Financial Deepening and Financial Integration in Asian APEC Economies

Abstraksi

Kajian ini merupakan analisa perkembangan keuangan dari dua belas ekonomi APEC Asia, termasuk Indonesia, Jepang, Republik Korea, Malaysia, Filipina, Singapura, Thailand, Cina, Taipei Cina, Hong Kong Cina, Vietnam, dan Brunei Darussalam sejak Krisis keuangan Asia Timur 1997 hingga saat ini. Penyebab krisis moneter di tahun 1997 adalah prevalensi mata uang serta ketidaksesuaian jatuh tempo di mana ekonomi meminjam dalam dolar untuk pembiayaan domestik tanpa asuransi terhadap volatilitas nilai tukar secara memadai. Selain itu, pola pinjaman jangka pendek untuk memenuhi investasi dan kebutuhan jangka panjang menciptakan ketidaksesuaian mata uang dan jatuh tempo. Namun sebaliknya, gejolak keuangan global 2008 memiliki dampak yang relatif ringan pada sektor keuangan Asia Pasifik. Hal ini antara lain menunjukkan eksposur terbatas lembaga keuangan Asia Pasifik terhadap *subprime mortgage* mencerminkan rendahnya perkembangan integrasi keuangan antar kawasan.

Kesenjangan kualitas dan kedangkalan relatif pasar keuangan Asia Timur mendorong intermediasi keuangan di luar negeri. Masih diperlukan peningkatan transparansi melalui pengungkapan dengan meminta pengungkapan informasi yang cukup, akurat dan tepat waktu yang berkaitan bisnis perusahaan, keuangan, prospek dan hal sekuritas untuk memungkinkan investor untuk membuat keputusan. Cina, misalnya, seabagai ekonomi terbesar dunia perlu untuk secara bertahap meliberalisasi akun modal dari neraca pembayaran, dan mengembangkan kebijakan moneter berbasis pasar. *Financial deepening* juga memerlukan sistem hukum dan akuntansi yang wajar berada di tempat.

Pada sisi lain banyak kendala yang telah diidentifikasi sebagai penghambat pengembangan sektor keuangan seperti relatif kecilnya omzet pasar, ketidaksetaraan standar akuntansi dan audit, serta pembatasan modal asing. Namun demikian kondisi pasar keuangan negara berkembang yang relatif lebih stabil membuat kendala tersebut dapat diatasi melalui peningkatan stabilitas makroekonomi. Seperti halnya pengembangan pasar modal di tahun 1990an, kehadiran investor asing akan membantu pengembangan lebih lanjut sektor keuangan Asia Pasifik di mana dalam jangka panjang ekonomi di kawasan ini akan memerlukan pasar valuta asing dan derivatif untuk memastikan harga yang kompetitif antara segmen pasar keuangan konventional dengan alternatifnya. Kajian ini juga mengupas imunitas dari mayoritas ekonomi Asia Pasifik terhadap krisis keuangan global sebagai paradoks dari konsensus Washington yang menjadikan pendalaman dan integrasi sektor keuangan sebagai syarat perlu keberhasilan pembangunan ekonomi.

I. Introduction

Raymond Atje and Maria Monica Wihardja wrote “financial deepening and Financial Integration in Asian APEC Economies: What Have We Learned?" in CSIC 2011 journal and presented in the Focus Group Discussion (FGD) held by Center for Regional and Bilateral Policy on 12 December 2011 in which a review on financial development in the twelve Asian APEC economies, including Indonesia, Japan, Republic of Korea, Malaysia, Philippines, Singapore, Thailand, China, Taipei China, Hong Kong China, Vietnam, and Brunei Darussalam. The 1997 East Asian financial crisis (hereafter, the East Asian financial crisis) revealed the weaknesses of the region’s financial sectors. It had had devastating impacts on banking sector in some countries, most notably Indonesia, Thailand and Korea. At the center of the crisis was the prevalence of currencies as well as maturities mismatches throughout the region. A currencies mismatch occurs when residents of a country have assets in local currency but liabilities in foreign currency. Such was the case in many economies in East Asia at the onset of the crisis. Banks and corporations with liabilities in dollar were not adequately hedged against a possible change in the exchange rate. In addition, many of them also had larger short-term liabilities relative to their assets. So, when the region’s local currencies experienced large depreciations against dollar their assets were no longer sufficient to service their liabilities.

It should be noted that, prior to the crisis, most economies in the region adopted fixed exchange rate. Such an exchange regime provided holders of dollar denominated liabilities with implicit guarantee against a sudden and large depreciation of local currencies vis-à-vis dollar. Hence banks and corporations borrowed only in dollar without adequately insured themselves against exchange rate volatility. Moreover, they often borrowed short term to meet their long-term investment needs and, therefore, created a double mismatch: currency and maturity mismatches.

In contrast, the recent global financial turmoil has had relatively mild impacts on East Asian financial sectors. It signifies a number of things. Firstly, it suggests limited exposures of the region’s financial institutions to subprime mortgage-related securities. This, in turn, reflects, in part, the relatively low level of financial deepening or financial development, especially among the region’s emerging economies. In the case of Indonesia, for instance, none of the country’s banks have significant, if any, presence abroad. In addition, these banks do not undertake significant investment activities, e.g., issuing and selling securities in capital markets. Secondly, it may also suggest an improved soundness of the region’s financial institutions, especially in the aftermath of the East Asian financial crisis.

The severity of the East Asian financial crisis has prompted governments in the region to undertake necessary steps to strengthen their financial sector, banking sector in particular. In addition, they also decided to promote a greater financial integration at the regional level. The aim is to reduce financial vulnerabilities as well as to provide conduits for recycling of the region's excess savings within East Asia. One such attempt is a creation of the Asian bond market (ABM) with the help from the Asian Development Bank (ADB).

In another development, the ASEAN Plus Three countries, viz. the ten ASEAN member countries, China (including Hong Kong), Japan and South Korea (i.e. the twelve Asian APEC economies, minus Taipei China) have launched a multilateral currency swap arrangement. It draws from a foreign exchange reserves pool worth USD 120 billion. It was initiated in Chiang Mai, Thailand, and, hence, the name Chiang Mai Initiative Multilateral (CMIM). Its main purpose is to allow the member countries to manage their short-term liquidity problems.

There are a number of conclusions that one may draw from the East Asian financial development experience. First, in a certain way, most financial systems in the region are still dominated by banks. In Japan- the region's most developed economy - the banking sector is still the largest in terms of asset sector, much larger than its equity and bond markets capitalization. Recently, there have been some notable improvements in the region's banking performance: lower non-performing loan, higher capital adequacy ratio, and notwithstanding the global financial crisis higher return on assets in almost all of countries the region. Meanwhile, there has been a change in the intermediary function of the banking sector, as well. The share of credit going to corporate sector has fallen in some countries such as Indonesia, Korea and Malaysia, while lending to household sector has increased significantly. In addition, loan-to-deposit ratio is relatively low in many economies, suggesting that, for whatever reason, banks throughout the region seem to have turned more risk averse in recent years.

Second, the emerging East Asian stock markets are increasingly becoming important source of investment funds through both primary and secondary issues. In general there has been a move toward improving corporate governance in the region's stock markets. This includes protection of minority shareholders and improvement in transparency through disclosure. There are two basic models of regulatory systems, i.e., disclosure-based and merit-based. Hong Kong, Singapore, Malaysia and, to a lesser extent, Korea, Indonesia and Thailand, have adopted disclosure-based system, whereby the issuers and intermediaries offering securities are required to provide sufficient, accurate and timely information pertaining the company's business, finances, prospects and terms of the securities to allow investors to make informed decisions. Meanwhile, China and the Philippines are still following merit-based system. Another important development is the demutualization of a number of stock markets in the region, including Hong Kong, Indonesia, Malaysia, the Philippines and Singapore.

Finally, unlike bank and capital market, bond market is relatively new for many countries in East Asia. Its development has been prompted by severity of the East Asian financial crisis. While the primary markets have grown significantly, yet the growth in some markets has been led by quasi-government issuers or issuers with some form of credit guarantee. Moreover, issuers in some markets, such as Malaysia still concentrate at the high end of the credit quality spectrum. The secondary bond markets have developed even slower than the primary markets. Some markets are relatively small and, hence, seem to lack investors' diversity. Foreign investors, including global financial intermediaries, have avoided those markets. They have been discouraged by, among other things, withholding taxes and the lack of deep markets for hedging instruments.

The rest of the paper proceeds as follows. Section II provides a brief review of recent development in financial literature. Section III reviews the state of financial development in East Asia. Section IV briefly discusses the progress toward financial integration in the region. Finally Section V provides recommendations as to what countries in the region may need to undertake so as to deepening their financial development.

II. Financial Development Literature: A Brief Review

In a recent paper, Bekaert et al. (2005) examine the impact of capital market liberalization on economic growth. The idea is that equity market liberalizations give foreign investors opportunity to invest in domestic equity securities and domestic investors the right to transact in foreign equity securities. To measure equity market liberalization they use official equity market liberalization indicator. The variable takes the value of one when it is possible for foreign portfolio investors to own equity of a particular market and zero otherwise. They find that, after controlling for a host of variables, capital market liberalizations lead to, on average, a one percent increase in annual real economic growth. This is a large number on which Henry (2007) argues that, form neoclassical perspective, such a large growth effect is difficult to fathom unless equity market liberalization also induces growth in total factor productivity (TFP). Bekaert et al. also find that the positive effect on growth is largest when the quality of institutions and the level of financial development are high.

Rajan and Zingales (1998) test the validity of the idea that the costs of external finance to firm drop with financial development. To do this they examine whether industrial sectors that are more dependent on external finance develop disproportionately faster in countries with more developed financial markets. Their study confirms this assertion and for a large number of countries during the 1980s. In other words, according to the study, by providing external financing to sectors that need it the most, financial development, in essence, promotes economic growth.[1]

One of the most binding constraints faced by firms is financial constraint. In a firm-level study, Love (2003) wants to know whether financial development helps alleviating financing constraints faced by firms. In particular, she wants to find out whether financial development eases financial constraint that firms otherwise faced. For this purpose she estimates the Euler equation for investment using firm-level data from 40 countries and finds a strong negative relationship between the extent of financial market development and the sensitivity of investment to availability of internal fund. In other words, the more developed a financial market the less dependent firms in that particular market to internal financing. She also finds that small firms are disproportionately more disadvantaged in less developed financial markets than are large firms. In addition, she finds that an improvement in the efficiency of legal system, which means less risk of appropriation and corruption, and a better accounting system also helps alleviating financial constraint.

Meanwhile, Dermiguc-Kunt and Maksimovic (1999) also conduct a firm-level study. The study focuses primarily on the use of external debt or external equity by firms to expand their activities. In particular, authors ask whether the underdevelopment of legal and financial systems in some countries prevent their firms from undertaking potentially profitable investment opportunities. A well-developed financial market has two important roles, i.e., as a source of capital for firms and information regarding firms' activities for potential investors. In effect, the presence of a well-developed and active capital market in a country will make it easier for firms in that country to raise long-term capital. The study shows that both an active stock market and well-developed legal system are important in facilitating firm's growth. It also supports Levine and Zervos claim that, for firms, the size of the capital market is not as important as the level of its activities in mobilizing capital.

Finally, some recent studies focus on issues concerning capital account liberalization, financial development and economic growth. One such study by Aghion et al. (2006) investigates the interaction between exchange rate volatility and productivity growth, and the role of financial development. The authors argue that it is important to look at the interaction between the exchange rate volatility and both the level of financial development and the nature of macroeconomic shocks. They find that the real exchange rate volatility could conceivably costly to long-term productivity growth. In particular, they find that for countries with relatively low levels of financial development, exchange rate volatility reduces growth but no significant effect for financially-developed countries.

[1] It should be noted, however, that some of the industries that, according to the authors, are in need of substantial external financing such as pharmaceuticals and electronics are also require high degree of research and development (R&D) activities as well as highly skilled workers which only industrialized countries can provide in a sustainable manner.

III. Financial Development in East Asia

Asian APEC economies' financial markets have experienced major changes since the 1997 financial crisis. In particular, as a part of lessons learnt from the crisis, countries in the region have turned their attention to developing their bond markets. Meanwhile, the East Asian capital markets have made a remarkable recovery from their virtual collapse during the crisis. But the banking sector continues to dominate the region's financial intermediation activities (Table 1). Indonesia's domestic credit provided by banking sector accounts for 37% of GDP in 2008, higher than the GDP share of market capitalization of listed companies and the GDP share of bond market capitalization. Countries, like China, Hong Kong China, Japan, Republic of Korea, Malaysia, and Thailand have their GDP shares of domestic credit provided by banking sector of over 100%.

Table 1: Indicators of financial intermediation development

Country Name	Domestic credit provided by banking sector (% of GDP)			Market capitalization of listed companies (% of GDP)			Bond Market Capitalization (% of GDP)		
	2000	2007	2008	2000	2007	2008	2000	2007	2008
China	120	132	126	48	184	65	15	44	49
Hong Kong SAR, China	136	125	125	369	561	218	26	25	23
Indonesia	61	41	37	16	49	19	31	19	20
Japan	309	294	293	68	102	66	126	199	204
Korea, Rep.	89	102	113	32	107	53	73	107	112
Malaysia	179	113	115	125	174	84	78	90	93
Philippines	67	46		34	72	31	29	35	32
Singapore	89	78	84	165	212	99	42	55	54
Thailand	138	132	131	24	79	38	26	51	57
United States	201	241	224	155	145	83	145	172	177

Source: BIS statistics and Financial Structure Data, *siteresources.worldbank.org/INTRES/Resources/**FinStructure_2008_v4**.xls*, July 24th, 2010.

Banking Sector

To prevent the recurrent of financial crisis similar to the East Asian financial crisis, countries in the region have undertaken some necessary measures to improve the soundness of their banking industries. As a result, there has been a notable improvement in the prudential as well as performance indicators of the region's banking systems. Between 2000 and 2008 the ratio of non-performing loans in total loans (NPL) in the banking system has declined significantly across the region (Table 2). China, Indonesia, Malaysia, Philippines, and Thailand have the most significant decreases in the NPL between 2000 and 2008 from double-digit figures to low single-digit figures. Meanwhile, the global financial crisis notwithstanding, return on assets (RoA) also experienced a noticeable increase in almost all of the counties in the region. Indonesia experienced a two-percentage point increase on its RoA from 0.3 in 2000 to 2.3 in 2008.

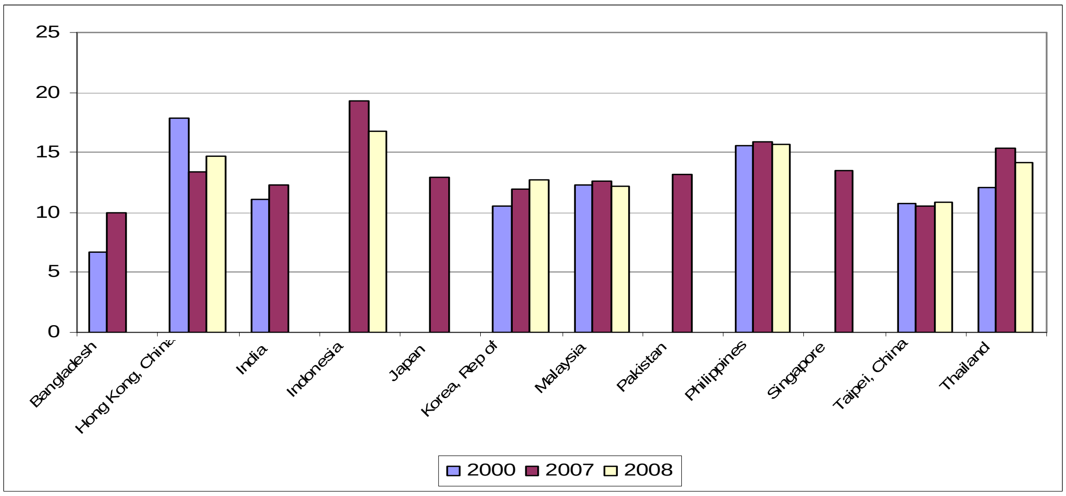
Table 2: Selected Structural Indicators for the Asian Banking Sector (in percent)

Country Name	Non-Performing Loans			Capital assets ratio			Return on assets		
	2000	2007	2008	2000	2007	2008	2000	2007	2008
China	22.4	6.2	2.4	13.5	8.4	12.0	0.2	0.9	1.0
Hong Kong SAR, China	7.3	0.8	1.2	17.8	13.4	14.8	0.8	1.9	1.8
Indonesia	21.8	4.1	3.2	21.6	19.3	16.8	0.3	2.8	2.3
Japan	6.1	1.4	1.6	12.2	12.3	12.4	0.3	0.3	-0.2
Korea, Rep.	8.9	0.7	1.1	10.5	12.3	12.3	-0.6	1.1	0.5
Malaysia	15.4	6.5	4.8	12.5	13.2	12.7	1.1	1.5	1.5
Philippines	24.0	5.8	4.5	16.2	15.7	15.5	0.4	1.3	0.8
Singapore	3.4	1.5	1.7	19.6	13.5	14.7	1.3	1.3	1.1
Thailand	17.7	7.9	5.7	11.9	14.8	13.8	-0.2	0.1	1.0
United States	1.1	1.4	2.9	11.7	12.8	12.8	1.2	0.8	0.0

Source: IMF Global Financial Stability Report.
Note: NPL data as a percent of total loans; Capital assets ratio as a percent of risk-weighted assets.

The emerging Asian APEC economies have also built up capital buffer of their banks. This is evident from the substantial increase in risk-adjusted capital adequacy ratios (CAR) of the region banks since 2000. By 2008, the ratios are well above the minimum Basel II standard of 8% (Figure 1). In most Asian countries, commercial banks have either increased or maintained relatively high levels of capital adequacy. It should nevertheless be noted that a change in a bank's capital adequacy ratio does not solely depend on the additional capital but also on its choice of risk level of its asset. In practice, regulatory pressure does not always induce banks to increase their capital, but to adjust their risk levels instead.

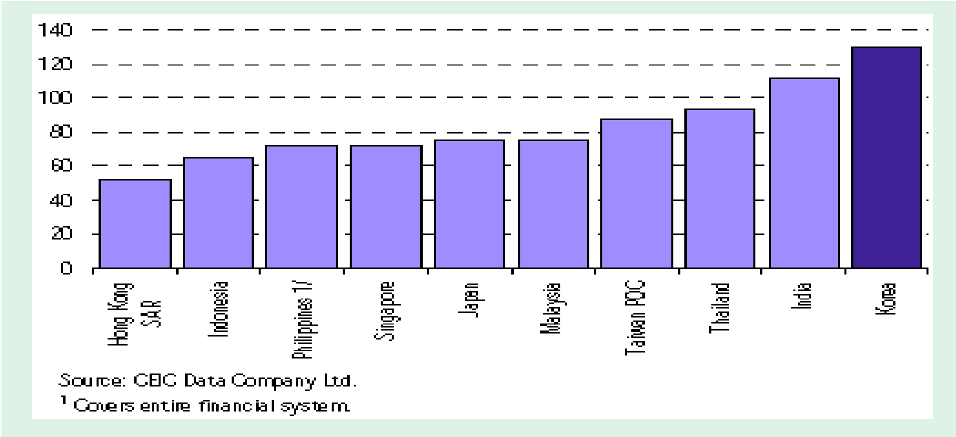
Figure 1: Risk-Weighted Capital Adequacy Ratios (% of risk-weighted assets) in selected Asian Countries, 2000 - 2008



Source: Asia Regional Integration Center, accessed from: http://aric.adb.org/aric_database.php

In addition to capital buffer, most of the APEC Asian economies' banks have also built up their liquidity buffer as indicated by the relatively low loan-to-deposit ratios (LDR). The ratio ranged between 50% and 100%, except for Korea(Figure 2). As a comparison, in the US, LDR exceeds 110%. One way to interpret this is that Asian banks have been over cautious; they prefer to maintain stable funding and remain largely free of liquidity risk.

Figure 2: Bank loan-to-deposit ratio in selected Asian Countries (in percent)



Source: Adapted from Regional Economic Outlook Asia and Pacific, IMF, April 2008

As noted earlier, after the East Asian crisis, financial health of the APEC Asian economies' banking systems has improved. Sizable prudential cushions have been built up as new capital has been injected into the system. However, bank lending to private business remains subdue and credit ratings remain relatively weak. Charles Adams (2008) identifies a number of key changes in the region's banking sectors after the 1997/98 financial crisis.

First, is concentration in the banking systems has increased as a result of restructuring (merger and acquisition of troubled banks). This may have advantages as well as disadvantages. On the one hand, to the extent that there are economies of scale and scope, concentration might lower unit costs and improve efficiency. But on the other hand, based on international experiences, the highly concentrated banking system tends to be riskier than less concentrated ones. Larger banks were prone to moral hazard problem. Second, it was the changes in the bank ownership. Both foreign and private ownerships have increase significantly after the crisis. One of the key regulatory changes undertaken by many counties in the region was the change of rules concerning foreign participation in the domestic banking sector.

According to Gopalan and Rajan (2009), the Asian countries have followed two different approaches with regard to foreign participation in the banking sector. On the one hand, there are countries like Indonesia, South Korea, Thailand and the Philippines that have aggressively open up their financial sector, their banking sector in particular to foreign investors. As a result, the levels of foreign bank penetration in these countries have increased dramatically, especially in Indonesia and Korea but somewhat less in Thailand and the Philippines.

On the other hand, China and, to a lesser extent, Malaysia have been more cautious in liberalizing their financial sectors. In China for instance, the share of foreign bank in the total banking assets was only around 2.3 percent in 2007. Meanwhile, in Malaysia, which has maintained the restrictions of foreign participation in the banking sector, the share of foreign banks assets increased only slightly from 21.6 percent in 1997 to 23 percent in 2008.

Changes is also evident in market structure, although there are significant differences across the region. Banking systems in Hong Kong, China, Singapore and Korea are relatively more competitive whereas those in Thailand, Indonesia and the Philippines are relatively less competitive.

Another change is the movement into investment banking, particularly for banks in more advanced economies. In the past, banks' activities have been concentrated on their core business of providing liquid loans to business and households, financed by liquid deposit liabilities. Nowadays, banks' activities move to the new business lines including securities underwriting and trading, securitization, derivatives and insurance.

There has also been a shift toward household and real estate lending. In fact, the bulk of household lending has been mortgage-related. There are several factors that may influence the shift, such as financial sector deregulation, government efforts to encourage domestic demand, and weak business credit demand. In addition to household and real estate lending expansion, unsecured lending, including credit card finance, has also picked up in Asian countries.

Another noticeable change in the region's banking practices is concerning banks' intermediary role. The banking system throughout the region used to be collecting depositors' funds and pass them as credits to corporations or use them to purchase government bonds. More recently, the share of credit going to corporate sector in Indonesia, Korea and Malaysia fell from over 60 percent in 2000 to below 50 percent by 2005. Meanwhile lending to household sector has increased significantly, and currently hovering between 25 to 50 percent of the total bank credits in those economies.[2]

Furthermore, credit to the business sector has been weak or contracted, with its share in domestic assets falling since the 1997/1998 financial crisis.[3] In contrast, the share of the household sector has increased sharply in several countries during this period.

[2] Mohanty and Turner (2010).
[3] Mohanty, Schnabel, and Garcia-Luna (2006).

While banks have been expanding their retail business through increased mortgage and credit card lending, households have been more willing to finance their consumption and residential investment through bank credit. There is both a demand and supply side explanation to this phenomenon. Demand side factors include, one, weak corporate demand for credit has led banks to seek alternative investment opportunities, particularly as they were awash with liquidity in an easy monetary environment; and two, the increased risk aversion and the associated tendency among banks to hold liquid assets. Supply side factors include, one, increased securities issuance through various channels: large government borrowing in countries where fiscal deficits remain high; two, issuance of more government debt either to develop the domestic bond market (for instance Singapore) or facilitate central banks' sterilized intervention. Yet another factor (for instance Indonesia) has been the recent effort to recapitalize banks or restructure their bad debts by issuing government securities.

When the global financial crisis in 2008 because of sub-prime mortgages problem occurred in the United States, the impact of this turbulence on Asian Banks has been substantially less than the 1997/98 financial crisis. The reasons, according to IMF Regional Economic Outlook 2008, are as the following:

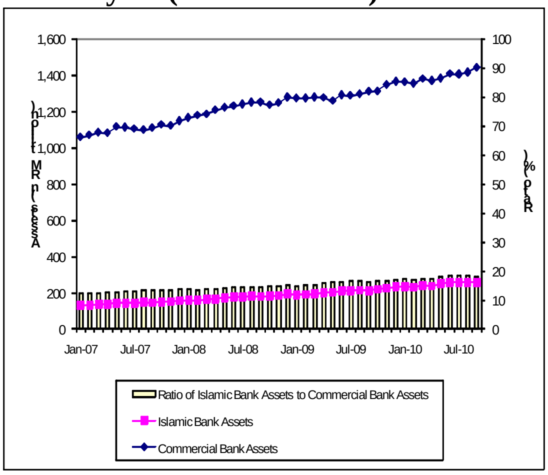
- Asian banks rely more on traditional banking services, with revenues from fixed income, currency and commodities business account for a significantly smaller portion of their income than those of western banks.
- Asian banks are less involved in structured credit and related derivative products. This is because they are still at an early stage in the securitization process.
- Regulators in more developed countries such as Japan, Singapore and Hong Kong, have had a more proactive role in ensuring that smaller local banks have sufficient risk management capacity before they start investing in complex structured products.
- Bank lending has been profitable in many Asian economies.

Moreover, in response to the global financial crisis in 2008, Asian APEC economies have taken action to provide expanded coverage of deposits. For instances: Taiwan, Hong Kong, Singapore and Malaysia provided an unlimited guarantee of all deposits on a temporary basis. Meanwhile, Indonesian government has taken a more cautious approach and only increased the deposit guarantee from IDR 100 million to IDR 2 billion per individual. Marks and Yao (2009) argue that this policy has advantages in the short term because it could strengthen confidence in local and regional banking markets. Yet, in the long term, it could lead to additional costs for banks, depending on how governments intend to pay for such programs. Blanket guarantees, combined with other recent government actions, could also create moral hazard issues within the banking industry. Nonetheless, most of the recent changes made to deposit coverage terms are temporary, and policy makers have given themselves room to reverse expanded coverage in the future.

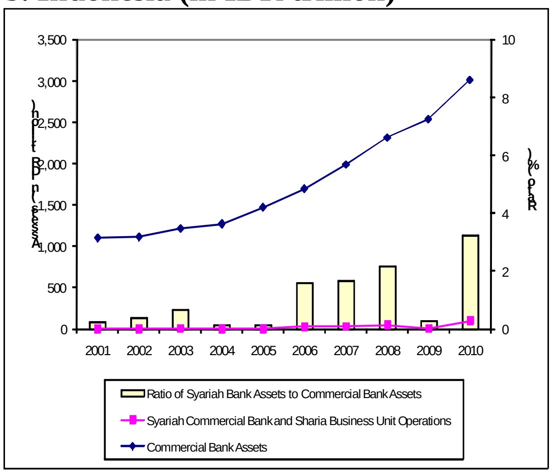
In recent years, Indonesia and Malaysia, two countries with large Moslem population, have introduced Islamic or Shariah banking system. The Shariah banking targets primarily, but not exclusively, Moslem communities in both countries who want to adhere to Islamic teaching that prohibits usury. In terms of assets, the Shariah bank is relatively small. In Malaysia the average share of Shariah bank's assets in the total banking assets between 2007 and 2010 is 15 percent while in Indonesia it is less than 4 percent (Figure 3). There are at least two reasons that may explain the relatively modest growth of the Shariah bank in the two countries. First, the Shariah bank has not proved itself as a serious alternative to conventional bank. Second, most people do not have good knowledge about the way a Shariah bank operates. In particular they do not know what to expect if they put their money in a Shariah bank.

Figure 3: Islamic and commercial bank assets in Malaysia and Indonesia

a. Malaysia (in RM trillion)



b. Indonesia (in IDR trillion)



Source: Bank Negara Malaysia and Bank Indonesia
Note: Islamic Bank Assets comprises Islamic bank, IBS of commercial bank and IBS of investment or merchant banks.

As Husain in Evolution of Islamic Banking notes that education and public awareness is important to develop Islamic financial system. Besides, Islamic banking still faces several challenges such as ineffective enforcement of contracts, inefficient system for early recovery, ineffective code of conduct for professionals, lack of development of Shariah compliant government securities, weak research and development in the field of Islamic finance and economies, and weak human resource development and training to the banks staff on Islamic Banking and Finance.

Capital Market

With regard to capital markets development, the Asian APEC economies' stock markets have become important source of investment funds through both primary and secondary issues. In 2006 for instance, the total amount of funds raised in the region's stock market reached US$105.9 billion, of which primary issues were US$65.9 billion and secondary issues were US$40 billion. In 2007, the total amount jumped by around 90 percent to US$201 billion, comprising US$112 billion of initial public offerings and US$88 billion of secondary public offering (Table 3). In terms of market capitalization, the region's two largest markets, namely, Shanghai and Hong Kong stock markets accounted for around 60 percent of East Asian emerging markets capitalization (Table 3).

Table 3: Market capitalization and new capital raised by share in East Asia Emerging Market (in US$ million)

	2006					2007				
	Initial public offerings	Secondary public offerings	Total IPO and SPO	Market Capitalization	IPO and SPO per Market Capitalization (%)	Initial public offerings	Secondary public offerings	Total IPO and SPO	Market Capitalization	IPO and SPO per Market Capitalization (%)
Shanghai SE	11817.7	4734.6	16552.3	917507.5	1.8	57770.0	29395.5	87165.5	3694348.0	2.4
Hong Kong Exchanges	42972.4	24465.0	67437.4	1714953.3	3.9	37485.9	36541.4	74027.3	2654416.1	2.8
Shenzhen SE	2029.1	3937.9	5967.0	227947.3	2.6	5670.7	7405.6	13076.3	784518.6	1.7
Korea Exchange	2853.3	2473.3	5326.6	834404.3	0.6	3170.0	3806.9	6976.9	1122606.3	0.6
Taiwan SE Corp.	751.5	1361.0	2112.5	594659.4	0.4	566.1	1550.2	2116.3	663716.0	0.3
Singapore Exchange	4800.2	924.1	5724.3	384286.4	1.5	5159.8	4588.3	9748.1	539176.6	1.8
Bursa Malaysia	322.9	645.3	968.2	235580.9	0.4	317.4	2157.5	2474.9	325290.3	0.8
Indonesia SE	364.9	1464.7	1829.6	138886.4	1.3	1976.3	3446.5	5422.8	211693.0	2.6
Thailand SE	474.4	3498.1	3972.5	140161.3	2.8	332.6	606.1	938.7	197129.4	0.5
National Stock Exchange India	4534.9	9610.1	14145.0	774115.6	1.8	7874.1	25470.1	33344.2	1660096.9	2.0
Bombay SE	5600.5	1320.2	6920.7	818878.6	0.8	9642.8	2074.0	11716.8	1819100.5	0.6
NYSE Group	*37130.1*	*66040.1*	*103170.2*	*15421167.9*	0.7	*60385.8*	*76598.4*	136984.2	*15650832.5*	*0.9*

Source: World Federation of Exchange

Of the region emerging markets, capital markets in China, Korea, Singapore and Taiwan were among the most active in 2008 as given by relatively higher turnover ratio in those markets than in other markets in the region (Table 4). Turnover ratio is a measure of market liquidity. Stock market in the Philippines is one of the least active in the region during the past decade.

Table 4: Stock Market Turnover Ratio

COUNTRY	1995	1998	2002	2005	2008	2009
China	1.18	1.23	0.72	0.75	NA	NA
Hong Kong, China	0.35	0.60	0.45	0.42	NA	NA
Indonesia	0.22	0.48	0.43	0.51	0.82	1.31
Japan	0.34	0.38	0.74	1.06	1.60	1.77
Korea, Rep.	1.02	1.20	3.17	1.68	1.94	2.18
Malaysia	0.34	0.30	0.22	0.28	0.78	1.40
Philippines	0.25	0.29	0.08	0.17	0.51	NA
Singapore	0.41	0.54	0.55	0.38	1.85	3.26
Taiwan, China	2.05	3.42	2.42	1.39	2.22	2.86
Thailand	0.40	0.62	1.03	0.72	0.42	0.33
United States	0.74	0.98	2.29	1.27	2.72	3.51

Note: Stock market turnover ratio is ratio of the value of total shares traded to average real market capitalization.
Source: Financial Structure Data 2009

Dalla (2005) notes that there has been general move toward improving corporate governance in East Asian stock markets, including protection of minority shareholders and improvement in transparency through disclosure. There are two basic models of regulatory systems, i.e., disclosure-based and merit-based. Hong Kong, Singapore, Malaysia and, to a lesser extent, Korea, Indonesia and Thailand, have adopted disclosure-based system, whereby the issuers and intermediaries offering securities are required to provide sufficient, accurate and timely information pertaining the company's business, finances, prospects and terms of the securities to allow investors to make informed decisions. Meanwhile, China and the Philippines are still following merit-based system. Another important development is the demutualization of a number of stock markets in the region, including Hong Kong, Indonesia, Malaysia, the Philippines and Singapore.

Some of the recent studies concerning stock market development have focused their attention on a phenomenon known as internationalization. In recent years an increasing number of firms from emerging markets, most notably Latin America, have turned to international markets such New York and London, to raise capital. It seems that most of the firms in question had hitherto been listed in their respective domestic markets. When they turned to international markets they either cross listed their firms on domestic and international markets or delisted their firms at home. This phenomenon has raised concerns because it has an adverse effect on the domestic markets. In particular, there has been a reduction in the domestic trading of firms that cross-list as trading migrates from domestic to international markets. Further, as corollary, there has been a reduction in the liquidity of the domestic market and, hence, hurting the liquidity of the remaining firms in the domestic market.[4]

Interestingly, most of the migrating firms are from more developed emerging markets with sound macro policy, more efficient legal systems, better protection of shareholders, including minority shareholders, and greater openness. Firms from such markets are more able attract foreign investors and firms will go international markets only if they are certain that will be able to attract international investors.[5] This has led Claessens et al. to tentatively conclude that large scale internationalization may make it difficult to sustain fully-fledged local stock markets and, as a consequence may adversely affect medium-sized firms. Medium-size firms are less likely to go directly overseas but at the same time may find it difficult to float their shares in the shrinking local markets.

It seems, from the foregoing discussion, that firms use domestic markets as "showrooms" to attract foreign investors' attention. Without home markets it will become more difficult for them to gauge their ability to attract foreign investors. It will be interesting to see how many firms from emerging markets that have attempted

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[4] Levine and Schmukler, 2005.

[5] Claessens et al., 2006.

to bypass local markets altogether and gone directly to international markets to raise capital and to know their success rate.

Available data suggest that East Asian economies have experienced relatively low rate of firms' migration as compared to Latin American economies. In 2000, the ratio of value traded abroad to value traded domestically was 122.4% for Latin American economies and only 4.0% for East Asian economies. Meanwhile, during the same year, the ratio of capital raised abroad to capital raised domestically was 91.9% for Latin American economies compared to 17.1% for the East Asian economies (de la Torre et al., 2007). The authors do not, however, explain what differentiates Latin America from East Asia that lead to a far greater rate of internationalization in the former as compared to the latter.

Bond Market

Unlike bank and capital market, bond market is relatively new for many countries in East Asia. In the aftermath of the East Asian financial crisis, policy makers in the region have widely recognized the importance of bond market in helping to reduce potential currency and maturity mismatches in the financial system as well as in providing a reliable source of long-term finance to corporate sector. In addition, the growth of a country's bond market also improves the resilience of its financial system. The bond market's intermediary role becomes critical when bank and capital market falter or fail. In other words, with a multilayer financial intermediation in place, financial intermediation activities can continue, even if the primary intermediation is in distress. From this perspective, bank, which is the East Asian primary intermediation, capital market and bond market are considered as having complementary roles. Moreover, the availability of alternative channels of financial intermediation will enhance efficiency of the financial system as whole and, therefore, promote economic growth and development.

Following the crisis, members of the EMEAP (Executive Meeting of East Asia and Pacific Central Bank) group launched the Asian Bond Fund (ABF) initiative aimed at broadening and deepening the domestic and regional bond markets.[6] In June 2003, the EMEAP launched the first stage of ABF (ABF1), which invests in a basket of US dollar denominated bonds issued by Asian sovereign issuers in EMEAP economies except Australia, Japan and New Zealand. In 2005 EMEAP introduced nine funds: Pan Asian Bond Index Fund (PAIF) and eight single market funds, one for each of the following markets, namely, China, Hong Kong, Indonesia, Korea, Malaysia, Philippine, Singapore and Thailand (all of which are APEC economies). Whereas PAIF invests in sovereign and quasi-sovereign local currency denominated bonds

[6] The EAMAP members are Reserve Bank of Australia, People's Bank of China, Hong Kong Monetary Authority, Bank Indonesia, Bank of Japan, Bank of Korea, Bank Negara Malaysia, Reserve Bank of New Zealand, Banko Sentral ng Pilipinas, Monetary Authority of Singapore and Bank of Thailand.

issued in all of the eight markets, each of the eight single market funds invests in sovereign and quasi-sovereign local currency denominated bonds issued in the respective market (Leung, 2006).

With regard to corporate bonds, the primary markets in East Asia have grown significantly. Nevertheless, Gyntelberg and others (2006), note that the growth in some markets has been led by quasi-government issuers or issuers with some form of credit guarantee. One possible explanation is that investors have had little access to information that would enable them to evaluate the credit risks of the issuers. Moreover, issuers in some markets still concentrate at the high end of the credit quality spectrum. In Malaysia, issuers with the equivalent of triple-A ratings account for around 40% of the market while issuers with equivalent of double-A ratings also control around 40% of the market. Meanwhile, in Korea issuers with equivalent of triple-A ratings control around 60% of the market. Gyntelberg and others argue that it is likely that institutional investors in these markets have internal guidelines to invest only in high quality securities.

Table 5: Value of bond listed

Exchange	2005				2007				2008			
	Total	Domestic Private Sector	Domestic Public Sector	Foreign	Total	Domestic Private Sector	Domestic Public Sector	Foreign	Total	Domestic Private Sector	Domestic Public Sector	Foreign
Bombay SE	18297.6	2515.6	15781.9	0.0	33273.5	33273.5	0.0	0.0	NA	NA	NA	NA
Bursa Malaysia	1391.5	1391.5	0.0	0.0	3270.5	3270.5	0.0	0.0	1184.3	1184.3	0.0	0.0
Hong Kong Exchanges	55464.2	9639.4	23117.8	22707.0	54866.2	15304.5	23160.7	16401.1	53415.3	16784.8	21839.0	14791.6
Indonesia SE	NA	NA	NA	NA	59282.6	8417.9	50864.7	NA	54927.0	6698.1	48228.9	0.0
Korea Exchange	714294.7	106149.7	607892.7	252.3	887652.3	101252.3	786346.6	53.4	654831.7	173118.4	481713.3	0.0
National Stock Exchange of India	344223.0	10917.0	333207.4	98.6	504021.8	24149.5	479745.5	126.9	514645.2	27872.8	486669.5	102.9
Osaka Securities Exchange	4807649.7	12177.2	4795472.5	0.0	5118717.1	5626.7	5113090.6	0.0	6289353.1	4628.4	6284724.6	0.0
Shanghai SE	181588.8	16940.5	164648.3	0.0	274799.1	22570.9	252228.2	0.0	263514.8	38995.9	224518.9	0.0
Shenzhen SE	2734.5	2290.8	443.7	0.0	3384.7	2966.8	417.9	0.0	6664.4	5528.4	1136.0	0.0
Singapore Exchange	245460.5	NA	NA	NA	380377.0	NA	NA	NA	397654.5	NA	NA	NA
Taiwan SE Corp.	95720.0	6.5	95652.7	60.9	108844.8	0.2	108844.6	0.0	114175.8	0.0	114175.8	0.0
Thailand SE	18791.8	6870.4	11921.4	0.0	113219.8	11618.7	101601.1	0.0	115234.6	14871.8	100362.8	0.0
Tokyo SE Group	4730812.1	15693.2	4715118.8	0.0	14718.3	14718.3	NA	0.0	6298364.6	13640.2	6284724.4	0.0

Source: World Federation of Exchange

Table 5 depicts market activities in selected Asian bond markets, including ten Asian APEC economies' bond markets. Most of the region's emerging markets experienced substantial increase in activities between 2005 and 2007. However, in 2008 some of the markets experienced a decline in activities, presumably because of the ongoing global financial turbulence. In terms of issuers, public sector still dominates the region emerging markets. Meanwhile a small number markets, most notably Hong Kong, have also been trading foreign bonds. This is consistent with Batten, Hogan and Szilagyi (2009) observation that foreign borrowers which are overwhelmingly of high credit quality and comprise sovereigns, supranational, and major financial institutions enter a market at a later stage of bond market development. Meanwhile, the long-term viability of foreign bond markets appears to be linked to the presence of highly liquid foreign exchange and derivatives markets; the presence of benchmark issues, and competitive pricing between alternate market segments.

The secondary bond markets have developed even slower than the primary markets. There are a number of factors that have been identified as possible reasons for the illiquidity of the secondary markets. Firstly, some East Asian markets seem to lack investors' diversity. In particular foreign investors, including global financial intermediaries seem to have avoided those markets. According to Gyntelberg and others, they have been discouraged by, among other things, withholding taxes and the lack of deep markets for hedging instruments and the introduction of ABF2 has helped to address these issues. Meanwhile, Burger and Warnock (2007) argue that bond markets in developing countries tend to be more volatile and exhibit significantly more negative skewness than developed country bonds, whether returns are hedged or not. These are factors that, according to them, US investors shun. They also argue that improving macroeconomic stability can help to mitigate these problems.

IV. Regional Financial Integration

In the aftermath of the 1997/98 East Asian financial crisis, countries in the region have attempted to promote regional financial integration. There were a number of reasons behind such an attempt. Firstly, one primary reason as to why the crisis that had had a devastating impact on the banking sector of some of the countries in the region was the existence of mismatches (maturity and currency) in debtor balance sheets. To address this issue regional governments with the assistance from ADB have been fostering of local currency debt markets through the creation of the Asian Bond Market, which is an initiative of ASEAN+3 countries (ASEAN, China, Japan, and Republic of Korea). Eleven out of the twelve Asian APEC economies are member states of the ASEAN+3 grouping, with Taipei China not being a part of the grouping (Taipei does not contribute to the CMIM's self-managed reserve pool).

Secondly, there is also a desire in the region to recycle the region's excess savings within the region; that is, to invest them directly in the region. So far Asians have been sending large amounts of their savings abroad, especially to the US. The savings would then come back to the region in the form of foreign direct investment (FDI) and portfolio investment (Hannoun, 2008).

As noted earlier, the region has also established the CMIM under the auspices of the ASEAN + 3. The CMIM is a self-managed reserves pooling arrangement and governed by a single contractual agreement. The total size of the reserve pool is $120 billion for which China, Japan and Korea will contribute 80 percent of the amount with a breakdown as the following: China together with Hong Kong SAR will contribute $38.4 billion (32 percent), Japan $38.4 billion (32 percent) and Korea $19.2 billion (16 percent). The ASEAN countries together will contribute $24 billion (20 percent) to the pool.

The idea of having a greater regional financial cooperation is twofold: to prevent or, perhaps more accurately, to reduce the likelihood of a systemic financial crisis from happening and, in the case of a crisis, to mitigate its impact on the affected country or countries. With regard to CMIM, there is the desire, in the event of a crisis, to have a quick disbursement of fund with minimal conditionality. The desire to have a quick response is understandable. A failure to promptly responding to a demand from a country that is facing a looming crisis may end up cost more than if the crisis and contagion have been prevented at an earlier stage.

The desire to have a minimal conditionality poses a dilemma, however. Countries may run into financial problems due to various causes and, therefore, require different approaches. On the one hand, a country with a sound overall economic condition may face a dire financial problem because it has been subjected to a large unanticipated external shock. In this regard, it will be unfair to impose a strict conditionality on such a country; it will only unduly delay the needed response. On the other hand, countries may run into financial problems because of their own making. The current crisis in Greece is a case in point. It runs into financial problem because the government economic mismanagement; the government budget deficit is too high relative to the size of the country's economic output. In such a case, a stricter conditionality is deemed necessary. A strict conditionality has two main purposes. First, to compel the government in question to undertake necessary corrective actions to address the root causes of the problem at hand. Second, it acts as a deterrent to minimize the likelihood of a similar problem to reappear in the future.

To achieve this, the CMIM should have a strong, credible and independent regional surveillance mechanism which should be put in place prior to the CMIM becomes operational. The surveillance body will monitor the members' economic conditions and convey its findings to respective governments.

The process of regional financial integration essentially implies opening up a country's financial market to players from neighboring economies and, at the same time, allowing local residents to access financial services available in neighboring economies. Regional financial integration provides a number of benefits to countries involved. Firstly, regional market expands the scale and opportunities for financial intermediation. One advantage of a larger market is that, other things equal, it is more cost-efficient than a smaller one. Secondly, regional market can introduce efficiency in local market by fostering competition and lower the price of financial products and services. Thirdly, regional market is more able to cope with idiosyncratic risks by allowing for greater diversification of assets and markets for individual investors (Wakeman-Linn and Wagh, 2008).

Notwithstanding all the attempts, the regional financial integration process has been advancing only slowly; regional markets remain fragmented. A study by Kim and Lee (2008) compares the degrees of real integration and financial integration in East Asia using price as well as quantity measures. The idea is in fully integrated regional real markets goods can move freely within the region. More specifically, in fully integrated markets the price should be equalized across countries (law of one price). Also, because of the interdependence through trade, one would expect to observe an increased co-movement of the countries' outputs.

Similarly, in fully integrated financial markets, traders can transact financial assets freely within the region. In particular, one would expect to observe the equalization of returns to equivalent financial assets across the region. Meanwhile, a better risk sharing resulted from the integration tends to increase co-movement of consumption across the region.

In their study, Kim and Lee find that, on the one hand, real integration has been accelerating as evidenced from increasing intra-regional trade among countries in the region. In particular, they find that real integration based on output linkages increased substantially both regionally and globally following the East Asian financial crisis. On the other hand, regional financial integration clearly lags behind. More specifically, East Asian financial markets are integrated relatively more with global markets than with each other.

In an earlier study, Eichengreen and Park (2003) ask the question as to why there has been less financial integration in Asia than in Europe. The study focuses on cross-border bank claims which are available on a bilateral basis. They observe that cross-border bank claims in Europe account for around 33.9 per cent of GDP as compared to a mere 3.5 per cent in Asia. However, they further note that cross-border bank claims are strongly increasing in per capita income. The authors therefore conclude that the difference between the two regions in cross-border bank claims is largely the result of their very different levels of economic development as well as differences in other factors such the geographical settings and languages. The authors also suggest that, since intra-regional export as percentage of GDP are only a third of what they are in Europe, Asia needs additional cross-border finance to support further intra-regional trades.

V. Summary and Policy Recommendation

It is important that East Asian economies, including the twelve Asian APEC economies, should continue to deepen their financial sector. With regard to the banking sector, while in some respects the sector has achieved significant progress yet, in other respects, further improvements are called for. In Indonesia, for instance, net interest margin, i.e., the difference between loan and deposit interest rate, has been persistently high post the East Asian crisis. At the end of 2010, the net interest margin was around 5 percent. This indicates some degree of inefficiency in the country's banking sector and Indonesia may not be alone in this regard. At the beginning of 2011 there are 122 banks in Indonesia and the sector is relatively highly concentrated with four largest banks account for around 46 percent of the country's total bank asset. It may seem paradoxical, but further consolidation in the sector may be necessary to improve its efficiency. Banking sector in other economies may require different measures but the bottom line is the same. They all need to increase their efficiency. Unless this deficiency is adequately addressed, East Asians will continue to send their savings abroad, investing them in more liquid, high quality foreign assets.

Quality gap and the relative shallowness of East Asian financial markets, argues Hannoun (2008), has led to financial intermediation is being done abroad. Indeed, the efficiency of the region's capital markets also need further enhancement. Some markets need to increase their transparency through disclosure by requiring the issuers and intermediaries offering securities to provide sufficient, accurate and timely information pertaining the company's business, finances, prospects and terms of the securities to allow investors to make informed decisions. China, for instance, also needs to gradually liberalize the capital account of the balance of payment, and develop a market-based monetary policy. The overall aim is to establish well-regulated competitive capital markets. This requires improvements of the regulatory systems in which the markets operates and of the provision of information to market participants. It also requires reasonable legal and accounting systems to be in place.

In recent years more and more foreign investors entered the region's capital markets and have become major players in some of the markets. Meanwhile there are also benefits for allowing domestic firms to have access to global capital markets. While there may be a legitimate concern that some firms may migrate to international financial centers such as New York and London and, hence reduce the liquidity of domestic markets, yet experience from other countries seem to suggest that even in highly integrated economies, such as those in Western Europe, domestic capital markets still have roles to play, not the least to provide financial services to small and medium enterprises that otherwise would be difficult to obtain such services abroad.

As noted, bond market is relatively new to many of the countries in the region. Many of the constraints that have been identified as inhibiting bond market development such the relative small size of the market, are external in nature. But there are factors that tend to discourage participation in domestic markets such as failure to adhere international accounting standard, corruption, and low bureaucratic quality as well capital control that the government can remedy. As with capital market, the presence of foreign investors is necessary for further development of the bond market. To develop their bond markets, the government in the region should focus their attention on addressing these issues. Emerging markets also tend to be relatively more volatile and may be addressed by improving macroeconomic stability. In the longer term, countries in the region may need to develop foreign exchange and derivatives markets as well as ensuring competitive pricing between alternate market segments.

References

Adams, Charles (2008), "Emerging East Asian Banking Systems Ten Years after the 1997/1998 Crisis", Working Paper Series on Regional Economic Integration No. 16, Asian Development Bank.

Aghion, Philippe, Philippe Bacchetta, Romain Ranciere and Kenneth Rogoff. 2006. "Exchange Rate Volatility and Productivity Growth: The Role of Financial Development", NBER working paper No. 12117.

Batten, Jonathan A., Warren P. Hogan and Peter G. Szilagyi (2009), "Foreign Bond Markets and Financial Market Development: International Perspectives" ADBI Working Paper Series No. 173.

Bekaert, Geert, Campbell R. Harvey, and Christian Lundblad. 2005."Does Financial Liberalization Spur Growth?"*Journal of Financial Economics*, vol. 77(1), pp. 3-55.

BIS Statistic, accessed from: http://www.bis.org/statistics/index.htm, on July 24th, 2010.

Burger, John D and Francis E. Warnock (2007), "Foreign Participation in Local Currency Bond Markets", *Review of Financial Economics* 16, pp. 291-304.

Claessens, Stijn, Daniela Klingebiel and Sergio L. Schumukler (2006), "Stock Market Development and Internalization: Do Economic Fundamentals Spur Both Similarly?," *Journal of Empirical Finance*, 13:3, pp. 316-350.

Dalla, Ismail (2005) "Deepening Capital Markets in East Asia", East Asian Finance Study, World Bank.

De la Torre, Augusto, Juan Carlos Gozzi, and Sergio L. Schmukler (2007), "Financial Development: Maturing and Emerging Policy Issues", Oxford University Press on behalf the International Bank for Reconstruction and Development.

Eichengreen, Barry and Yung Chul Park (2003) "Why Has There Been Less Financial Integration in Asia than in Europe?", *Political Economy of International Finance*, Institute of European Studies, UC Berkeley.

Eichengreen, Barry (2004), "Financial Instability", written on behalf of the Copenhagen Consensus, presented in Copenhagen on 25-28 May 2004.

Financial Structure Data, accessed from: *siteresources.worldbank.org/INTRES/Resources/**FinStructure_2008_v4**.xls*, on July 24th, 2010.

Gopalan, Sasidaran and Ramkishen S. Rajan (2009) "Financial Sector De-regulation in Emerging Asia: Focus on Foreign Bank Entry", *ISAS working paper no. 76*, Institute of South Asian Studies, National University of Singapore.

Guiso, Luigi, Paola Sapienza and Luigi Zingales (2002), "Does Local Financial Development Matter?," NBER working paper No. 8923.

Gyntelberg, Jacob, Guonan Ma and Eli Remolona (2005), "Developing corporate bond markets in Asia" Bank for International Settlements Papers No, 26.

Hannoun, Herve (2008), "Financial Deepening without Financial Excesses", speech at 43rd SEACEN Governors' Conference, Jakarta.

Henry, Peter Blair (2007), "Capital Account Liberalization: Theory, Evidance and Speculation", *Journal of Economic Literature*, Vol. XLV (December 2007), pp. 887-935.

Husain, "Evolution of Islamic Banking", Accessed from: www.nzibo.com/IB2/**Evolution**.pdf on Sept 2nd, 2010

IMF Regional Economic Outlook, Asia and Pacific, April 2008.

Kim, Soyoung and Jang-Wha Lee (2008) "Real and Financial Integration in East Asia", *working paper series on regional economic integration no. 17,* Asian Development Bank.

King, Robert and Ross Levine (1993a) "Finance, Entrepreneurship, and Growth", *Journal of Monetary Economics,* vol. 32(3), pp. 513-542.

King, Robert G, and Ross Levine (1993b) "Finance and Growth: Schumpeter Might be Right'" *Quarterly Journal of Economics*, vol. 108, pp. 713-737.

Lee, Jong-Wha (2008), "Patterns and Determinants of Cross-border Financial Asset Holding in East Asia", w*orking paper series on regional economic integration No. 13*, Asian Development Bank.

Lee, Jong-Wha and Cyn-Young Park (2008) "Global Financial Turmoil: Impact and Challenges for Asia's Financial Systems", *working paper series on regional economic integration No. 18,* Asian Development Bank.

Leung, Julia (2005) "Developing Bond Markets in Asia: Experience with ABF2", Bank for International Settlements Papers No, 26.

Love, Inessa (2001), "Financial Development and Financing Constraints: International Evidence from the Structural Investment Model", World Bank Policy Research Working Paper No. 2694.

Marks, Cindy and Walter Yao (2009), "Recent Developments in Asian Deposit Guarantee Programs", Asia Focus, Federal Reserve Bank of San Francisco, accessed from: http://frbsf.org/publications/banking/asiafocus/20 ... Insurance_Oct_08.pdf

Mohanty M.S., Gert Schnabel & Pablo Garcia-Luna (2006), "**Banks and aggregate credit: what is new?**," BIS Papers chapters, in: Bank for International Settlements (ed.), *The banking system in emerging economies: how much progress has been made?,* Volume 28, p. 11-39, Bank for International Settlements.

Mohanty, M.S. and Philip Turner (2010), "Bank and Financial Intermediation in Emerging Asia: Reforms and New Risks", *BIS working papers no. 313*, Bank of International Settlements.

Rajan, Raghuram G. and Luigi Zingales (1998), "Financial Dependence and Growth" *The American Economic Review*, Vol. 88, No. 3, pp. 559-586, American Economic Association.

Wakeman-Linn, John and Smita Wagh (2008), "Regional Financial Integration: Its Potential Contribution to Financial Sector Growth and Development in Sub-Saharan Africa", paper presented at African Finance for the 21st century, Tunis, Tunisia March 4.5, 2008, accessed from: http://www.imf.org/external/np/seminars/eng/2008/afrfin/pdf/wakemanlinn.pdf

WFE Annual Report and Statistics 2005, 2007 and 2009 edition, World Federation of Exchange, accessed from: http://www.world-exchanges.org/reports, on July 24th, 2010.

World Development Indicators, accessed from: http://databank.worldbank.org/ddp/home.do?Step=12&id=4&CNO=2, on July 24th, 2010.