodate the aging of Asian populations, and to support green growth. The study aims to provide comparative perspectives on the current and prospective situation of financial market development in ASEAN, the PRC, and India, identify the key priorities for strengthening financial infrastructure to promote financial development and regional integration, and produce policy recommendations at the national, sub-regional and regional levels. The four priority areas covered by the study are: market development, opening and efficiency; financial inclusion; financial stability; and financial integration. Regarding financial integration, the process envisaged for the ASEAN Economic Community (AEC) by 2015 can provide a model for wider regional integration by 2030. Measures and issues covered in this report include:

1. evaluating the current situation of broad indicators of financial market development, openness, and efficiency in ASEAN, the PRC and India;

2. deepening financial markets, including: development of infrastructure for derivatives, foreign exchange and swap transactions; harmonization of regulatory and tax frameworks; strengthening of government debt management; development of mechanisms for promoting public and private sector financing for infrastructure and other needs; and financial integration;

[2] ASEAN, PRC, and India.

3. improving the efficiency of the financial sector, including: payments, clearing and settlement; competition policy; and sectoral development issues;

4. expanding access to financial services for individuals and micro-, small, and medium-sized enterprises;

5. improving microprudential surveillance and regulation of the financial sector;

6. strengthening frameworks for macroprudential policy for financial stability, both at the national and regional levels, including: domestic regulatory structures and management of capital flows;

7. improving exchange rate coordination, including increased regional cooperation; and

8. coordinating regional financial institutions with the global financial and monetary system.

Section 2 describes the overall vision for financial development. Section 3 examines ways to promote deepening, opening and increased efficiency of financial markets; Section 4 analyzes ways to promote financial inclusion; Section 5 analyzes ways to enhance financial stability; Section 6 examines ways to deepen financial integration and Section 7 provides policy recommendations at the national, sub-regional and regional levels.

2. OVERALL VISION FOR FINANCIAL DEVELOPMENT

We need a vision for financial development in ASEAN-PRC-India that has to be set within the overall vision for economic, social, and environmental development for the region. The Asian Development Bank's recent book on *Institutions for Regional Integration* sets out the following vision for an Asian economic community:

- "an integrated market free of restrictions on flows of goods and services;
- deeper and more liquid financial markets open to cross-border financial flows, with high standards of oversight and strong protection for national and foreign investors;
- effective frameworks for coordinating macroeconomic and exchange-rate policies, taking into account global challenges and differing national circumstances;
- regional forums and dialogues to address vital social issues, such as poverty, exclusion, income insecurity, migration, aging, health, and environmental threats; and
- a consistent voice to project regional concerns in global policy forums and enhance responsible global governance." (ADB 2011a: 201)

Notably, four out of the five points touch on financial sector aspects, including liberalization of trade in financial services, financial reform and regulation, regulation of capital flows, and reform of the international monetary system, including the governance of international financial institutions. Table 1 lays out some suggested priorities and policy measures from the report for the financial sector.

Table 1: Priorities and Policy Measures for the Financial Sector

Priorities	Policy measures
● Increase resilience against financial crises	● Improve financial market surveillance
● Develop larger, deeper regional financial markets	● Promote the harmonization of standards and mutual recognition of regulations
● Improve returns for investors and reduce capital costs to firms by strengthening the regional intermediation of savings	● Strengthen local-currency bond markets and their infrastructure
	● Liberalize capital accounts and cross-border financial services in a prudent manner
Source: ADB (2010:206)	

For ACI, the overall vision for financial development should include the following four main points:

i. deepening, opening, and increased efficiency of financial markets;

ii. expansion of access to financial services, i.e., financial inclusion;

iii. enhanced financial stability; and

iv. deeper financial integration.

If these factors are promoted effectively, this should result in a sharply expanded share of the ACI financial sector in the global financial market. Table 2 shows our projections of the share of ACI in the world total in 2030 for four asset classes: bank deposits; credit to the private sector by banks; stocks; and private sector local currency bonds. For all categories, the global shares are expected to grow dramatically by 2030, with those for bank deposits reaching over 40% of the world total, and those for private credit by deposit money banks and stocks to reach about one-third of the global total. The share of private bonds starts from a much lower base, but is expected to increase over three-fold by 2030 as a result of measures aimed at promoting the development of local currency bond markets in the region. The rise of the ACI share reflects both the expected increase of the ACI share in global gross domestic product (GDP) and projected increases in the ratio of financial assets to GDP in some countries, especially India, Indonesia, the Philippines, Thailand, and Viet Nam. By far the biggest contribution to the rise in the overall ACI share comes from the PRC, followed by India.

Table 2: Development of ACI Financial Assets

	2010 US$ bn		Share of world total, %	
	2010	2030	2010	2030
Bank deposits				
ACI	13,390	53,768	23.7	44.1
ASEAN	1,339	4,194	2.4	3.4
PRC	10,945	42,332	19.4	34.7
India	1,106	7,243	2.0	5.9
Private credit by deposit money banks				
ACI	8,278	32,998	16.7	32.9
ASEAN	966	3,023	1.9	3.0
PRC	6,679	25,831	13.4	25.8
India	633	4,144	1.3	4.1
Stock market capitalization				
ACI	10,686	42,442	19.4	34.4
ASEAN	1,596	5,071	2.9	4.1
PRC	7,474	28,907	13.6	23.4
India	1,616	8,464	2.9	6.9
Private bond market capitalization				
ACI	2,162	17,203	4.1	13.7
ASEAN	348	1,704	0.7	1.4
PRC	1,663	12,866	3.2	10.2
India	151	2,632	0.3	2.1

Source: CEIC Database Company, IMF IFS database, BIS Quarterly Review, World Federation of Exchanges, available at: http://www.world-exchanges.org/statistics/annual/2011/equity-markets/domestic-market-capitalization (accessed 8 August 2011), authors' estimates.

3. PROMOTING FINANCIAL DEEPENING, OPENING, AND EFFICIENCY

This section describes the current situation of financial development in the ACI region, and measures to promote further financial deepening, opening, and increased efficiency.

3.1 Current situation of financial development, openness, and efficiency

The nature and progress of Asian financial market deepening in the past decade can be analyzed using a methodology similar to that of the World Bank's Financial Development and Structure Database (Lee 2008; Capannelli, Lee, and Petri 2009). Asia's progress in financial deepening can be compared with other countries' using the indicators provided in Beck and Demirguc-Kunt (2009) for four income levels: high, upper middle, lower middle, and low. Indicators of financial size, efficiency, and internationalization present a clear picture of progress in Asia.

Financial Size

Available indicators of financial size all suggest steady progress in ACI economies (Table 3). These indicators are central bank assets, bank deposits, deposit money bank assets, liquid liabilities (cash plus demand deposits and interest-bearing liabilities of banks and other financial institutions), private credit by deposit money banks, stock market capitalization, and private

bond market capitalization (all computed as a ratio to nominal GDP). Typically, the ratio of central bank assets to GDP falls as income rises, while the all other measures rise. Private bond market capitalization is used because it is highly correlated with income levels, while public bond market capitalization shows almost no correlation with income levels.

Table 3: Measures of Financial Sector Size

	Median ratio by income class 2007				ASEAN		PRC		India		ACI	
		Upper	Lower									
Ratio to GDP	High	Middle	Middle	Low	2000	2009	2000	2009	2000	2009	2000	2009
Central bank assets	0.01	0.01	0.04	0.02	0.08	0.03	0.02	0.05	0.08	0.02	0.07	0.03
Bank deposits	0.87	0.43	0.39	0.20	0.73	0.83	1.04	1.47	0.42	0.64	0.73	0.89
Deposit money bank assets	1.14	0.55	0.31	0.15	0.85	0.78	1.13	1.07	0.41	0.65	0.83	0.80
Liquid liabilities	0.90	0.45	0.43	0.27	N.A.	1.05	N.A.	1.57	N.A.	0.75	N.A.	1.08
Private credit by deposit money banks	1.01	0.47	0.31	0.14	0.70	0.77	1.06	1.10	0.26	0.47	0.69	0.77
Stock market capitalization	1.05	0.42	0.30	0.26	0.87	0.77	0.38	1.00	0.36	0.90	0.73	0.82
Private bond market capitalization	0.36	0.16	0.03	0.00	0.13	0.17	0.07	0.19	0.00	0.05	0.10	0.15

*Simple average

GDP= Gross Domestic Product

Sources: Beck and Demirguc-Kunt (2009) and authors' estimates.

Table 3 compares the values for ASEAN, the PRC, India and all of ACI in 2000 and 2009 with the median values by income group of the worldwide sample for 2007 (Beck and Demirguc-Kunt 2009). Data for ACI are simple averages of the ratios for the PRC; India; Indonesia; Malaysia; the Philippines; Singapore; Thailand; and Viet Nam. Except for central bank assets, all of the indicators rise significantly and monotonically with regard to GDP level.

Table 2 shows that ACI countries on average are, if anything, over-endowed relative to the average of high income countries in terms of liquidity and banking sector size, and somewhat lower than high income countries in terms of deposit money bank assets, private credit by deposit money banks, and stock market capitalization. The PRC tends to score highest on these measures, with ASEAN in the middle and India lowest, with India ranging between the medians for high income and upper middle income countries. However, they are still lagging in terms of private bond market capitalization. Although central bank asset ratios have fallen as expected, they are still consistent with the level of lower middle income countries. In contrast, bank deposits, deposit money bank assets, and liquid liabilities rose significantly over the period. This is rather remarkable, given the diversity of financial conditions in Asia. Private credit extended by deposit money banks is somewhat lower than the high income median, mainly due to low values for India, Indonesia, and the Philippines.

Data on financial markets are mixed. For ACI as a whole, stock market capitalization rose from .73 times GDP in 2000 to 0.82 in 2009. This reflected big increases in this ratio in the PRC and India, which offset declines in ASEAN as a result of the global financial crisis. On the other hand, private bond market capitalization clearly lags behind with a ratio of only 0.15 times GDP,

in line with the median for upper middle income countries. In summary, ACI has large banking sectors and stock markets, but bond markets, especially private sector bonds, are less developed by comparison.

Table 4 shows, as percent of GDP, the three main categories of private sector liabilities and total private liabilities for individual countries in 2000 and 2009. All ACI countries showed substantial increases in total private liabilities relative to GDP, especially in the PRC, India, and Viet Nam. Patterns by liability category were mixed. Private bank credit fell in Malaysia, the Philippines, and Thailand in the aftermath of the Asian financial crisis of 1997–1998. Stock market capitalization rose in all ACI countries, while private bond market capitalization fell only in Singapore. However, among ACI countries, private bond market capitalization is high only in Malaysia, which underlines the scope for further development of this sector.

Table 4: Sources of Private Sector Funding as % of GDP

% of GDP	Private credit by deposit money banks		Stock market capitalization		Private bond market capitalization		Total	
	2000	**2009**	**2000**	**2009**	**2000**	**2009**	**2000**	**2009**
ASEAN*	70.4	76.9	72.4	76.2	12.6	16.9	141.3	167.1
Indonesia	17.8	24.0	16.3	33.0	1.4	1.5	35.5	58.6
Malaysia	123.1	113.2	124.7	132.6	32.9	49.6	280.7	295.3
Philippines	38.2	29.9	32.0	47.6	0.2	1.0	70.5	78.5
Singapore	96.7	102.2	164.8	169.5	16.9	13.2	278.5	284.9
Thailand	116.3	95.2	24.0	52.4	11.8	19.1	152.0	166.8
Viet Nam	30.4	96.7	--	21.8	--	--	30.4	118.6
PRC	106.4	110.0	48.5	100.3	7.0	19.0	161.9	229.4
India	26.4	46.5	32.2	85.4	0.5	4.6	59.1	136.6
ACI*	69.4	77.2	63.2	80.3	10.1	15.4	133.6	171.1
Others								
Hong Kong, China	150.9	152.4	364.4	1088.6	17.2	14.2	532.5	1255.2
Japan	195.3	107.2	67.6	67.1	47.4	37.8	310.4	212.1
Korea	69.7	105.0	32.2	100.3	51.5	69.3	153.4	274.7

Notes: GDP= Gross Domestic Product; PRC= People's Republic of China; —= data not available;

* Unweighted averages; data for other ASEAN countries not available.

Sources: IFS Feb 2011 CD, CEIC Data Company, available at: http://www.ceicdata.com,

(accessed 12 April 2011), BIS Quarterly Review Jul 2012, WDI.

Life insurance premiums as a percentage of GDP tend to grow with per capital income. (Premiums are shown, as data on assets are not available for most economies.) Table 5 shows very high levels for Hong Kong, China; and Singapore, as befits their status as international financial centers. Malaysia's level is relatively high at 6.3% of GDP. If one takes the Republic of Korea's (henceforth, Korea) level of 4.5% of GDP as a longer-term benchmark for development, then countries such as the PRC and Thailand are relatively close, while India, Indonesia, the Philippines, and Viet Nam have further to go.

Table 5: Insurance and mutual fund industry development

	Total Insurance Premiums		Mutual Fund Assets	
% of GDP	**2000**	**2010**	**2000**	**2010**
ASEAN*	4.7	4.8	47.5	106.8
Indonesia**	1.0	1.6	0.4	2.3
Malaysia	--	6.3	12.2	49.3
Philippines**	1.3	1.0	--	1.1
Singapore	14.1	14.2	169.8	461.1
Thailand	2.5	4.2	7.7	20.1
Viet Nam+	--	1.4	--	--
PRC	1.6	3.7	0.9	6.2
India	--	2.3	6.4	8.5
ACI*	4.2	4.4	35.0	81.9
Others				
Hong Kong, China**	32.9	88.2	184.1	442.9
Korea	5.5	4.5	17.7	20.9

Notes: *Unweighted averages. Instead of 2010 data, ** denotes 2009 and + denotes 2008;

-- denotes not available; data for other ASEAN countries not available.

Source: CEIC database, available at: http://www.ceicdata.com, (accessed 1 August 2011).

The asset management industry is expected to grow rapidly as a result of rising incomes, high savings rates, and the ageing of populations in most economies. Table 4 shows that the share of assets under management in GDP tends to rise with per capita income, although the spread is relatively wide. Hong Kong, China; and Singapore have very high shares of assets under management in GDP, befitting their roles as international financial centers. Aside from these, Malaysia has the highest share in the region by far, followed by Thailand and Korea, which have shares of around 20% of GDP. This suggests that this ratio will rise toward at least 20% of GDP in countries such as the PRC and India as they develop further.

Financial Openness

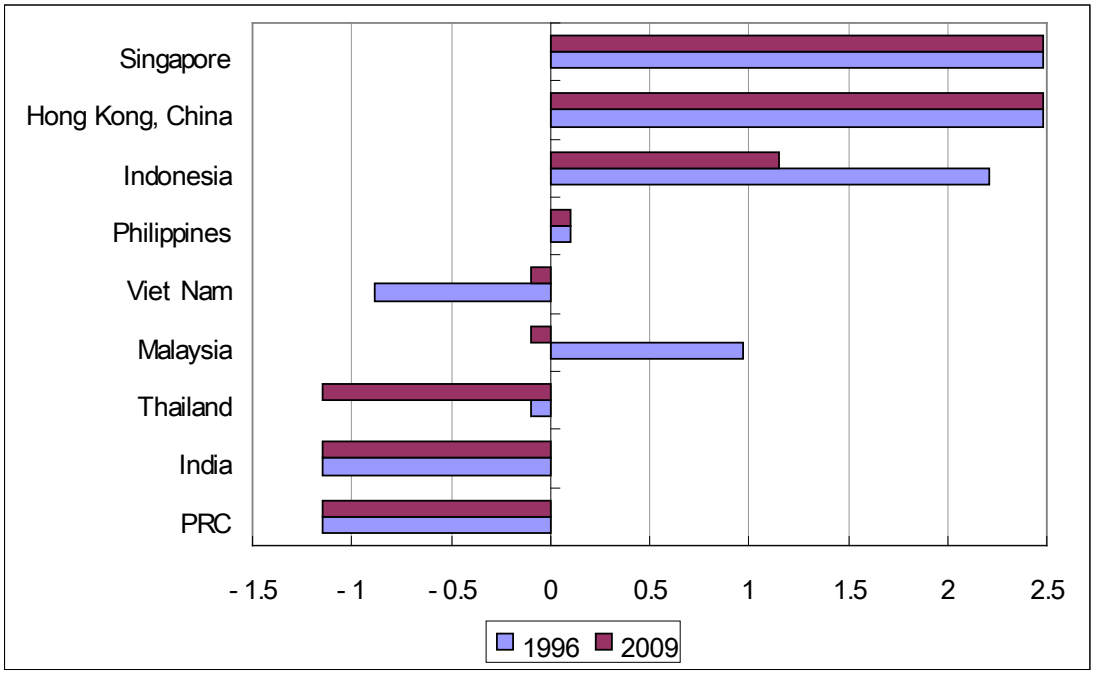
Along with economic and financial development, financial systems tend to become more open as well, i.e., restrictions on capital accounts tend to be eased. However, capital account regimes can become more restrictive as well, particularly if countries experience shocks from episodes of rapid capital inflows or outflows. A certain level of capital market openness is a prerequisite for regional financial integration, which is discussed in Section 6 below.

Financial openness is not easy to measure, and there are two broad approaches to doing so—*de jure* and *de facto*. De jure measures assess the restrictiveness of published laws and regulations regarding foreign exchange and capital account transactions. These are typically based on the International Monetary Fund (IMF)'s *Annual Report on Exchange Arrangements and Exchange Restrictions* (AREAER) (IMF 2008). Examples of this approach include Quinn (2003) and the Chinn-Ito Index (Chinn and Ito 2008). The Chinn-Ito Index is compiled by evaluating four major categories of restrictions on external accounts: (i) the presence of a multiple exchange rate regime, (ii) the presence of restrictions on current account transactions, (iii) the presence of restrictions on capital account transactions, and (iv) the presence of a requirement of the surrender of export proceeds. The index score ranges from -2.5 (fully closed) to +2.5 (fully open).

Figure 1 shows the values for the Chinn-Ito Index for major ACI economies plus Hong Kong, China in 1996 and 2009. The data show both a wide range and substantial changes over the period in both directions. Hong Kong, China; and Singapore are rated as fully open, consistent

with their status as regional financial centers, while both the PRC and India have maintained relatively low ratings of -1.15, i.e., relatively closed. Indonesia and Viet Nam have become significantly more open, while Malaysia and Thailand have become less open, primarily as a result of their experiences during the Asian financial crisis of 1997–1998. This scoring suggests three broad categories: open; moderately open; and relatively closed.

Figure 1: Chinn-Ito Indices for Major ACI Economies



Source: Chinn-Ito (2008).

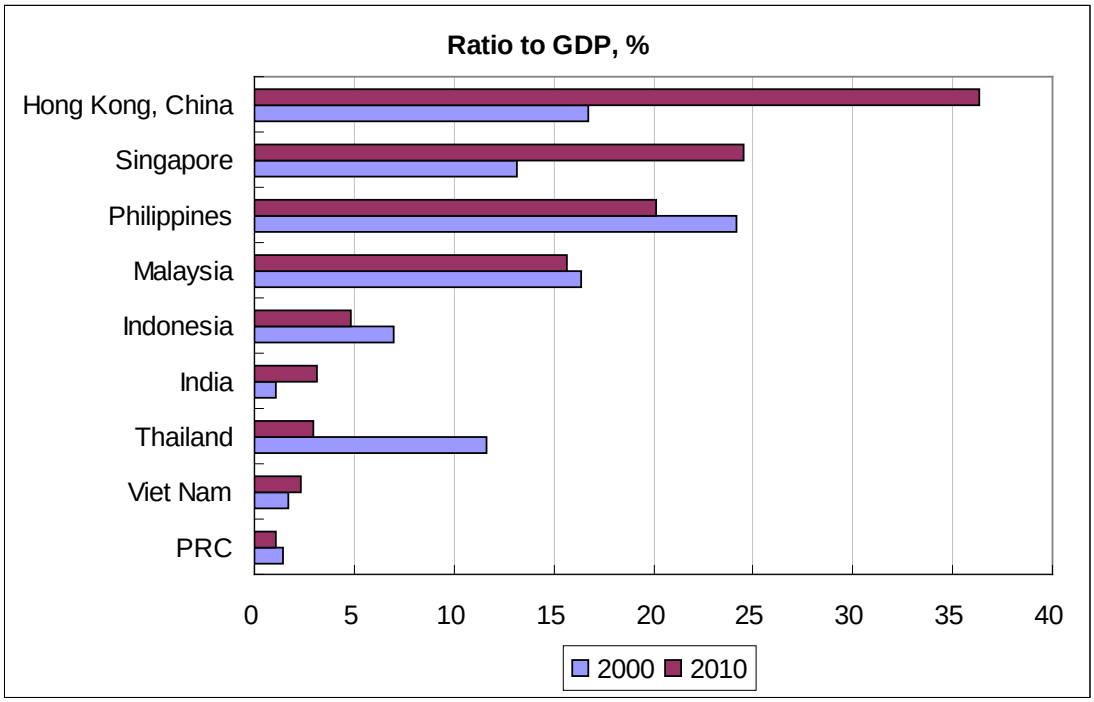
However, it is widely recognized that de jure measures may not reliably capture the effective degree of capital market openness, since application and enforcement of rules may vary widely, and details of regulations not captured in the index may have significant implications for market openness. For example, as is discussed below, both the PRC and India regulate inflows by foreign institutional investors, but the PRC has established strict quotas, while India has no quotas.

The alternative approach is to measure the de facto capital market openness based on estimates of actual capital flows. One of the main sources in this regard is Lane and Milesi-Ferretti (2006), who estimated ratios to GDP of gross external assets and liabilities for 145 countries for 1970–2004. The essential idea was that a higher level of external assets and liabilities (relative to GDP or some other measure) indicated the effective openness of capital markets. However, there are many difficulties with this approach. First, their data included official reserves, which reflect official currency policy, and hence do not necessarily say much about capital market openness. Second, being a stock, the measure tends to rise over time, even though the actual degree of openness may not have changed. Third, the appropriate normalizing variable is unclear, since using either nominal GDP or total trade can introduce various biases and distortions depending on the openness of the economy to trade and other factors. Finally, the series has not been updated beyond 2004.

Beck and Demirguc-Kunt (2009) examined a number of globalization indicators, including, the ratio to GDP of: international debt securities outstanding; net issuance of international debt

securities, loans from non-resident banks, and remittances; and the ratio of offshore deposits to bank deposits. However, only the level of outstanding international debt securities showed a clear and consistent correlation with income levels. Figure 2 shows the ratio of international debt securities to GDP for the major ACI countries.

Figure 2: Ratio of International Debt Securities to GDP



Source: BIS Quarterly Review, June 2011, CEIC Database Co. Available at www.ceic.com (accessed 9 September 2011).

The distribution of values is similar to that of the Chinn-Ito de jure index, with Hong Kong, China; and Singapore being the most open and India, Thailand, and the PRC being relatively closed. Thailand clearly became more closed since the Asian financial crisis of 1997–1998, and the Philippines and Malaysia showed a similar tendency, although more muted. Viet Nam scores as less open on this measure than the de jure measure, suggesting that the de jure measures may not adequately capture the effective restrictions on issuance activity.

Financial Efficiency

The measures of financial sector efficiency shown in Table 6 (net interest margin, cost to income ratio, loan to deposit ratio, return on assets, and return on equity) are not as closely correlated with income levels as the size measures in Table 3. As in Table 3, Table 6 shows the median values for the four income groups in 2007, and the comparable average data for the three subregions of ACI and the total in 2001 and 2008.[3] While the first three measures generally rise with income, there is little or no change in the net interest margin or cost-to-income ratios. The ratios for returns on assets and equity are actually highest in low income countries; the increased competition and capital deepening that accompany higher income levels presumably helps to drive them down.

[3] Data for 2000 are not available.

Table 6: Measures of Financial Sector Efficiency and Integration

	Median ratio by income class 2007				ACI*	
	High	Upper Middle	Lower Middle	Low	2001	2008
Net interest margin	0.06	0.06	0.06	0.02	0.03	0.03
Cost to income ratio	0.60	0.58	0.57	0.50	0.74	0.56
Loan to deposit ratio	1.00	0.80	0.85	0.60	0.93	0.85
Return on assets (%)	1.50	1.90	1.60	2.00	0.84	1.38
Return on equity (%)	16.0	15.0	15.0	21.0	15.3	-3.8
bonds/GDP	0.41	0.19	0.07	0.03	0.11	0.10

GDP= Gross Domestic Product

Note: *Simple average.

Source: Beck and Demirguc-Kunt (2009) and Bankscope database, available at: www.bankscope.com (accessed 7 March 2010).

Asian performance in this category is decidedly mixed. In all three subregions, the net interest margin changed little over the period, and is still close to that of the low income level. The cost-to-income and loan-to-deposit ratios mostly fell in 2008, especially in the PRC, close to or in some cases lower than the low income level. Of course, the latter proved to be a good thing during the financial crisis, as it meant minimal dependence on wholesale sources of funding in most countries. Returns on assets and equity improved markedly between 2001 and 2008 in the PRC and India, but are still quite low compared with global levels, while that for ASEAN was negative in 2008. The generally low level of financial efficiency in 2008 points to the need for further financial reform, despite improvements between 2001 and 2008.

Financial Soundness and Governance Measures

Great strides have been made in improving financial soundness since the 1997–1998 Asian crisis. Capital adequacy ratios actually fell on average somewhat between 2000 and 2009, but were at high levels. On the other hand, nonperforming loans (NPLs) in the region fell dramatically from an unweighted average of 14.1% of total loans in 2000 to only 3.4% in 2009 (Table 7), with all countries showing marked improvement. Especially dramatic improvements were seen in Indonesia, Malaysia, the Philippines, and Thailand. While much of this improvement could be attributed to sustained economic expansion since 2000, structural improvements played a role as well.

Table 7: Measures of Financial Stability and Governance

	Capital adequacy ratio, %		Loans, % of Total		Regulatory quality+		Rule of Law+	
Country	**2000**	**2009**	**2000**	**2009**	**2000**	**2009**	**2000**	**2009**
ASEAN*	16.4	15.6	14.4	4.0	0.3	0.3	0.1	0.1
Indonesia	21.6	17.5	18.8	3.8	-0.3	-0.3	-0.8	-0.6
Malaysia	12.5	14.6	15.4	3.8	0.4	0.3	0.4	0.5
Philippines	16.2	15.8	16.6	4.6	0.1	0.0	-0.5	-0.5
Singapore	19.6	16.5	3.4	2.3	2.0	1.8	1.4	1.6
Thailand**	11.9	13.8	17.7	5.7	0.5	0.3	0.5	0.0
Viet Nam	--	--	--	--	-0.7	-0.6	-0.4	-0.4
PRC	13.5	10.0	--	1.6	-0.3	-0.2	-0.4	-0.3
India	11.1	13.2	12.7	2.4	-0.1	-0.3	0.2	0.0
ACI*	15.3	14.6	14.1	3.5	0.2	0.2	0.0	0.0
Others								
Hong Kong, China	17.8	16.6	6.1	1.5	1.7	1.8	0.9	1.5
Korea	10.5	14.2	6.6	1.5	0.6	0.0	1.4	0.0
Taipei,China**	--	11.4	--	1.2	--	1.1	--	0.8

Note: * Unweighted average; ** 2008 data instead of 2009; +Scale from -2.5 to +2.5.

Sources: IMF Global Financial Stability Report, Apr 2010;

The Worldwide Governance Indicators (WGI) project website

http://info.worldbank.org/governance/wgi/index.asp (accessed 15 April 2011).

Qualitative measures of governance and regulatory efficiency have shown much less evidence of progress. For example, for ACI as a whole, the World Bank's indices for Regulatory Quality and Rule of Law (from its survey of World Governance Indicators) were both stable between 2000 and 2009. Improvements in some countries were partly offset by deterioration in Thailand and India.

3.2 Ways to promote financial deepening and opening

Banks have been the workhorse of the Asian economic growth model, partly because they could be influenced by policymakers to lend in line with development policy objectives, and partly because they could develop long-term relationships with borrowers and thereby exercise effective oversight. However, the Asian financial crisis of 1997–1998 highlighted problems of inadequate bank governance and regulation. This led both to an overhaul of banking sectors and to a recognition of the need to develop bond markets as a "spare tire" for financing during times of crisis. Numerous initiatives have been undertaken to promote bond market development, including the Asian Bond Fund Initiative (ABMI) and Asian Bond Funds (ABF), but further work needs to be done in this area for Asian bond markets to achieve their potential, particularly with regard to corporate bonds. Progress in this area can be achieved in a number of dimensions, including improving the infrastructure related to securities and foreign exchange (FX) markets; promoting coverage by credit rating agencies; developing mechanisms to support infrastructure financing, etc.; strengthening government debt management; enhancing the ABMI and ABF programs; improving financial operating efficiency, including payment systems, clearing and settlement; and addressing sectoral competition issues.

Infrastructure related to securities and fx markets

Batten, Hogan, and Szilagyi (2009) and Spiegel (2009) provide good summaries of steps that can be taken to deepen regional bond markets. Globally, the great majority of bonds (88.2%) are fixed rate with simple pricing features. Issuers of such bonds will normally require the means to hedge the currency risk associated with local currency bond issuance. The long-term viability of this segment is thus closely linked to the presence of: (1) highly liquid foreign exchange and derivatives markets that facilitate risk management and transformation; (2) regulations that facilitate cooperation with market participants; and (3) benchmark issues and competitive pricing between markets (Batten, Hogan, and Szilagyi 2009). Governments can improve their debt management. Risk-free benchmarks are an integral and necessary requirement for pricing and hedging in the corporate bond market. Ultimately, the risk-free government bond provides the benchmark for credit spreads. Thus, it is critical to recognize that adequate liquidity must be maintained, irrespective of fiscal requirements.

It is crucial to expand credit rating agencies' coverage of private issues by encouraging regional national rating agencies and promoting activities by global rating agencies (Spiegel 2010). Global and regional rating agencies have their strengths and weaknesses, but the best strategy is likely to be one that encourages additional coverage by both. However, the conflicts of interest that have compromised the independence and impartiality of ratings must be addressed. Fortunately, Asia already has a large number of national credit rating agencies, as shown in Table 8.

Table 8: National Credit Rating Agencies in Asia

Country	Number of local CRAs	Names
PRC	9	Centrus Credit Rating Co., Ltd., Chengxin International Credit Rating Co., Ltd., China Lianhe Credit Rating, Co. Ltd., Dagong Global Credit Rating Co., Ltd., Shanghai Brilliant Credit Rating Co., Ltd., Shanghai Credit Information Services Co., Ltd., Shang
India	5	Credit Analysis & Research Ltd (CARE), CRISIL, Ltd., Investment Information and Credit Rating Agency (ICRA), ONICRA Credit Rating Agency of India, Ltd., SME Rating Agency of India Limited (SMERA)
Indonesia	2	P.T. Kasnic Credit Rating Indonesia – Indonesia, P.T. PEFINDO Credit Rating
Korea, Rep. of	4	Korea Investors Service, Inc. (KIS), Korea Ratings Corporation, National Information & Credit Evaluation, Inc. (NICE), Seoul Credit Rating & Information, Inc.
Malaysia	2	Malaysian Rating Corporation Berhad (MARC), RAM Rating Services Berhad (RAM)
Philippines	2	Credit Information Bureau, Inc., Philippine Rating Services, Corp. (PhilRatings)
Thailand	1	Thai Rating and Information Services (TRIS)

Source: defaultrisk.com (accessed 15 April 2011)

Financial regulatory and tax systems can be considered as part of market infrastructure. Many market imperfections in Asian markets are self-induced. For example, withholding taxes and legal constraints combine to segment markets from global capital (Jiang and McCauley 2004) and appear to be a major deterrent to investors. Reluctance by some currency authorities to permit overseas transactions in their currency is another barrier. Of course, financial deregulation entails risks, and needs to be implemented judiciously. A recent ADB study (ADB 2010) surveyed institutional investors regarding their perceptions of barriers to bond market access in Asian economies. The results are summarized in Table 9.

Table 9: Distribution of Perceived Bond-Market-Related Barriers by Country

Number of survey respondents reporting problems

Problem	PRC	HKG	IND	INO	MAL	PHI	SIN	THA	VIE	Total
Lack of derivative instruments										0
Lack of repo operations	1			1	1	1		4		8
Lack of securities lending								2		2
Settlement of FX trades				3	1					4
Local currency borrowing	1		1	2	3	2		2	1	12
FX cash repatriation restrictions	1		1	6	2	3		8	3	24
FX exchange restrictons	2		1	8	4	5		10	4	34
Income payments				1						1
Legal jurisdiction	1			1						2
Taxes	2			6		5		2	2	17
Investor registration	5		3	1		1		1	4	15
Legal system differences	1			1						2
Direct access to local settlement	2			1		1			1	5

Note: HKG = Hong Kong, China: IND = India; INO = Indonesia; MAL = Malaysia; PHI = Philippines; SIN = Singapore; THA = Thailand; and VIE = Viet Nam.

Source: ADB (2010), author estimates.

Withholding taxes and restrictions on FX convertibility and repatriation were among the barriers most frequently mentioned. It is important to note that some of these barriers fall more in the province of the public sector (regulations and taxes), while others fall in the province of the private sector (settlement procedures, etc.). Therefore, efforts to reduce such barriers must be directed to both sectors. Indonesia has the largest number of perceived barriers, followed by Thailand, the PRC, and the Philippines. In contrast, Hong Kong, China; Malaysia; and Singapore have very low numbers of perceived barriers.

Mechanisms to support infrastructure financing, etc.

Asia's infrastructure investment needs are massive—estimated by ADB/ADBI at US$8 trillion between 2010 and 2010 (ADB/ADBI 2009). However, some economies in the region face significant fiscal constraints that would not allow them to provide sufficient finance for such projects. Fiscal constraints can be relaxed in several ways: increases in overseas development assistance (ODA); public funding from regional institutions; and introduction of private capital, e.g., via public-private partnerships (PPP). Since large increases in ODA probably cannot be expected over current levels, the burden will have to fall on regional public funding and PPPs. Regional public funding is discussed below in Section 6.3.

The core task of structuring a PPP project is to reconcile the interests of various parties from the private and public sectors. These parties include investors, lenders, and contractors on the private sector side and the government and other entities on the public sector side. One of the potential benefits of PPPs is encouraging the public sector to identify project risks and consider risk transfer in a way that helps to avoid substantial cost overruns. On the other hand, private-sector investors and lenders involved in a PPP project have capital at risk, and therefore a greater financial incentive to ensure that the service is provided as required in the contract. Moreover, lenders may provide benefits through independent due diligence and control of the project, because they want to ensure that the project is viable, and that all obligations in a contract can be safely fulfilled.

PPPs, while sounding promising, are complex and costly. (See Nishizawa [2011] for a good discussion.) Risk allocations are challenging because of the public nature of infrastructure services provision and inherent uncertainties over the long term. There is a perception of PPPs

being in favor of "private profit at the public's expense" . Difficulties also arise from the different attitudes of investors, the government and lenders, as well as the general public. PPPs are equipped with very commercial and contractual structures and operational modalities, but at the same time are extremely political, especially in the implementation stage.

Strengthen government debt management

Governments need to improve their debt management to support the liquidity of their bond markets. Risk-free benchmarks are an integral and necessary requirement for pricing and hedging in the corporate bond market. Ultimately, the risk-free government bond provides the benchmark for credit spreads. Thus, it is critical to recognize that adequate liquidity must be maintained across a range of maturities, irrespective of fiscal requirements (Batten, Hogan, and Szilagyi 2009).

Improving efficiency: payments, settlement and clearing systems

Financial systems—either banking or securities markets—cannot function without efficient systems for payments, settlement and clearing, as these form the essential "plumbing" of the system. These systems generally held up well in Asia during the global financial crisis. However, there are many ways that they can be strengthened further. For example, although all major ACI countries except Viet Nam have real-time gross settlement (RTGS) payments systems, they still need to be substantially upgraded to handle smaller transactions and various kinds of risks.

Competition issues by sector

Barriers to entry in various financial sectors remain high, both within countries and across borders. This leads to higher costs and inefficiencies. In view of the key role of the financial sector in allocating savings and investment, this represents a significant constraint on growth prospects in Asia.

Banking: Competition in many banking sectors remains limited by regulations that restrict entry of foreign financial institutions into domestic markets. This is evidenced by the low level of entry of regional banks in each other's home markets. Table 10 shows the penetration of foreign banks into a number of ACI markets. It shows that the number of ACI-owned foreign banks is particularly low in the PRC, Malaysia, the Philippines, and Thailand. This needs to be addressed as part of the general financial integration measures discussed below.

Table 10: Entry of Foreign Banks in ACI Markets (number of banks)

Country	Total Banks in Study	Locally Owned	Foreign Owned	Non-Asian Foreign Owned	Asian Foreign Owned	Non-ACI Owned	ACI Owned
ASEAN	**335**	**94**	**241**	**121**	**120**	**52**	**68**
Indonesia	36	10	26	7	19	6	13
Malaysia	23	9	14	8	6	1	5
Philippines	38	19	19	10	9	4	5
Singapore	119	6	113	69	44	18	26
Thailand	32	12	20	9	11	4	7
Viet Nam	87	38	49	18	31	19	12
PRC	**38**	**37**	**1**	**1**	**0**	**0**	**0**
India	**75**	**48**	**27**	**14**	**13**	**8**	**5**
ACI	**448**	**179**	**269**	**136**	**133**	**60**	**73**

*Excluding thrifts.

Source: Bankscope database, available at: www.bankscope.com (accessed 25 May 2011)

In some cases, barriers among subcategories of banks can also contribute to inefficiencies. For example, the status of state-owned banks in countries such as the PRC and India, which enjoy implicit or explicit government guarantees, can make financing conditions of private banks more difficult. Since state-owned banks tend to lend disproportionately to priority sectors targeted by the government, this can starve the rest of the economy of adequate funds.

Insurance: The situation of insurance companies in ACI economies is similar to that of banking, i.e., industry entry, especially by foreign insurance companies, is limited, leading to economic inefficiency and high costs.

Asset management: With the exceptions of Hong Kong, China; the PRC; Malaysia; and Singapore, the development of the private asset management sector in ACI economies is still limited. In view of the rapid ageing of populations in many ACI countries over the next two decades, demand for asset management services is expected to expand rapidly. Cross-border competition for such services is even scarcer, due to existing restrictions on capital flows.

3.3 Relation to government development policy

Most ACI governments have taken an active approach to economic development policy. In view of the key role of the financial sector in allocating resources for investment, this took various forms, including direct guidance of bank lending to preferred sectors (often with implicit guarantees of such lending), financial repression in order to lower costs of funding for preferred sectors, and limits on cross-border capital flows. Since the general tendency of financial development has been to increase the autonomous functioning of markets to raise the efficiency of resource allocation, this inevitably raises tensions with the aim of the government to influence resource allocation. This raises the question of how to minimize these potential conflicts between market functioning and government economic development policy, or, alternatively, how to identify ways to achieve a given set of development policies with a maximum degree of allocative efficiency.

There are no easy solutions to this dilemma. The most obvious approach is to eliminate factor market distortions to the extent possible, including price subsidies and barriers to entry. Such an approach will tend to reduce the collateral economic damage associated with economic development policies. This suggests that targeted sectors should be promoted via subsidies for entry to specific industries or activities, but that entry itself should not be restricted. However, this is a subject beyond the aims of this paper.

4. EXPANDING FINANCIAL INCLUSION

4.1 Increasing access

Access to financial services remains limited for micro-, small, and medium-sized enterprises (MSMEs) and households in many ACI economies. This limits the contribution that these sectors can make to growth and may have other undesirable side-effects, such as unnecessarily high levels of savings, higher income inequality, and volatility of consumption and investment. Expanding access to financial services is thus an important aspect securing more equitable and sustainable growth.

Consumer Finance

Consumer finance is still relatively undeveloped in most ACI economies. Use of credit cards is expanding rapidly, but in some cases from a small base. Access to credit for purchase of durables such as automobiles and electrical appliances remains limited. Development of consumer data bases can support the expansion of this sector.

Small and medium-sized enterprise finance

Small and medium-sized enterprises (SMEs) have been rather neglected because Asian banks have focused more on consumer lending, which is less complicated than the SME business. Policy measures should be directed at creating an enabling environment for SMEs, by (i) developing a corporate credit information database and credit guarantee system at both the national and regional levels; and (ii) nurturing entrepreneurship and technological and human resource development. Governments need to conceptualize a broader and longer-term blueprint for financial sector reform, and align current policy measures to this long-term plan. A better balance between enhancing SME lending and ensuring stability (prudential) can be achieved through a holistic approach that strengthens supervision and capabilities.

The rationale for the government's role in facilitating SMEs' access to credit is generally drawn from research showing SMEs' contribution to economic performance and the link between credit flow and economic performance. It is widely believed that SMEs play a crucial role in developing countries, by helping to alleviate poverty and being an important contributor to innovation and sustainable growth. Empirical studies have also shown that credit to the private sector plays a key role in economic growth (Beck, Levine, and Loayza 2000; Khan and Senhadji 2000). This growth may be due to SME performance, as suggested by studies that explore the link between credit flow and SME performance. Utilizing cross-industry and cross-country data, Beck, Levine, and Loayza (2000) found that improvements in financial development (as measured by the ratio of private credit to GDP) help accelerate the growth of SMEs. It is therefore not surprising that many governments have intervened in the financial sector to boost credit flow to SMEs.

While market failures present a compelling rationale for governments to intervene in finance, governments should work with market forces to correct, rather than exacerbate, existing market failures. The most important role of government is not to provide finance, but to strengthen the institutional underpinnings of financial transactions (ADB 2009). This requires improvements in legal, regulatory, and information infrastructure that underpins the efficient operation of financial systems.

For example, governments should consider reforming their subsidy programs to differentiate between the financing needs of SMEs due to structural market failure and the normal economic cycle. Loan guarantees also need to be reconsidered, and designed in a way that minimizes moral hazard and avoids market distortions. A clear exit strategy would also be needed to allow authorities to withdraw their support systematically.

Other measures to improve SME financing include building banks' capacity in transaction technologies, and encouraging innovation so that banks can identify technologies that have a comparative advantage in SME environments. The entry of foreign-owned banks could be encouraged, as they are more able to effectively use transaction technologies suited to SMEs.

Trade finance, both for domestic and international trade, is very important for SMEs, but they still tend to face obstacles in financing because of lack of data, collateral, etc. To the extent that policies can ease these obstacles, this could make an important contribution to economic growth potential by expanding the number of firms able to export and import. They key is to find innovative ways to cut transaction costs.

Micro Finance

Micro-finance—the extension of small amounts of credit to a large number of poor households and enterprises—has been growing rapidly in a number of countries, although most recently the sector has suffered growing pains in India and some other countries. Controversy has focused on issues such as whether or not rates charged are usurious and whether overly aggressive lending led to increased bankruptcies and, in some cases, suicides. On the other hand, micro-finance has in many cases been a leader in technological innovation, including use of cellphones for bank transactions.

In most cases, the regulatory frameworks for micro-finance are not well developed, including consumer protection and bankruptcy laws, and these need to be addressed. Creation and/or improvement of consumer credit databases can also contribute to the healthy development of this sector.

Green finance

Financing for green growth encompasses a variety of areas, including traditional pollution control, investments in alternative energy sources, investments in energy conservation, and investments in projects that reduce greenhouse gas emissions. These can be considered as contributing to inclusive finance in the sense that, due to various externalities, traditional financing mechanisms do not provide sufficient incentives to lead to socially efficient levels of investment in these areas.

The control of greenhouse gases is particularly complex because the relevant "commons" area is the entire planet. Use of institutions such as the Clean Development Mechanism (CDM) has been an important development in this area to find cost-effective solutions to greenhouse gas reductions. This framework allows advanced economies to finance lower-cost greenhouse gas reduction projects in developing economies, and thereby gain emission credits, but the process still has many limitations. Although these are best addressed in global fora, there may be scope for regional agreements for cost-sharing as well. Water pollution and water management are often regional issues, as in the case of the Mekong Delta, so international financial transfer mechanisms may prove useful in this area as well.

4.2 Strengthening credit and other databases

As mentioned above, policies to expand SME finance should aim to increase the availability of credit information rather than simply providing subsidies. This can help to ease the problems of identifying suitable collateral for lending to SMEs. Consistent and accessible SME financial databases should be established.

4.3 Legal and regulatory infrastructure

The development of specialized lending institutions for consumers and SMEs may require regulatory innovations to cover these institutions and minimize potential financial systemic risk. In the case of consumer finance, strengthening of consumer protection laws may be required as well, such as improvements in disclosure and prevention of collection abuses.

5. ENHANCING FINANCIAL STABILITY

The Asian financial crisis of 1997–1998 and the global financial crisis of 2007–2009 underlined the high costs of financial crises in terms of lost output and financial disruption, and highlighted

the importance of improving institutions to prevent crises and manage them if they do arise. Such an institutional framework provides a key support for sustainable growth. Asian financial systems generally performed well during the global financial crisis, partly because they avoided large exposures to sophisticated but ultimately toxic financial products. Nevertheless, there are still lessons to be learned. At the traditional microprudential level of supervision, the emphasis should be on improving regulatory capacity and closing regulatory gaps. The crisis also showed the need to identify and manage systemic risks not necessarily observable at the level of the individual financial institution, i.e., to implement macroprudential supervision and regulation. Again, Asian regulators have in many cases been ahead of the game in this area relative to advanced economies, but important further steps can be taken in this area as well.

5.1 Microprudential policy

The primary concerns regarding microprudential regulation following the global financial crisis have been: (1) banks should hold more capital, as previous buffers have proved inadequate to allow banks to recover; (2) banks should also have liquidity buffers so that they can withstand the drying up of money markets for a significant period; and (3) banks should not become too leveraged in order to lessen the need for drastic asset sales when prices are artificially depressed in a crisis. These have all been reflected in the new Basel 3 recommendations (Basel Committee on Banking Supervision 2010). Clearly, central banks will always be there as lenders of last resort to ensure that confidence is maintained in the system as a whole in the event of market problems, but the rationale for buffers is to reduce the fragility of the system and buy time for solutions to be worked out in the event of difficulty.

The previous Basel rules encouraged banks to shift problems off their balance sheets, but in practice there was still exposure to risk, especially to their reputations if their off-balance-sheet vehicles failed, and, hence, one can expect that authorities will be keen to make sure that this misleading shifting does not occur in the future. It is important to ensure that the development of shadow banking does not obscure overall supervision and regulation of individual institutions.

Development of regulatory capacity remains an important issue for many Asian economies, as regulators struggle to keep up with increasingly liberalized and sophisticated financial sectors. This applies both to banks and other financial institutions.

5.2 Macroprudential policy

Macroprudential policy aims to reduce financial systemic risk. For emerging economies, such risk tends to emanate from three areas: procyclicality, i.e., the tendency for optimism and risk-taking to build up cumulatively during an expansion and unwind during a downturn; interconnectedness of markets and institutions; and external shocks that typically result in capital flow reversals. Two major areas need to be addressed. The first is to strengthen the financial system so that it can withstand major shocks, both by eliminating having institutions whose failure could disrupt the system, and by compelling institutions to put in place plans for handling the failure of core service suppliers in a manner that does not disrupt the system. The second is to make available discretionary tools that can be used to supplement the automatic countercyclical stabilizers mentioned above and standard monetary policy tools to both limit the buildup of systemic risk and to reduce the potential for financial sector losses resulting from crises. Such tools can take the form of loan-to-value ratios for lending or reserve requirements (Kawai 2011).

The institutional framework for macroprudential management is very important. Adams (2010) and Kawai (2011) advocate the establishment of a systemic risk council or systemic stability

regulator. Such a council would be of a very high level and would not only be responsible for monitoring and coordinating, but also for ensuring that both preemptive and corrective macroprudential measures are undertaken by the responsible agencies. While such a council could be driven by one of the main agencies, such as the central bank, there are advantages in it being independent so that conflicts of interest are reduced. Cho (2010) makes a similar proposal, and identifies one of the main tasks of a crisis management team as being "triage"—there needs to be a common diagnosis and an agreed response, especially regarding communication, across all agencies. One advantage of having such a council, rather than simply assigning responsibility to the central bank, is that it leaves the central bank free to continue to run an independent monetary policy.

Ways of reducing procyclicality

Capital adequacy regulations, particularly under Basel 2, can contribute considerably to increasing the amplitude of the financial and economic cycle. In rising markets, capital values increase and little effort is required to meet capital requirements that are constant through the cycle. However, in downturns, not only do losses mean that new capital is required, but capital values themselves fall and the cost of raising capital increases. This means that banks may have to contract lending in order to preserve adequate capital, thereby adding to the difficulties for the real economy at a time when it is already under pressure. In addition, under Basel 2, credit ratings, whether internally or externally generated, played an enhanced role in determining capital requirements. However, ratings also tend to follow a cyclical path, in part because the track record of the rated institution plays an important part in the determination of its rating. Taken together, these factors can amplify the cycle. This was clearly an unintended consequence of Basel 2, yet one that had been pointed out for some time before it came into effect (Peura and Jokivuolle 2003).

There are also more basic reasons why the financial system tends to exacerbate cycles in the real economy. "Good times" are likely to lead to a more relaxed attitude to risk (as memories fade the longer it has been since people were exposed to a downturn), while herd behavior exacerbates swings and encourages overlending. Bonus systems may encourage risk taking in the up phase as people make provision for the possibility that they will lose their jobs in the contraction.

Monetary policy already tends to lean against the economic cycle. The simplest response is to introduce a countercyclical element into the determination of capital ratios, raising them when growth picks up and allowing them to diminish as growth eases. Given that this involves increasing capital when it is cheap but not having to do so when it is scarce, this conveys an immediate benefit. Such changes can probably be made without the need for new legislation in many countries. Basel 3 includes provisions for such buffers, but they do not have an explicit form for general implementation at present. Fernández de Lis and Garcia-Herrero (2010) describe a different approach, currently employed in Spain and more recently introduced in Peru and Colombia, whereby provisioning for bad loans is procyclical. In Spain, whenever lending increases more rapidly than normal, provisioning needs to increase more than proportionately on the grounds that rapid increases are likely to be accompanied by a decrease in the quality of lending. In a downturn, such provisions can then be used as defaults increase, without the need to increase capital in such difficult times. Thus, the provisions reflect the behavior of the individual banks. In Peru, the process is related to cyclical fluctuations in GDP and, therefore, constitutes a part of macroprudential stability.

Asian countries have made some use of similar countercyclical provisions in the past. Hong Kong, China, for example, has used loan-to-value ratios that become more cautious the faster the asset price underpinning the loan increases. Andritzky et al. (2009) suggest a wide range of

countercyclical measures that could be applied, in particular taking into account the asymmetric problems of liquidity that occur when the economy turns down and doubts about loan quality lead to a withdrawal from markets and the freezing out of marginal participants. Such liquidity issues can most readily be addressed simply by ensuring a substantial liquidity cushion and matching funding sources to cash flow needs. This approach has already been introduced in New Zealand (Reserve Bank of New Zealand 2009). More realistic stress tests that take account of the freezing of markets will help in determining the necessary level of preparedness. Leverage ratios will also tend to limit procyclicality.

A further concern relates to accounting methods. The use of fair value accounting can be highly procyclical if values are derived from impaired markets when the economy turns down. Not only does there tend to be overvaluation in the more euphoric phase, but also artificially low valuation in the downturn. It would be highly retrograde to return to the use of historical values or other systems that ignore market realities, and valuation methods that operate through the cycle (e.g., those using models) make far more sense. However, accounting rules themselves tend to make it more difficult to introduce provisioning in excess of what is known based on historical values (incurred losses) (Fernández de Lis and Garcia-Herrero 2010).

Regulation of systemically important financial institutions (SIFIs)

The global financial crisis showed that the collapse of systemically important financial institutions can have major ripple effects throughout the entire financial system, both as a result of their size and their interconnectedness via their transactions with other firms. Moreover, the inability to resolve such institutions required very costly bail-outs, which exacerbated the moral hazard issue resulting from such institutions being perceived as "too-big-too-fail." The Basel 3 reform process has taken a multi-pronged approach to this issue, including: higher capital requirements; suggestions for bail-ins via debt that is convertible to equity; a "capital charge" assessed on assets; and the establishment of credible resolution schemes for SIFIs, including global SIFIs (GSIFIs) (Basel Committee on Banking Supervision 2010).

Regulation of innovative financial products and specific investor groups

The Asian region has not rushed to adopt the sorts of derivative instruments, such as CDOs and credit default swaps, that caused such difficulties in the US when there was doubt about the value of the underlying loans (Fujii 2010). There are, therefore, few immediate concerns over how they should be handled as the later stages of the crisis unfold (Morgan 2009). However, many of these instruments are valuable means of hedging and spreading risk, and their adoption in the region, once the present crisis is over, will help in the deepening of markets and the management of risk. Therefore, the need for such products and the implications for their regulation, along with other potentially destabilizing market actions that help to hedge and spread risks, needs to be considered.

For example, mortgage-backed securities have formed a stable source of housing finance in Australia for nearly thirty years. Loan portfolios are all of a high quality and have not strayed into the subprime area or moved off balance sheet. Other countries that have stayed with the less exotic and more transparent asset-backed securities have also enjoyed stable markets. In reaction to the crisis, there has been a rethink to ensure that, in future, the aspects of securitization that have led to instability are offset. In the first place, the concern is that all of those involved should retain proportionate exposure until the principal underlying the security has been paid back. In the past, many of those involved have collected their fees up front and have had no exposure to any subsequent deterioration in quality. Thus, agents, originators and rating agencies, for example, should receive their remuneration according to the performance of their portfolios (Joint Shadow Financial Regulatory Committees 2009). This will help all parties to ensure the quality of the assets. In 2009 the US proposed that originators and sponsors be

required to retain an economic interest in a "material" portion of the credit risk of securitized credit exposures' and that 'compensation of market participants' should be aligned 'with longer term performance of underlying loans' (US Treasury 2009: 13). This would go a long way to achieving the required outcome, especially in combination with the standardization of many products. Asian countries could, for example, agree on common features for mortgage-backed securities (Fujii 2010).

The anomalous treatment of asset-backed securities under the Basel regime and associated accounting procedures that encouraged banks to move such assets off their balance sheets should be ended. While some agents were able to collect their remuneration up front, many banks discovered that reputation risk meant that they were exposed to losses in the special investment vehicles they had set up to take mortgage-backed securities off their balance sheets. A concentration by financial markets on standardized products would make these products more transparent and easier to price. Indeed, they could become more readily traded on exchanges and gain stability from the existence of central counterparties. Hence, if these straightforward measures are taken, mortgage-backed securities could be developed to advantage across the region, assisting in the financing of standardized loans and reducing borrowers' dependence on banks without introducing any unwelcome instability into financial markets.

Authorities around the world have had concerns about the potentially destabilizing effects of the speculative activities of investor groups such as hedge funds. Their concerns have stemmed from two issues: first, that such organizations are largely unregulated and little is known about them, and second, that they might present significant risks to financial stability. However, as the crisis has developed, it has become clear that hedge funds have presented few systemic problems and, indeed, insofar as they have been holding some of the impaired assets that have shown major losses, they have in fact had a stabilizing influence as they have been able to absorb their losses and have not proven to be a source of contagion to the market as a whole. Private equity funds have also been lumped together with hedge funds in this debate, but their activities have little or nothing to do with factors that led to the global financial crisis.

Credit rating agencies have seen their reputations become severely diminished during the crisis. Confidence could be increased by greater transparency, but also by the income of rating agencies being linked to the performance of the assets they rate. The main rating agencies have been somewhat less active in Asia than might have been expected from the level of financial development in Asian countries, and regional rating agencies have only been emerging slowly. While this may have resulted in Asia having been less caught up in the misrating of securities that has been demonstrated in the present crisis, it also means that Asian financial assets have been more difficult to value. Hence, moving forward, Asian countries will want to see rating agencies develop, albeit within a new framework of confidence and without the conflicts of interest that have arisen from agencies acting both as advisers and raters (Plummer 2010).

Management of capital flows

The inflow of capital played an important role in the continuing development of the Asian region. However, open economies are vulnerable to sudden stops and reversals, and need to be able to cope with rapid fluctuations in such flows. Such fluctuations can be reflected in prices as well as in quantities in an open environment, putting pressure on competitiveness in an upturn and leading to rapid depreciations and credit squeezes when the flows reverse. For example, in the Asian financial crisis of 1997–1998, there was a double mismatch problem in that not only was the currency mismatched, but the inflow of funds was mainly short term, despite the fact that it

was financing longer-term projects Therefore, the advantages of access to foreign capital must be balanced with the greater potential financial instability inherent in such access.

Many Asian countries have sought to find a middle way through this problem (Mohan and Kapur 2010) by not abandoning all capital controls, sterilizing much of the capital inflow to avoid it generating inflation, adjusting monetary and fiscal policy where feasible, and managing their exchange rates so that fluctuations are limited. To some extent, these responses are the consequence of trying to ensure competitiveness and rapid export growth. However, the range of possible responses is heavily affected by the degree of openness of each country. India, which is not particularly open, has been able to manage pressures rather more extensively, using reserve requirements, for example.

There is a question of the optimal sequencing of liberalization such that as much of the benefits from deeper capital markets as possible can be obtained without the downside of unwelcome fluctuation in competitiveness in industries with narrow margins. In general, foreign direct investment is relatively stable and can be liberalized relatively early while loan flows tend to be very volatile and should be liberalized last, with portfolio flows in between. In many cases, the main competitors to Asian countries are other countries in the region, so the concern is to see only limited fluctuations in foreign exchange cross rates.

A number of Asian and other emerging economies have introduced measures to discourage short-term capital flows in an attempt to increase stability without harming the prospects for future longer-term investment flows. For countries that have substantially liberalized the capital account, market-based controls—such as the Chilean unremunerated reserve requirement (URR) imposed on capital inflows—have been the predominant option in recent years. Brazil imposed a tax on fixed-income and equity inflows in October 2009 in response to surges in capital inflows and, in the following month, imposed another tax on certain trades to prevent circumvention. However, designing and implementing capital inflow controls is not an easy task. Administering capital controls requires highly competent country regulatory authorities as they must constantly look out for unwanted flows—often disguised—entering through other channels. For these economies, returning to the days of draconian capital controls or recreating a system of extensive administrative controls is no longer a viable option. Table 11 shows some recent capital control measures adopted in Asia.

Table 11: Recent Capital Control Measures in Emerging Asia

PRC: Closed capital account
2002: QFII introduced
2006: QDII limits introduced
Indonesia
2010: One-month holding period on SBIs (central bank notes)
Korea
2010: Limits on FX derivative contracts on domestic banks (50% of capital) and foreign banks (250%)
Taipei,China
2009: Prohibited use of time deposits by foreign funds
2010: One-week deadline for money to be invested or repatriated
Thailand
2006: Unremunerated reserve requirements (30%) on loans, bonds, mutual funds, swaps and non-resident Baht accounts.
2010: 15% withholding tax on capital gains and interest income on foreign bonds

Source: Central bank reports and news reports.

Evidence on the effectiveness of capital inflow controls is mixed (Kawai and Takagi 2008). Country experiences suggest that the best market-based controls can be expected to lengthen the maturity of inflows; but they can have little impact on the overall volume. The effectiveness of capital control measures tends to weaken over time as agents in the markets find ways to circumvent them. At the same time, capital controls can produce adverse effects: they tend to increase domestic financing costs, reduce market discipline, lead to inefficient allocations of financial capital, distort decision-making at the firm level, and can be difficult and costly to enforce.

Countries with significant capital controls can ease restrictions on capital outflows in a limited manner to reduce net capital inflows. Easing restrictions on capital outflows can mitigate the upward pressure on exchange rates. This policy has been pursued by a number of East Asian economies, like Japan; Korea; and Taipei,China during earlier periods of large balance of payments surpluses. It has been adopted by the PRC and India in recent years. It must be kept in mind, however, that a more liberal capital outflow policy could invite more capital inflows.

A recent note by the IMF (IMF 2011) takes a cautious approach toward capital controls. It essentially sees them as a last resort once other policy measures such as tightening fiscal policy, easing monetary policy, and eliminating currency under-valuation have already been implemented. This partly reflects the findings of Schadler (2008), among others, that fiscal policy tightening can help to offset the inflationary consequences of large-scale capital inflows. However, in light of the volatility and disruptiveness of capital inflows during recent crises, doubts remain about whether it makes sense to assume they are permanent and accommodate them by other macroeconomic policy adjustments. Instead, a more pro-active and mixed approach is probably prudent.

Relation to monetary policy framework

Conventional wisdom on monetary policy in recent years concluded that central banks should focus on keeping inflation low and stable, leading to the widespread adoption of inflation-targeting regimes by central banks. Even many central banks that did not explicitly adopt such targets behaved as if they had done so in practice. However, the experience of the global financial crisis suggests that this led to an inadequate consideration of financial instability risks. In particular, the much-hailed Great Moderation of inflation rates in many economies masked

the buildup of financial risk. In particular, backward-looking analyses of risk during this benign period led to overconfidence about the risks of leveraging and dependence on wholesale finance. Therefore, a number of commentators have suggested that central banks should include financial stability in their mandate in addition to price stability. Genberg and Filardo (2010) note that there are many problems with such an approach. Certainly a mechanistic approach of targeting financial market levels is not feasible or appropriate. Nonetheless, it is clear that financial instability is not consistent with price stability in the longer-term, so central banks must increase their monitoring of such risks.

6. DEEPENING FINANCIAL INTEGRATION

6.1 Role of financial integration and cooperation

Deepening financial integration is seen as a key way to support the process of economic growth and development. To be sure, some countries pursued achieved high growth rates financed mainly by domestic savings, notably Japan, while financial openness increases risks of instability associated with volatile capital flows and empirical support for the benefits of financial integration is still modest. Nonetheless, access to global capital markets is seen generally as worth the risks, given that sufficient institutional safeguards are in place. Countries with shallower and less mature financial systems are less prepared for such openness, and need to take a staged approach, opening up foreign direct investment first, and only afterward graduating to portfolio and loan flows.

Beyond general integration with global financial markets, there are further benefits from regional financial integration steps. ADB's Asia 2050 study (ADB 2011b) identifies financial integration and stability as key areas for cooperation along with trade and transport policy, macroeconomic coordination, and access to natural resources. First, the small size of some Asian markets discourages foreign investment. Studies such as ADB (2010) have shown that transactions costs are closely related to market size and liquidity, and high costs and small transactions costs can deter investors. Second, Asia's large pool of savings could better be mobilized to finance its high needs for investment in infrastructure and other areas. Third, cooperation in the area of financial stability can reduce systemic risks in more efficient ways. Europe provides the main model for the benefits of financial integration, although recent experience shows the risks entailed by closer integration as well.

6.2 Current state of regional financial integration

It is generally acknowledged that financial integration in Asia is still low, especially compared with trade integration (e.g., ADB 2011b). It is more difficult to analyze regional financial integration as opposed to general financial openness (globalization), which was discussed in section 3.1 above. Some results seem the opposite of what one might expect. Lee (2008) examined the levels of portfolio holdings of Asian countries to determine whether there was a tendency for Asian countries to hold each other's financial assets disproportionately. Using data from the IMF's Coordinated Portfolio Investment Survey (CPIS) 2003, he estimated a gravity model of portfolio investment that included regional dummy variables.[4] He found that, after

[4] Gravity models assume that the main drivers of flows between countries relate to their economic size and proximity. If, after taking these and any other unusual features such as a common language into account, a pair shows a larger than expected flow, some abnormal level of integration is presumed.

controlling for the effect of regional trade integration, intra-Asian holdings were lower than the average of what was predicted by the model, and even lower if Hong Kong, China; and Singapore, which are regional financial centers, were excluded. Lane (2011) found that increases in bilateral trade were associated with increases in portfolio holdings of equities, but not long-term bonds. A significant regional effect was also found in the level of portfolio holdings of the ASEAN+3 group.

Nonetheless, Asian cross-holdings of financial assets have been rising over time—an indication of increased financial integration, albeit from a relatively low base. Table 12 shows the shares of cross-border holdings of total international portfolio assets and liabilities in major world regions. In 2006, the share of financial assets (liabilities) held intra-regionally by the 16 Integrating Asia (IA) economies[5] was only 9.6% (11.1%). Excluding Japan, this share was much higher at 25.3% (16.8%), although this is very much affected by high ratios for Hong Kong, China; and Singapore. Although these ratios are not particularly high, especially when Japan is included, they have increased significantly since 2001. The share of intra-regional assets (liabilities) within IA was only 5.6% (10.1%) in 2001, or 15.0% (13.7%) when Japan is excluded. Although IA is far from matching financial integration in the European Union (EU), [6] the intraregional shares of international financial assets in IA are higher than those in Latin America, and comparable to those in the North American Free Trade Agreement.

Table 12: Intra-Regional Portfolio Investment

	Assets		Liabilities	
Share of total portfolio investment, %	**2001**	**2006**	**2001**	**2006**
Integrating Asia (IA)-16	5.6	9.6	10.1	11.1
IA-15 (IA-16 less Japan)	15	25.3	13.7	16.8
ASEAN	11	10.4	11.8	9.4
ASEAN+3	3.1	3.7	5.9	4.3
East Asian Summit	5.7	7.2	9.1	6.9
EU-15	60	61.7	57.1	62.3
MERCOSUR	5.6	4.5	1	1.4
NAFTA	16.2	13.9	11.8	12.8

ASEAN= Association of Southeast Asian Nations

Notes:

ASEAN+3= 10 ASEAN member countries plus People's Republic of China, Japan and Korea

EU= European Union

MERCOSUR= Mercado Com?n del Sur (Southern Common Market)

NAFTA= North American Free Trade Agreement

Source: Capannelli, Lee, and Petri (2009)

Another approach is to estimate the extent to which regional savings can explain investment in individual countries, which would point to a mechanism for recycling regional savings and smoothing investment and consumption. Using the framework pioneered by Feldstein and Horioka (1980), Kim, Kim, and Park (2011) found evidence that regional savings was significant in explaining investment in the region, although most of this effect was attributable to Japan rather than ACI countries.

[5] The 16 Integrating Asia economies are Brunei Darussalam; Cambodia; PRC; Hong Kong, China; India; Indonesia; Japan; Korea; Lao People's Democratic Republic; Malaysia; Myanmar; Philippines; Singapore; Taipei,China; Thailand; and Viet Nam.

[6] The ratio for intra-EU assets (liabilities) holdings was 61.7% (62.3%) in 2006.

A number of studies have also found increased correlations of stock market indices and interest rate movements across the region, including Bae (2011), Hinojales and Park (2011) and Park and Lee (2011). Bae (2011) found that the average global integration of stock markets for all Asian sample economies was 23%; the average regional integration was 34%, reflecting the combined effects of global and regional factors; but purely regional integration (excluding global factors) was only 15%, and did not show a rising trend over time. Therefore, globalization rather than regionalization still seems to be the main factor explaining more synchronized stock market performance. Consistent with other measures of financial openness, Singapore and Hong Kong, China had the highest measures of purely regional integration, while the PRC, Thailand, and India had the lowest measures. Hinojales and Park (2011) also found greater evidence of global integration than regional integration among emerging East Asian equity markets. On the other hand, Park and Lee (2011) found that East Asian local currency bond markets tend to be segmented, being neither regionally nor globally integrated.

6.3 Measures to deepen integration

Measures to deepen financial integration have made the most progress within ASEAN, mainly as part of the ASEAN Economic Community (AEC) project. Key issues for the PRC and India include further opening of their capital accounts and convertibility of their currencies.

ASEAN Economic Community Project Timetable

Among the ACI economies, the ASEAN Economic Community (AEC) project provides the template for more extensive regional financial integration. The AEC project is summarized in the AEC blueprint, ratified by ASEAN members in 2007 (ASEAN Secretariat 2007). The ambitious target of the AEC is to achieve the ASEAN Economic Community by 2015 as a region with free movement of goods, services, investment, skilled labor, and “freer” flow of capital. The broad aim of the project is both to enjoy the scale economies of a unified market and to reduce the development gap among its member countries. To be sure, the blueprint recognizes in practice that some countries will progress faster than others, and liberalization will be done on a voluntary basis, which it characterizes as the “ASEAN minus X” formula. Regarding the financial services sector, the blueprint aims for a first round of liberalization by 2015, with other subsectors or modes being liberalized by 2020 (ASEAN Secretariat 2007).

In order to strengthen ASEAN capital market development and integration, the blueprint calls for the following actions:

“i. Achieve greater harmonization in capital market standards in ASEAN in the areas of offering rules for debt securities, disclosure requirements, and distribution rules;

ii. Facilitate mutual recognition arrangement or agreement for the cross recognition of qualification and education and experience of market professionals;

iii. Achieve greater flexibility in language and governing law requirements for securities issuance;

iv. Enhance withholding tax structure, where possible, to promote the broadening of investor base in ASEAN debt issuance; and

v. Facilitate market driven efforts to establish exchange and debt market linkages, including cross-border capital raising activities.” (ASEAN Secretariat 2007:17)

It further notes that the liberalization of capital movements is to be guided by the

following principles:

"a) Ensuring an orderly capital account liberalization consistent with member countries' national agenda and readiness of the economy;

b) Allowing adequate safeguard against potential macroeconomic instability and systemic risk that may arise from the liberalization process, including the right to adopt necessary measures to ensure macroeconomic stability; and

c) Ensuring the benefits of liberalization to be shared by all ASEAN countries." (ASEAN Secretariat 2007:17)

Capital flow liberalization

Liberalization of capital accounts in the PRC and India, together with convertibility of the yuan and the rupee are key developments for promoting regional financial integration. However, as was discussed above, capital accounts in the PRC and India are still relatively closed. For example, Table 13 below shows the current status of capital account openness in the PRC, according to IMF classifications. Foreign direct investment is essentially liberalized, but portfolio, loan, and derivative transactions are still heavily controlled, including quotas on both inward and outward portfolio flows.

Table 13: Summary—The PRC's Current Capital Controls

Market	Investor group	Inflows	Outflows
Money market	Non-residents	No permission	No permission
	Residents	Prior approval by the PBC and SAFE is required	No permission for residents, except authorized entities
Stock market	Non-residents	B shares and QFII	Sell B shares, repatriate QFII
	Residents	Sell H (or N or S) share abroad, repatriate of QDII	QDII
Bonds and other debts	Non-residents	QFII	No permission, except for some international finance entity, repatriate QFII
	Residents	Prior approval by the PBC and the SAFE is required. Bonds issued abroad must be incorporated into the State external debt plan.	No permission for residents, except authorized entities
Derivatives and other instruments	Non-residents	No permission	No permission
	Residents	Operations in such instruments by financial institutions are subject to prior review of qualifications and to limits on open foreign exchange position.	Operations in such instruments by financial institutions are subject to prior review of qualifications and to limits on open foreign exchange position.

Source: IMF (2008).

To be sure, the PRC has undertaken a number of steps to ease restrictions on capital flows as part of its program to internationalize the yuan. Some of these steps are summarized in Table 14 below. These have been aimed primarily at bank deposits, yuan-denominated bond issuance, including by non-residents, and bond funds. So far, the liberalization of offshore use of the yuan in capital account transactions has taken place only in Hong Kong, China as a test case. A key development will be to extend this liberalization to other overseas markets. Another key step will be to end the quotas on inward and outward portfolio flows.

Table 14: Recent PRC Capital Account Liberalization Measures

2004	HK banks can offer RMB deposits
2005	Foreign multilateral banks can issue RMB bonds in PRC ("Panda bond")
2007	Mainland financial institutions can issue RMB bonds in HK ("Dim sum bond")
2008	Mainland financial institutions can issue RMB bonds in HK
2009	Mainland subsidiaries of HK banks can issue RMB bonds in HK
	Mainland sovereign issued RMB bonds in HK
	RMB insurance products allowed in HK
2010	RMB inter-bank market opened to selected offshore RMB holders
	Foreign firms can issue RMB bonds in HK and PRC
	Foreign firms can borrow (loans) in HK
	RMB structured deposits allowed in HK
	RMB bond funds allowed in HK

Source: HSBC (2010), HSBC (2011).

India, on the other hand, has tight controls on FDI but looser controls on portfolio flows. For example, although India has a system for registering qualified foreign institutional investors (FIIs) similar to that of the PRC's QFII system, in India there are no overall quotas on portfolio inflows by such investors. Table 15 summarizes the current status of capital account regulation in India.

Table 15: Summary—India's Current Capital Controls

Market	Investor group	Inflows	Outflows
Foreign direct investment	Non-residents	Can acquire up to 100% stake, subject to various sectoral and other restrictions	Foreign corporates can repatriate benefits after taxes
	Residents		Allowed, with various restrictions
Money market	Non-residents	Deposit limits for NRIs	Time limits and penalties for early withdrawal
	Residents	Banks allowed to lend and borrow freely, under limits.	No permission for individuals; limits on banks
Stock market	Non-residents	FII registration or participatory note (no limits); FIPB and RBI approval needed for large stakes; ownership limits	Repatriate FII
	Residents	Allowed without ceiling; but restrictions on use domestically; ECBs can be converted to equity	No limits for individuals; limits on banks
Bonds and other debts	Non-residents	FII registration or participatory note (no limits); strict limits on size by issuer category	Repatriate FII
	Residents	Allowed within limits (ECB: up to US$500 million per year for corporates, with other restrictions, too); tighter limits on banks; short-term borrowing highly restricted	No limits for individuals; limits on banks
Derivatives and other instruments	Non-residents	FII registration; subject to various limits; currency futures not allowed	Repatriate FII
	Residents	Forward contracts allowed to cover export and import exposures.	Forward contracts allowed to cover export and import exposures.

Source: Authors, based on Kohli and Belaisch (2011).

Harmonization of regulation and taxation

As noted above (see Table 8), investors report issues related to regulation (including foreign exchange regulation) to be among the most pervasive barriers to cross-border investment. Their perception of barriers differs sharply across different national bond markets. Therefore, a move to harmonize tax rules and regulations in the direction of the more liberalized markets could bring substantial benefits in terms of transaction volumes. Of course, a number of the barriers refer more to trade practices rather than taxes or regulations, so those need to be tackled separately. Again, the ASEAN AEC provides a good model to start from. As discussed below, an Asian Financial Stability Dialogue could provide a good forum for standardizing tax rules and financial regulations.

ACU-denominated bond market

For many Asian countries, increases in bond market size as a share of GDP are unlikely to be sufficient to obtain the scale economies necessary to achieve the cost reductions that are adequate to successfully compete with offshore bond markets. Instead, the achievement of adequate scale economies is likely to require cooperation at the regional level. Their best prospect may be some kind of regional currency basket that would mitigate the currency exposure of issuers, although not eliminate it entirely (Spiegel 2010). The Asian Currency Unit (ACU) is one major candidate for such a common basket. This would also have the advantage of popularizing the use of the ACU, which could encourage its use in other kinds of transactions as well. The example of European bond markets is instructive. Hale and Spiegel (2009) found that subsequent to the launch of economic and monetary union in Europe, there was a 35.3% increase in the probability of issuing in euro relative to pre-union national currencies among nonfinancial firms in international bond markets. Even before the adoption of the euro, the development of the European Currency Unit led to a rapid expansion of European Currency Unit-denominated bond issues in Europe. The adoption of an Asian currency unit might result in a similar increase in issuance within the region.

Regional settlement institutions

Cross-border portfolio investment could be encouraged by the development of regional stock and bond exchanges. Cross-listing of stocks should be encouraged as well. International securities transactions, especially those within the region, could also be encouraged by development of a regional settlement institution along the lines of those existing in Europe.

Development of regional financial centers

The further development of regional financial centers can also contribute to regional growth, and should be supported by policy measures. By 2030, in addition to Hong Kong, China; and Singapore, Mumbai and Shanghai are expected to emerge as important regional financial centers. However, this development hinges crucially on the liberalization of international capital flows in India and the PRC, respectively, plus a host of corresponding domestic reforms to strengthen the financial system and harmonize financial regulations and tax rules. Those countries should develop a more transparent timetable for such a transition.

There does not appear to be a universally accepted definition of the term “international financial center” (IFC). Nor is there a unique framework of quantitative measures that would document their activities and relative performance. Some recent studies of the factors governing the development international financial centers, with a focus on Asia, include Cheung and Yeung (2007) and Leung and Unteroberdoerster (2008).

Of course, a country may have large financial markets simply as a result of having a large domestic economy. The distinguishing characteristic of an international financial center is the

importance of international financial activities in overall business, including the presence of international financial institutions, high levels of cross-border flows, wealth management services and, perhaps most importantly, high levels of exports of financial services. Such centers must achieve a high degree of efficiency in order to attract business from other markets. Leung and Unteroberdoerster (2008:11) argue that "…the exports of financial services provide a comprehensive measure of all international financial activities carried out in an economy." They further argue that inward foreign direct investment in the financial sector also provides a measure of the attractiveness of the financial sector in that country, although it does not necessarily distinguish between attractions of the domestic financial market and the role as an international financial center.

In their empirical work, Leung and Unteroberdoester (2008) find that both macroeconomic and microeconomic/institutional factors as well as financial market strength and efficiency are important in the formation of IFCs. In terms of attracting international financial institutions, the fact that both Hong Kong, China; and Singapore have been outperforming the regional economies and many other major economies, including Japan, in this regard, appears to be explained, in part, by their favorable microeconomic/institutional environment. The latter may be described by survey indices of competitiveness, such as those published in Xinhua-Dow Jones (2011), World Economic Forum (WEF) (2011) and Z/Yen Group (2011), which are summarized in Table 16 below.

Table 16: Competitiveness/Development Scores of Major Financial Centers

	GFCI	Xinhua-DJ	WEF*
London	1	2	2
New York	2	1	1
Hong Kong, China	3	4	3
Singapore	4	5	4
Shanghai	=5	6	22
Tokyo	=5	3	9
Chicago	7	11	1
Zurich	8	12	8
Frankfurt	14	8	13
Shenzhen	15	21	22
Seoul	16	24	24
Mumbai	58	34	37

Source: Z/Yen Group (2011), Xinhua-Dow Jones (2011), WEF (2011).

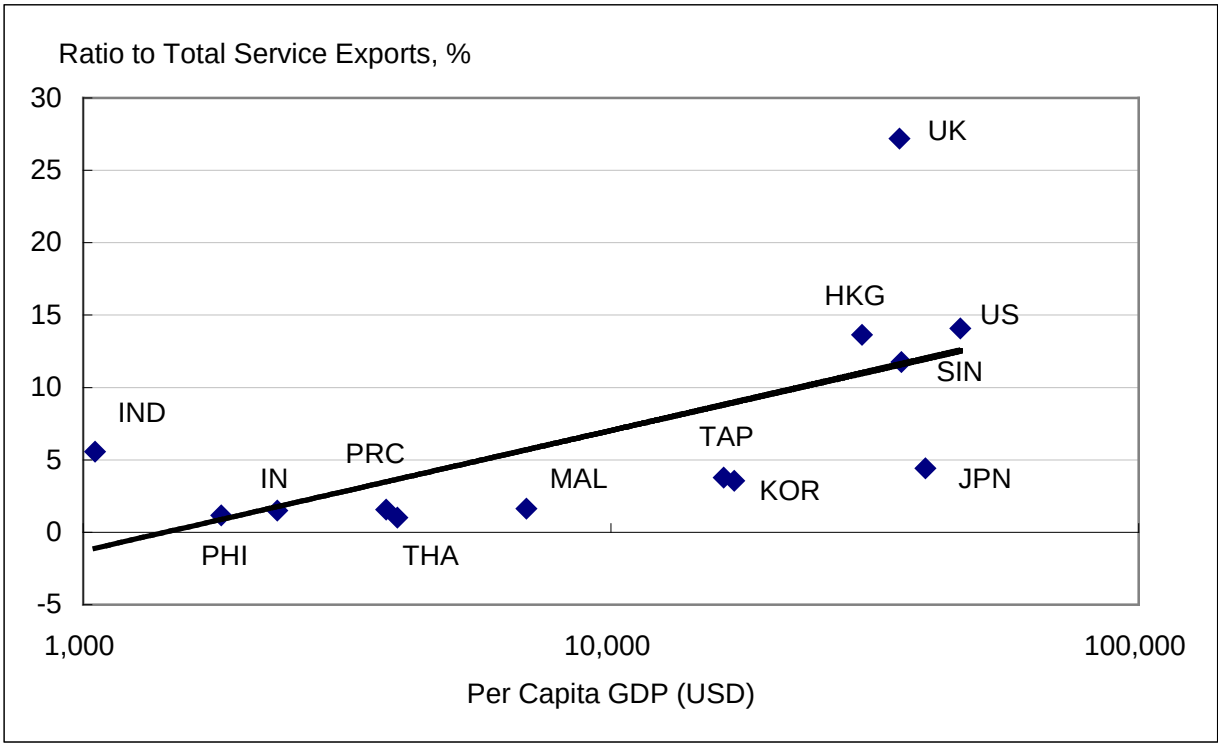
* Ratings for countries rather than cities.

Most of the top rankings are not very surprising or variable: New York, London, Hong Kong, China; and Singapore, followed by Tokyo. However, the rankings of Shanghai are much more variable, quite high in the GFCI and Xinhua-Dow Jones surveys, but much lower in the WEF, reflecting strikingly different assessments of the business and institutional environment. Mumbai generally ranks quite low, although, as described below, this may be somewhat misleading.

As mentioned above, exports of financial services (including insurance) should be a good indicator of development as an international financial center. Usually, one would normalize this measure by using its ratio to GDP. However, this can be misleading because of much different degrees of openness across economies, e.g., Hong Kong, China; and Singapore are very open,

while the US, PRC and India are less so. The ratio of exports of financial services to total service exports may give a better comparison. Figure 1 below shows a scatter plot of this figure versus the level of per capital GDP.

Figure 3: Share of Financial Services in Service Exports and Per Capita GDP, 2009



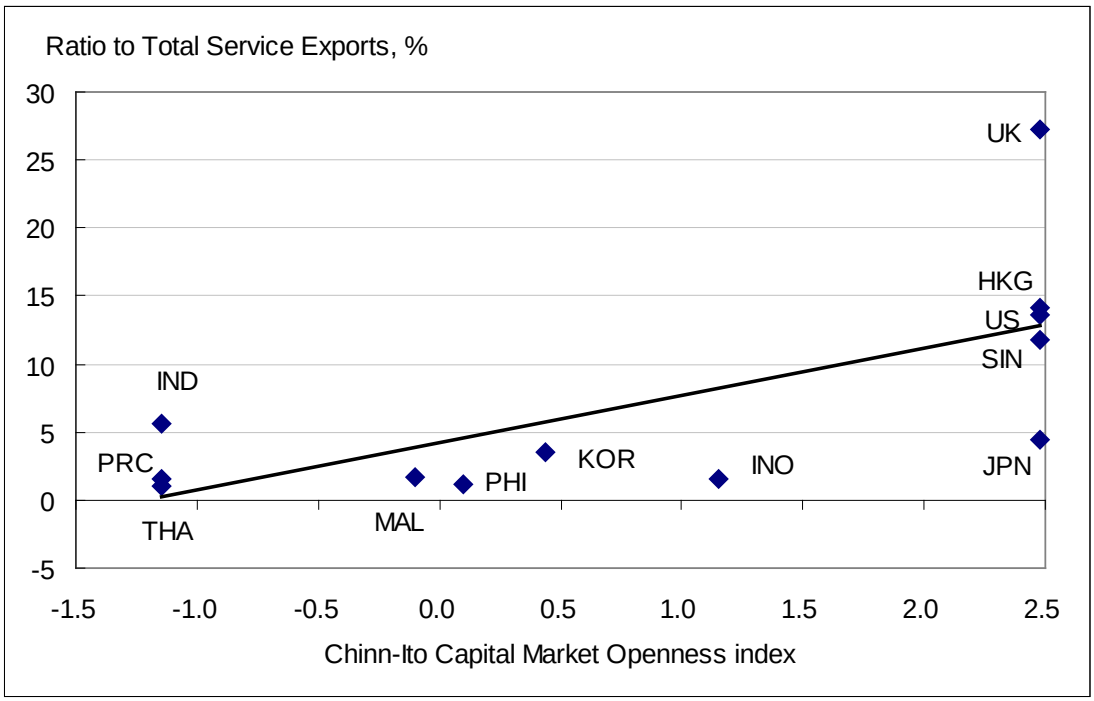
Note: PRC = People's Republic of China; HKG = Hong Kong, China; IND = India; INO = Indonesia; JPN = Japan; KOR = Korea; MAL = Malaysia, PHI = Philippines; SIN = Singapore; THA = Thailand; TAP = Taipei,China; UK = United Kingdom; and US = United States.

Source: CEIC Database Co.

Figure 3 shows that the level of economic development is an important predictor of the level of financial service exports, but there is still substantial variation. The United Kingdom (UK) is a huge outlier, and the levels for Hong Kong, China; the US; and India are above the trend line, while there is a big gap with almost all other Asian economies, including the PRC, which are below the trend line. Other things being equal, the trend line suggests that, if per capital GDP in the PRC triples over the next twenty years to around $12,000, the share of financial services exports would rise to around 7%, still only about half of the current level of Singapore. More rapid progress would require other reforms.

In their regression equations using financial service exports to the US as the dependent variable, Leung and Unteroberdoerster (2008) find that language, measures of economic freedom, and the number of listed foreign companies are significant determinants of such exports. It also seems likely that capital market openness, the legal system and the tax system are important determinants as well. Figure 4 shows that there is a strong correlation between capital market openness and financial service exports, and the major international financial centers all have very high Chinn-Ito scores of 2.48. There is a clear gap between those economies and the other Asian economies.

Figure 4: Share of Financial Services in Total Service Exports and Chinn-Ito Index, 2009



Note: PRC = People's Republic of China; HKG = Hong Kong, China; IND = India; INO = Indonesia; JPN = Japan; KOR = Korea; MAL= Malaysia, PHI = Philippines; SIN = Singapore; THA = Thailand; UK = United Kingdom; and US = United States.

Source: CEIC Database Co. and Aizenman, Chinn and Ito (2008).

As noted above, both India and the PRC score low on the Chinn-Ito index at -1.15. However, the varying composition of capital controls in each country may explain the differing performance in terms of financial service exports. The PRC has essentially no restrictions on foreign direct investment, but tight controls on portfolio and loan investment, including quota limits for foreign institutional investors. India on the other hand has tight controls on FDI but looser controls on portfolio flows. Therefore, the Chinn-Ito index probably underestimates the openness of India with regard to non-FDI capital flows.

The acid test for the development of Shanghai and Mumbai as regional financial centers is full convertibility of the yuan and rupee, respectively, together with substantial liberalization of the capital account to allow largely unfettered capital flows. Along with this, standards of regulation, governance, tax and legal systems will have to be brought up to developed country status. Finally, macroeconomic management and regulation and management of domestic financial sectors will have to be strengthened to a point where they can cope with liberalized capital flows. This lack of financial development is after all the main reason why the PRC and India have been reluctant to open their capital accounts fully, as is emphasized in discussions of the development of Mumbai such as in HPEC (2007). This also suggests that these two countries have a long road to travel to achieve this goal.

6.4 Mobilizing regional savings

Asian Infrastructure Investment Fund

Although some Asian countries have made large investments in improving their infrastructures, others still lag behind. While these investments have improved national facilities, Asian countries will only be well connected when there are good cross-border infrastructures in place as well. As mentioned above, Asia's infrastructure investment needs are massive, and current funding sources are likely to be inadequate. Abidin (2010) proposed an East Asian Infrastructure Investment Fund (EAIIF) to provide a mechanism to organize this funding and to be a platform for deciding on cross-border infrastructure projects. The EAIIF would be anchored to the existing Association of Southeast Asian Nations+3 mechanism with the leader's summit being the apex of the decision making process. However, it will be quite desirable to extend this fund to cover South Asia as well, so henceforth we will refer to it as the Asian Infrastructure Investment Fund (AIIF).[7]

The AIIF would be an independent legal entity that is a non-profit institution. It would raise and lend funds for cross-border infrastructure projects and would be owned by Asian economies, multilateral institutions, and the private sector. Besides its capital, it would raise additional funds from the public sector, development agencies, and the private sector. The purpose of the fund would be to fill the gap between projects that receive cheap funding (through development aid) and those that have to pay their full costs (entirely financed by the private sector at commercial rates). Projects chosen for funding could be those with a high rate of commercial returns or those with the highest social benefits. The AIIF would invite the private sector to participate by setting a framework for the sharing of risks between the public and private sectors. Likewise, there would also be a sharing of risks between countries. The private sector could either invest directly into the EAIIF or the funding could be raised through the Asian Bond Fund (ABF). Another possible source of funding is the Asian Bond Markets Initiative (ABMI), which was endorsed by the finance ministers of ASEAN+3 (Abidin 2010).

The AIIF could be a platform for countries to coordinate their national infrastructure developments that could ultimately be linked to form regional networks. In this way, governments would still have the responsibility and oversight of their national infrastructure projects while meeting the larger regional goals. The proposal to pool Asian financial resources does not preempt the existing bilateral efforts to fund regional infrastructure projects such as the Japanese ODA or the US$10 billion PRC–ASEAN Investment Cooperation Fund. Infrastructure projects financed by development aids are still necessary because they provide financing at very reasonable costs to the least developed countries (Abidin 2010).

Enhancements to ABMI, ABF, CGIF

Further development of Asian bond markets (through the Asian Bond Markets Initiative and the Asian Bond Funds) could provide important support to countries seeking to increase investment for growth, whether for infrastructure or other types of private investment. ASEAN+3 countries (ASEAN plus the PRC, Japan, and Korea) should accelerate the process of establishing a Credit Guarantee and Investment Facility (CGIF) to provide credit guarantees for bond issuance in regional currencies. These efforts are being extended to markets for equities and derivatives as well, under the rubric of the Asian Capital Markets Initiative (ACMI).

[7] It is expected that ASEAN will launch its ASEAN Infrastructure Fund in September of this year, with a funding amount of US$450 to $480 million (Jakarta Post 2011).

6.5 Measures to improve regional financial stability

Regional monitoring and surveillance: Asian Financial Stability Dialogue

One of the most important steps in regional cooperation is better information and analysis, to understand the extent of the financial interdependencies in the Asian region, and to assess the challenges these pose and how they can best be addressed. Europe has one key advantage over Asia in this regard. At the outset, in 1956, the European Community set up a central organization, the European Commission, whose task it is to promote the process of integration. Other institutions have since been added, including, most notably, the European Central Bank. Corresponding Asian institutions, insofar as they exist, are small and have little power by comparison. Hence, to make substantial progress in improving regional financial stability, there needs to be a suitable driving force. Plummer (2010) and others support the idea of an Asian Financial Stability Dialogue (AFSD), which was first suggested in Kuroda (2008). This entity could build on existing institutions in the region, including the Economic Review and Policy Dialogue (ERPD) and the Executives' Meeting of Asia-Pacific Central Banks (EMEAP). The body should include the participation of finance ministries, central banks, and financial market regulators and supervisors.

In the early stages, such an arrangement could focus on issues that would help advance the areas of common interest that have already been identified and that are largely being dealt with under separate initiatives, such as the management of volatile short-term capital flows. Plummer (2010) sees it initially focusing on improving early warning systems, being able to assist in negotiations on common exchange rate changes, and, perhaps, helping in crisis management. This is akin to the open method of coordination in the EU, whereby countries agree that certain common objectives should be targets for the medium term. It is each country's choice how far to go in implementing any of the agreement, but the role of the secretariat (the European Commission in the EU case) is to monitor progress and publish the results. When countries see themselves, in effect, in some form of league table, it may put peer pressure upon them. The problem with this arrangement is that it is easy for countries to implement measures that enable them to claim that they have undertaken the necessary actions, but it is quite difficult to see to what extent these actions are working in practice and whether the desired changes have really taken effect.

The principal question is how far an AFSD might proceed beyond simply monitoring, diagnosing potential threats and suggesting remedies. One of the problems revealed in the run-up to the present crisis is that some organizations, particularly the Bank for International Settlements, did diagnose various sources of fragility, but they had no powers to act upon them. The establishment of the Association of Southeast Asian Nations +3 Macroeconomic Research Office in Singapore in 2011 is an important step in this direction.

While an AFSD as outlined by Kuroda (2008) would not be aimed at the sorts of closer harmonization of financial markets and tools in member countries as developed in Europe and accelerated under the Lamfalussy process, Hsu and Liao (2010) suggest this is exactly the road it should take, with matching committees of Asian banking supervisors, Asian securities and futures supervisors, and Asian insurance and pension supervisors. They see these committees as identifying areas where common regulatory arrangements would be helpful. However, while they might be able to develop such recommendations, it will still be up to the individual countries to implement such change.

Plummer (2010) argues that an AFSD could play an important role in developing best practice for securities markets in the region and in encouraging the development of regional markets.

This would not merely make it easier for investors to address a number of markets, but would deepen the markets so that a yield curve over the range of maturities could develop. This would be a marked improvement over the rather fragmented present framework.

The structure of the proposed AFSD relates closely to the objectives of the Financial Stability Board at the global level. Its predecessor, the Financial Stability Forum, promoted the observance of standards and codes. An AFSD can thus be seen as a first step toward achieving greater financial stability in the region. It makes more sense to have an organization with a limited mandate that makes successful progress than to try to leap immediately to closer cooperation without the necessary political and popular support.

EMEAP has been playing an increasing role in helping Asian countries work together in recent years. While it may be overambitious to suggest that this might develop into an Asian Bank for International Settlements (Plummer 2010), it nevertheless presents a possible organizational basis for increasing cooperation. As yet, the organization does not have a developed secretariat, although participating central banks service its subcommittees and working groups. In some respects, the problem for Asia is that there are quite a number of different forums for cooperation, comprising different groupings of countries, rather than one with a major focus that has the resources and mandate to make a major impact.

Financial Safety Net: Chiang Mai Initiative Multilateralization

Following dissatisfaction with the role played by the IMF during the Asian financial crisis of 1997–1998, a regional cooperative financing arrangement to supplement IMF resources was agreed in May 2000 at the ASEAN+3 Finance Ministers' Meeting in Chiang Mai, which is referred to as the "Chiang Mai Initiative (CMI)". It initially took the form of bilateral swap agreements, but in May 2007 the region agreed to convert the bilateral schemes of the CMI into a multilateralized self-managed reserves pooling scheme governed by a single contractual agreement, or the Chiang Mai Initiative Multilateralization (CMIM). The size of the agreement was increased to $120 billion, and the amount of the allocation that would be withdrawn without triggering an IMF program was increased from 10% to 20% (so-called "IMF conditionality" or "IMF linkage") (Sussangkarn 2010).

Finally, the ASEAN+3 Macroeconomic Research Office (AMRO) was established in May 2011 to provide surveillance capability within the region. This ultimately has the aim of ending the need for relying on IMF conditionality, which has proved a stumbling block to members' willingness to use the CMIM up until now. Because of the experiences of various Asian economies with IMF programs during the Asian crisis, most Asian countries find it politically unacceptable to seek assistance from the IMF unless all other options are exhausted. For example, during the global financial crisis, Korea sought help from the US Federal Reserve and Indonesia from the Bank of Japan and the People's Bank of China, rather than resorting to the CMI. Therefore, eliminating IMF conditionality is a necessary step to making the CMIM a functional financial safety net within Asia's regional financial architecture.

The CMIM needs other improvements as well to make it effective. First, the CMIM borrowing quota may not be enough if a country gets into serious problems. To address this issue, CMIM funds should be increased further, and it should be made possible for CMIM funds to be supplemented with additional contributions from countries in the group. Second, instead of just borrowing from the CMIM, countries should also be able to arrange swap facilities with the CMIM, in a similar manner as with central bank swaps. Third, new instruments, such as a precautionary credit facility for a near-crisis situation should be introduced. Fourth, it should be possible for other members of the East Asian summit not part of the ASEAN+3 (Australia, India, and New Zealand) to participate in CMIM activities. Finally, the AMRO needs to have sufficient resources and staffing to support the capabilities of an Asian monetary fund (Sussangkarn

2010). Fulfillment of these improvements should enable the CMIM to become a full-fledged Asian monetary fund.

Relation with international financial institutions

International economic and financial decision-making has been invigorated by the shift to the G20 as the premier international forum, thereby including the voices of emerging economies as well as those of advanced economies. However, effective global economic governance will also require changes in key global organizations—such as the International Monetary Fund, World Bank, World Trade Organization, and the Financial Stability Board—and closer collaboration between global and regional organizations. Kawai and Petri (2010) argue in favor of introducing federalism on a global scale by creating hierarchies of global and regional organizations with overlapping ownership structures in various functional areas (as is already the case with the World Bank and regional development banks in the area of development finance). If Asia manages to build effective institutions to promote macroeconomic and financial stability and deepen financial integration, as described in the previous section, this can provide a good precedent for the federalism process.

Decentralization could be achieved through independent organizations linked together—and perhaps to a "senior" global organization—by rules and procedures. An example of such rules, albeit little used so far, is the General Agreement on Tariffs and Trade (GATT) Article XXIV, which establishes relationships between regional trade agreements and the global trading system. This solution would create linked hierarchies of global and regional organizations with different ownership structures. This framework is illustrated in Table 17 for the three functional areas—macroeconomic stability, development finance, and financial system stability. The applications to each area are described below.

Table 17: Institutional Families in Global and Asian Economic Governance

Function	Global Institutions	Asian Examples
Macroeconomic Stability	IMF Surveillance, crisis lending, systemic stability	Asian Monetary Fund (to evolve from CMIM) Regional surveillance, crisis lending, stability
Development finance	World Bank Global public goods: poverty, environment, food and energy	Asian Development Bank Regional development priorities, regional infrastructure lending
Financial system stability	Financial Stability Board Global standards, colleges of regulators	Asian Financial Stability Dialogue (to be created) Asia's regulatory initiatives

Source: Adapted from Kawai, Petri, and Sisli-Ciamarra (2010).

In the area of macroeconomic stability, regional organizations—alongside the IMF—could act as "first responders" in the case of regional threats. This could avert the criticism that the IMF reacts too slowly because it represents the interests of countries outside the region, and it could better internalize spillovers among closely-linked economies. Also, experience shows that the financial requirements of a full-blown crisis can be very large, and that no one institution is likely to have sufficient funds to contain a crisis.

In the area of development finance, regional development banks already exist alongside the World Bank, and the next step is to improve the division of labor between regional and global

organizations. Ideally, the World Bank, should focus on global objectives and externalities, such as the Millennium Development Goals, climate change, food and energy security, and epidemics. In contrast, regional development banks should focus on regional issues and externalities, such as regional infrastructure connectivity and regional environmental protection.

In the area of financial system stability, the global financial crisis has highlighted the need for an international framework for monitoring, regulating and supervising the cross-border activities of systemically important financial firms, products and transactions. The FSB has been tasked with establishing such a framework and coordinating the authorities charged with implementing it. In collaboration with the IMF, it is also charged with providing early warning of macroeconomic and financial risks and proposing actions to remedy them. As described above, a similar structure should also be developed in Asia. This would parallel the structure of the AFSD described above. The AFSD could play a valuable role by translating FSB initiatives into a regional context and then helping to implement them.

Improve FX policy management and coordination

Although some exchange rate flexibility is desirable, a pure floating system is probably not a practical option for most East Asian emerging economies, given the potential for excessive volatility and misalignment, and the possibly adverse impacts on trade and investment. Since many economies are competitors to each other, some exchange rate stability is desirable to prevent an unnecessary reallocation of resources that may be reversed within a short period of time. Asia needs a type of regional framework for exchange rate stabilization, which promotes intraregional exchange rate stability while retaining sufficient flexibility against external currencies.

Kawai and Takagi (2011) propose a staged process for increasing Asian currency coordination. At least initially, the operation of a regional exchange rate policy coordination mechanism in Asia should be less formal and more flexible than the European Monetary System (EMS) of 1979–98, given the current lack of commitment to full-fledged regional monetary union, the greater diversity in the level of economic and financial development across the region, and the dynamic nature of East Asian economies with rapid growth, evolving economic structures, and possibly differing inflationary tendencies. These features make it likely that the East Asian economies face very different economic shocks and imbalances in certain circumstances, thus necessitating nominal exchange rate adjustment from time to time. There should be a presumption that the economies adjust the reference rates with respect to the basket differently over the medium term.

The first step for concrete exchange rate policy coordination is to introduce an informal process to achieve both greater exchange rate flexibility vis-à-vis the US dollar and some exchange rate stability within East Asia. This can be done by using a common or a similar basket of SDR-plus currencies (the US dollar, the euro, the British pound, the yen, and emerging East Asian currencies) as a loose reference. Under this scheme, those economies under US dollar pegs will increase exchange rate flexibility; all emerging East Asian economies will essentially adopt a managed float targeted at an SDR-plus currency basket—as is currently practiced by Singapore. During this phase, the AMRO could play a secretariat role to manage the pooled resources and to negotiate a program of economic policies with a country seeking financial support in the event of a crisis, in addition to providing significant inputs to the ERPD process.

To give teeth to the process of policy dialogue and surveillance, there must be agreement on the choice of analytical tools to use in monitoring economic developments and addressing policy spillovers across economies in the region. The most important indicator to agree on is an indicator of exchange rate misalignment. The least politically challenging way to devise such an indicator is to calculate a separate effective exchange rate index for each economy and monitor

how the value of each currency is changing in effective terms. The purpose of such an indicator, at least initially, is to help identify the reason why the effective exchange rate index for a particular currency is moving in a particular direction. Once there is agreement on the choice of weights, a currency basket—called the Asian currency unit (ACU)—could be used as a divergence indicator of the type used in the EMS (Takagi 1989).

The second step is the joint adoption of a formal policy of stabilizing intraregional exchange rates using a common basket of SDR-plus currencies (i.e., the US dollar, the euro, the pound, and the ACU) as a reference. The basket stabilization policy would have to be well defined with respect to how the central rates should be defended. The authorities would allow greater exchange rate flexibility vis-à-vis the US dollar while enjoying a lesser degree of national monetary policy autonomy. The ACU index should continue to serve as an important indicator in measuring the joint movements and divergences of East Asian currencies, and its use in the financial markets should be encouraged. The AMRO—or any full-fledged CMIM-ERPD secretariat that may succeed it—would then be transformed into a more structured Asian monetary fund (AMF). India's participation in the AMF would be an important further development.

The third step would be to launch more systematic exchange rate and monetary policy coordination to create a regional monetary anchor. Here, two approaches are possible—the "European" approach and the "parallel currency" approach (Eichengreen 2006). Under the "European" approach, a common basket peg similar to the snake or exchange rate mechanism (ERM) could be introduced. All currencies will become freely flexible vis-à-vis external currencies, such as the US dollar and the euro, but maintain intraregional stability through the joint stabilization of individual currencies with respect to the ACU. The mechanism should include clearly-defined, transparent monetary policy and intervention rules so as to provide a credible monetary anchor within East Asia as well as a fully elaborated short-term liquidity support arrangement, which is large and speedy enough for frequent interventions in the region's currency markets. The AMCF will become the clearing house of frequent interventions as well as the issuer of official ACUs. Fiscal policy rules may also be designed to lend credibility to the exchange rate stabilization scheme. A practical approach is to take a multi-track, multi-speed approach, whereby economies ready for deeper policy coordination begin the formal process of policy coordination while others prepare to join later.

7. POLICY RECOMMENDATIONS

By 2030, many ACI economies are expected to achieve developed economy status, and the financial sector must contribute substantially to support this development. The financial sector is a critical part of the infrastructure to support high and sustainable growth in the ACI region over the next two decades. This section summarizes our policy recommendations at the national, sub-regional and regional levels.

First, ACI financial markets must increase their depth, sophistication, and reach in terms of financial inclusion in order to support an economy with much higher wealth but also high demands for investment. This includes investment in "public goods" areas such as infrastructure, health, education, and green growth where the private financing mechanism cannot be relied on to generate sufficient investment without policy intervention. Adequate financial infrastructure in terms of derivatives markets, credit rating agencies, and government debt management needs to be introduced. Systems for clearing and settlement also need to be upgraded. Table 18 shows where action is needed by individual countries in these areas.

Table 18: Action Areas for Financial Deepening and Efficiency

	PRC	IND	INO	MAL	PHI	SIN	THA	VIE
Deepening								
Infrastructure for Securities and FX Markets								
Repo operations	X		X	X	X		X	
Securities lending							X	
Local currency borrowing	X	X	X	X	X		X	X
FX settlement			X	X				
FX restrictions	X	X	X	X	X		X	X
Income payments			X					
Jurisdiction issues	X		X					
Taxes	X		X		X		X	X
Registration	X	X	X		X		X	X
Access to local settlement	X		X		X			X
Omnibus accounts	X		X					X
Support for Infrastructure Financing								
Strengthen PPP infrastructure		X	X		X		X	
Government Debt Management								
Improve supply managemen	X	X			X		X	X
Efficiency								
Payments, Clearance and Settlement								
Introduce RTGS								X
Upgrade RTGS	X	X	X	X	X	X	X	
Competition Policy								
Liberalize foreign entry	X	X	X	X	X		X	X

Note: PRC = People's Republic of China; IND = India; INO = Indonesia; MAL = Malaysia; PHI = Philipp
THA = Thailand; and VIE = Viet Nam.
Source: Authors.

Increasing financial inclusion is a key aspect of achieving sustainable growth and improving income distribution. This includes finance for consumers, MSMEs, micro-finance and green finance. Table 19 shows areas for further action by individual countries in this area.

Table 19: Action Areas for Financial Inclusion

	PRC	IND	INO	MAL	PHI	SIN	THA	VIE
Increase access								
Consumer finance	X	X	X	X	X		X	X
MSME finance	X	X	X	X	X		X	X
Micro-finance	X	X	X	X	X		X	X
Green finance	X	X	X	X	X	X	X	X
Improve data systems								
Credit guarantee system	X	X	X		X		X	X
Credit data	X	X	X	X	X		X	X
Legal and regulatory infrastructure								
Consumer protection	X	X	X	X	X		X	X
Micro-finance regulation	X	X	X	X	X	X	X	X

Note: PRC = People's Republic of China; IND = India; INO = Indonesia; MAL = Malaysia; PHI = Philip
THA = Thailand; and VIE = Viet Nam.
Source: Authors.

At the same time, ACI economies must take steps to enhance financial stability, including upgrading their microprudential supervision frameworks in line with the Basel 3 rules and improving regulatory capacity. They also should review their monetary and macroprudential policy frameworks for supervision, management of procyclicality and management of crises, and strengthen them if needed. A framework for management of volatile capital flows should be seen as an integral part of macroprudential management. Regulatory frameworks also must be extended to support inclusive financing while at the same time maintaining financial stability. Table 20 summarizes areas for action in this area for individual countries.

Table 20: Action Areas for Financial Stability

	PRC	IND	INO	MAL	PHI	SIN	THA	VIE
Microprudential								
Strengthen capacity	X	X	X	X	X		X	X
Close regulatory gaps	X	X	X	X	X		X	X
Implement Basel III	X	X	X	X	X	X	X	X
Macroprudential - Domestic								
Strengthen monetary policy framew	X	X	X		X		X	X
Structure for surveillance	X	X	X	X				X
Macroprudential tools								
Structure for crisis management	X	X	X	X				X
Macroprudential - Capital flows								
Capital account liberalization	X	X	X	X	X		X	X
Capital flow management tools			X	X	X	X	X	X

Note: PRC = People's Republic of China; IND = India; INO = Indonesia; MAL = Malaysia; PHI = Phi
THA = Thailand; and VIE = Viet Nam.
Source: Authors.

In these areas, steps taken at the national level will be necessary but not sufficient, so will need to be supplemented by regional cooperation measures. Many ACI markets are too small to generate sufficient scale economies to lower transaction costs to attractive levels. High and inconsistent levels of regulation of foreign exchange and other transactions, taxation, settlement procedures, etc., discourage foreign investors and keep markets too small. This points to the need for harmonization of regulations and tax policies within the region, as well as potentially the development of an ACU-denominated bond market. The achievement of the ASEAN AEC program is the logical starting point and model for this. An Asian Financial Stability Dialogue can provide a forum for deciding on harmonization measures. Some countries also lack adequate

fiscal resources for needed public investment. The development of an Asian Infrastructure Investment Fund and further enhancements of the ABMI (including the extension to ACMI) and ABFs could help to recycle high levels of Asian savings within the region to support investment for infrastructure and other uses. Finally, steps to achieve full convertibility of the yuan and the rupee, together with the development of Shanghai and Mumbai as regional financial centers, can help promote regional financial integration. Actions recommended in this area, both at the level of ASEAN and ACI, are shown in Table 21.

Table 21: Action Areas for Financial Integration

	ASEAN	Asia	Global
Deepening and efficiency			
Harmonization of financial markets			
Regulation	AEC	AEC as model	
Taxation	AEC	AEC as model	
Capital account liberalization	AEC	AEC as model	
ACU bond market		X	
Efficiency			
Develop regional financial centers		Mumbai, Shanghai	
Regional clearing & settlement institutio	X	X	
Mobilizing savings			
Extend ABMI and ABF	X	X	
Asia Infrastructure Investment Fund	X	X	
Financial stability			
Regional monitoring and surveillance		AMRO, AFSD	Coordination with IMF, FSB
Financial safety net	CMIM	CMIM	Coordination with IMF
FX policy management			
Use ACU as reference	X	X	
Gradual increased coordination	X	X	

Source: Authors

To promote financial stability and support macroeconomic and financial policy coordination, including greater exchange rate coordination, the region's economies must make greater efforts to strengthen regional financial cooperation—the Chiang Mai Initiative Multilateralized (CMIM) and Economic Review and Policy Dialogue (ERPD). Once the region puts in place the CMIM with sufficient capacity to conduct regional economic surveillance and to formulate independent adjustment policy, its lending operations can be delinked from IMF programs. Only then will the facility establish itself as an independent regional monetary fund and financial safety net. The recent creation of the ASEAN+3 Macroeconomic Research Office (AMRO) is an important step in this direction. Much work remains, however, in strengthening collaboration between the region's finance ministers and central bank governors as well as harmonization among the region's financial sector supervisors and capital market regulators. Along with establishing these regional institutions, it will also be necessary to define their role vis-à-vis their corresponding international financial institutions. Finally, increased use of the ACU as a reference can play a part in a gradual program of increased currency coordination within the region.

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