Globalized Banking Sectors: Features and Policy Implications amidst Global Uncertainties

Siregar, Reza

The ASEAN+3 Macroeconomic Research Office

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Reza Siregar

The ASEAN+3 Macroeconomic Research Office (AMRO)

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Abstract

Amidst the global financial uncertainties since 2007, the East and Southeast Asian economies continued to attract a significant bulk of the global banks' loans to emerging markets, albeit at a decelerating rate. The alleged advantages of these lending are well-known. Yet the recent interruption to this spectacular rise in international bank lending during the 2007/2008 global financial crisis serves as a stark reminder that international bank lending can rapidly transmit adverse shocks from developed markets to emerging markets. The objective of this study is to identify key features and characteristics of foreign banks' activities in East and Southeast Asian economies, particularly during the post 2007 global financial crisis period, and to weigh their implications on the local economies, including policy challenges for the central banks and banking supervisors in the region.

JEL Classification: C23, F34, F36, G15 and N25

Key Words: Foreign Banks, Interconnectedness, Financial Stability, Branch, Subsidiary, Financial Crisis

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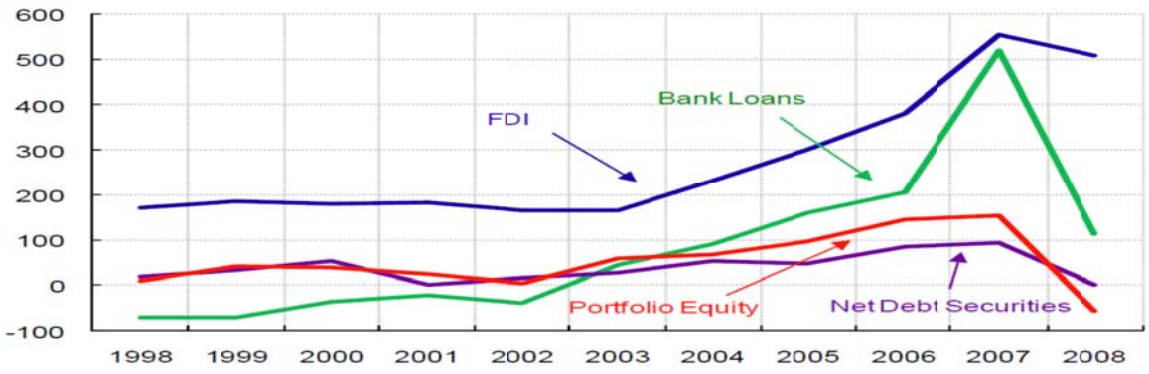
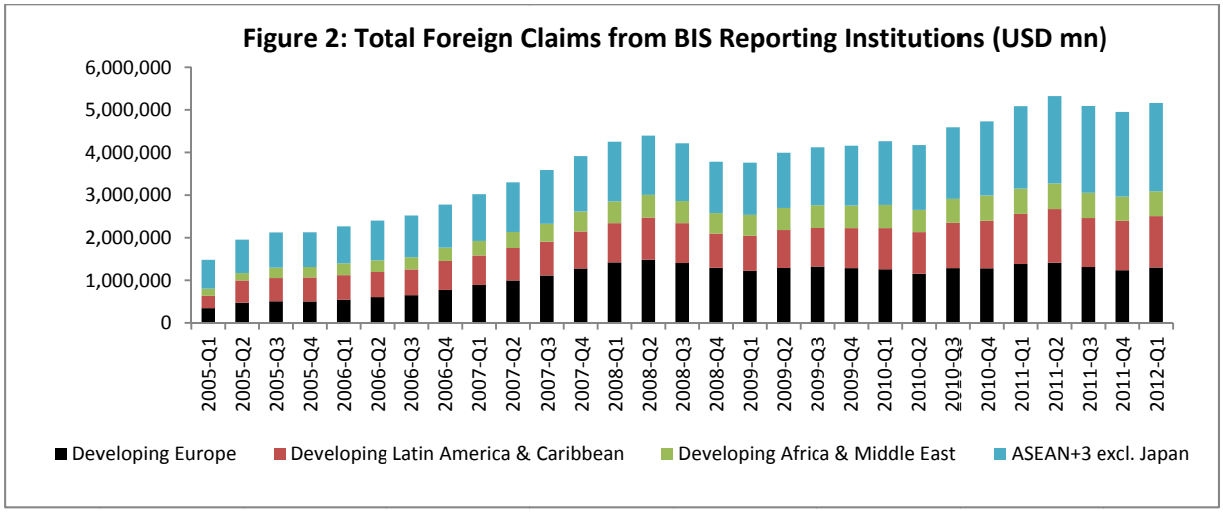
1. Introduction

One notable trademark of financial globalisation in recent years has been the remarkable rise in cross-border banking linkages, especially between emerging markets. From the first half of 2006 to the first half of 2007, total loans of the global banks to emerging markets increased from about USD200 billion to more than USD500 billion (Figure 1). Amidst the global financial uncertainties since 2007, the ASEAN+3 (excl. Japan) economies continued to attract a significant portion of the global banks' loans to emerging markets, albeit at a decelerating rate[1]. These economies in average attracted about 1.4, 1.6 and 3.2 times international bank lending reported by the emerging markets of the Europe, Latin America and Caribbean, and Africa and the Middle East during each quarter of 2010 – 2011, respectively (Figure 2).

Figure 1: Capital Flows to the Emerging markets



Source: Cetorelli and Goldberg (2009)



Source: BIS database

[1] The ASEAN+3 includes the ASEAN-10 economies, China (including Hong Kong), Japan, Korea and Singapore.

The alleged advantages of opening the local financial markets to the foreign banks are well-known. Under the presence of foreign banks, emerging markets have benefitted from efficiency gains manifested in the form of greater variety in financial services and lower prices; transfer and spill-over of knowledge and technical know-how as well as greater availability of funding most especially to credit-constrained firms and households. Foreign bank lending has also been found to be more stable during the past economic and financial crises originated from the emerging markets.

Yet the sudden interruption to this spectacular rise in international bank lending during the recent 2007/2008 global financial crisis serves as a stark reminder that international bank lending can rapidly transmit adverse shocks from developed markets to emerging markets. Compared to long-term equity flows such as foreign direct investment (FDI), cross-border bank-intermediated capital flows, being a form of short-term debt capital flow, may potentially pose more risk to the recipient economy if not properly managed. The risk exposure may be magnified if the bank loan is in foreign currency and hence subject to currency mismatch in the borrowing economies, as was reported during the Asian financial crisis in the late 1990s.

The objective of this study is to identify a number of specific features and characteristics of foreign banks' activities in East and Southeast Asian economies, and to weigh their implications on the local economies, including policy challenges to the central banks and banking supervisors of the region. While many studies have been carried out on these topics, a few have so far focused on these economies.[2] The road map of the paper is as follows. Section 2 of the paper presents a brief overview of the banking sector landscape in the ASEAN+3 economies. Next, Section 3 of the study reviews the literature to take stock of factors driving the international bank lending into various Asian economies. Section 4 dwells into core financial stability implications of the foreign bank activities on the domestic economies. Lastly, Section 5 reviews a number of topical debated policy issues, especially in the area of central banking. A brief concluding remark section (Section 6) ends the study.

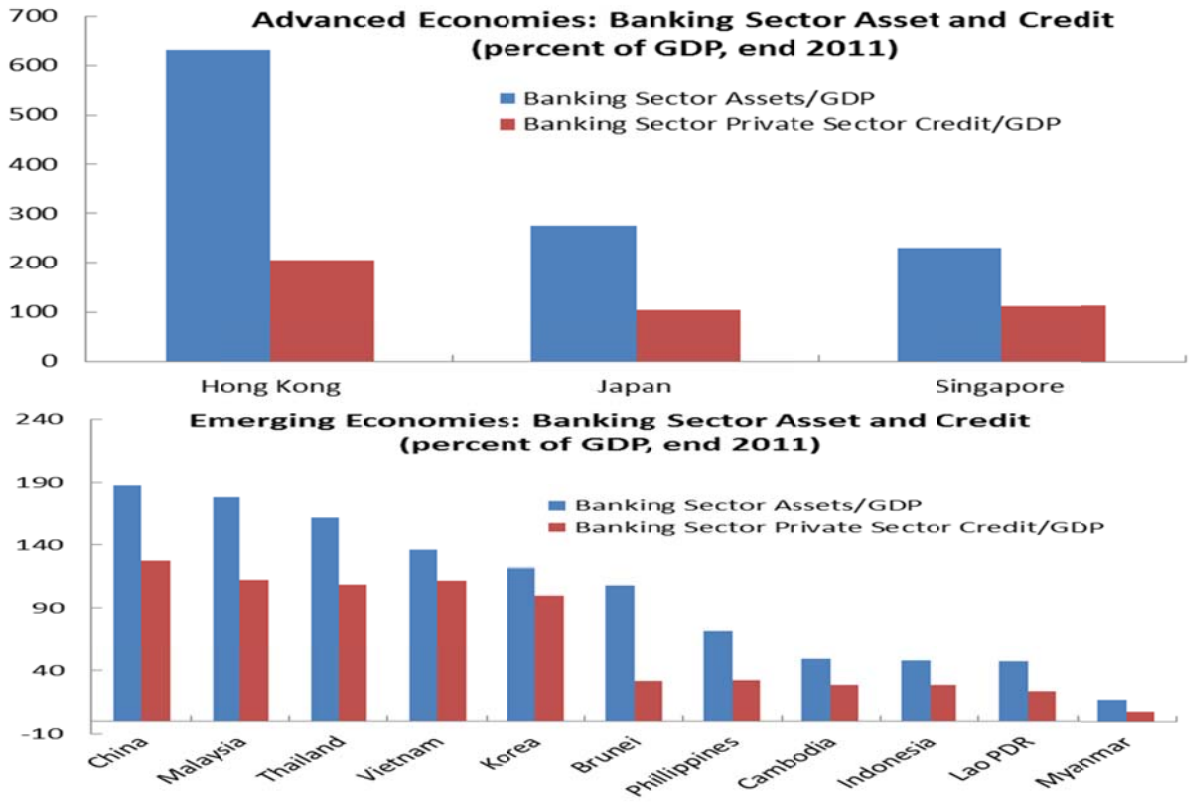
2. A Brief Overview of Banking Sector Landscape in ASEAN+3 Economies

Despite their various stages of financial development, banks still, in general, play a dominant role in the financial intermediation in most of the ASEAN+3 economies. Advanced economies in the region, namely Japan, Hong Kong and Singapore exhibit the highest level of banking sector asset in terms of GDP at more than 200 percent (Figure 3). For

[2] Among the recent works on the global banking and implications on the East and Southeast Asian economies are Siregar and Choy (2010) and Pontines and Siregar (2012).

international financial centres such as Hong Kong and Singapore, the oversized banking sector partly reflects a large amount of offshore financial activities. In general, emerging economies project a mixed picture in terms of the banking sector development. Some fast growing economies in the ASEAN+3 region have built fairly large banking sectors, and relied heavily on bank credit to channel savings to investments. These include China, Korea, Malaysia, Thailand and Vietnam, which all have banking sector assets and credit to private sector around or above 100 percent of GDP. Yet, banking sector is still modest in other emerging economies, such as Brunei, Cambodia, Indonesia, Lao PDR, Myanmar and Philippines, with average banking sector asset of 56.7 percent to GDP and bank credit to private sector of 25.2 percent to GDP.

Figure 3: Key Stylized Facts of the ASEAN+3 Banking Sectors



Source: CEIC database and Annual Reports of the Central Banks

Foreign banks are dominant in a few ASEAN+3 economies, but their participations remain modest in others. With the exception of Myanmar, foreign banks are present in every other economy in the ASEAN+3 region[3]. Their presence is large in some non-financial centre countries, such as Brunei and Cambodia, where they outnumber the local

[3] This is the general situation as of the end 2011. The lift of sanctions on Myanmar since early 2012 would allow foreign banks to enter Myanmar.

competitors. Foreign banks represent an important share in a few other economies, such as Malaysia and Korea, where they account for around 20 percent of the market. For the rest of the non-financial centre economies, the overall foreign banks' presence is relatively modest, with usually less than 15 percent of the total assets, and their share in deposit and loans could be even lower. For the largest economies in the region (China and Japan), foreign banks remain small compared to their domestic counterparts at lower than 4 percent of the total banking sector. Foreign banks are usually competing in the same business areas as the domestic banks, although depending on the country they are subject to different levels of restrictions regarding ownership structure and range of business.

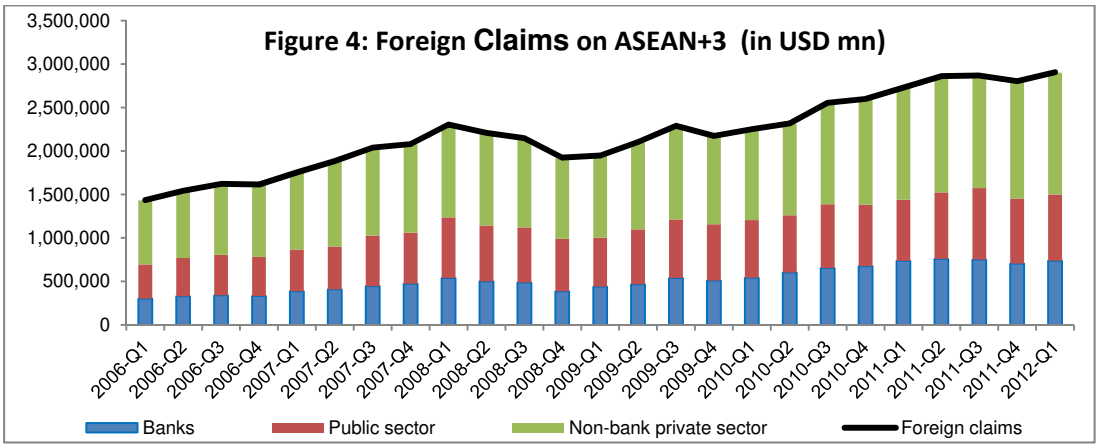
Major foreign banks in the region have diversified origins and lend to all segments of the markets. Some large global banks, such as Citi Group, Bank of America, JP Morgan, Mitsubishi UFJ, Mizuho, HSBC, Standard Chartered, Deutsche Bank, Royal Bank of Scotland, BNP Paribas, ANZ, etc., all have representations in the region. Regional banks have also become major players in the region, such as CIMB, DBS, OCBC, UOB, Bank of China, Bangkok Bank, Maybank, etc. As in other emerging markets of the world, the foreign bank's presence in the region is either in the form of subsidiary or branch (Table 1). With the exception of Malaysia, most of the ASEAN+3 economies authorize the establishment of both subsidiary and branch in their territories. Between 2010 and 2011, the non-bank private sector has been the largest recipient of the global bank lending to the region, absorbing in average around 46.5 percent of total lending, followed by public (27.6 percent) and banking sectors (25.7 percent) (Figure 4).

Table 1: Status of Selected Foreign Banks in ASEAN+3 Economies

Malaysia	
HSBC Bank Malaysia Berhad	Subsidiary
Standard Chartered Bank Malaysia Berhad	Subsidiary
Deutsche Bank (Malaysia) Bhd.	Subsidiary
Bank of Tokyo-Mitsubishi UFJ (Malaysia) Berhad	Subsidiary
Citibank Malaysia (L) Ltd	Subsidiary
Indonesia	
PT Bank ANZ Indonesia	Subsidiary
PT Bank Mizuho Indonesia	Subsidiary
Bank BNP Paribas Indonesia PT	Subsidiary
Citibank	Branch
Deutsche Bank	Branch
HSBC	Branch
Standard Chartered	Branch

Korea	
Standard Chartered Bank Korea Limited	Subsidiary
Citibank Korea Inc.	Subsidiary
Philippines	
Hongkong and Shanghai Banking Corp Ltd	Branch
Bank of Tokyo - Mitsubishi UFJ Ltd	Branch
Citibank Savings Inc	Subsidiary
United Overseas Bank Philippines	Subsidiary
Thailand	
United Overseas Bank (Thai) PCL	Subsidiary
Standard Chartered Bank (Thai) Public Company Limited	Subsidiary
CIMB Thai Bank Public Company Limited	Subsidiary

Source: Annual reports and Bank-scope database

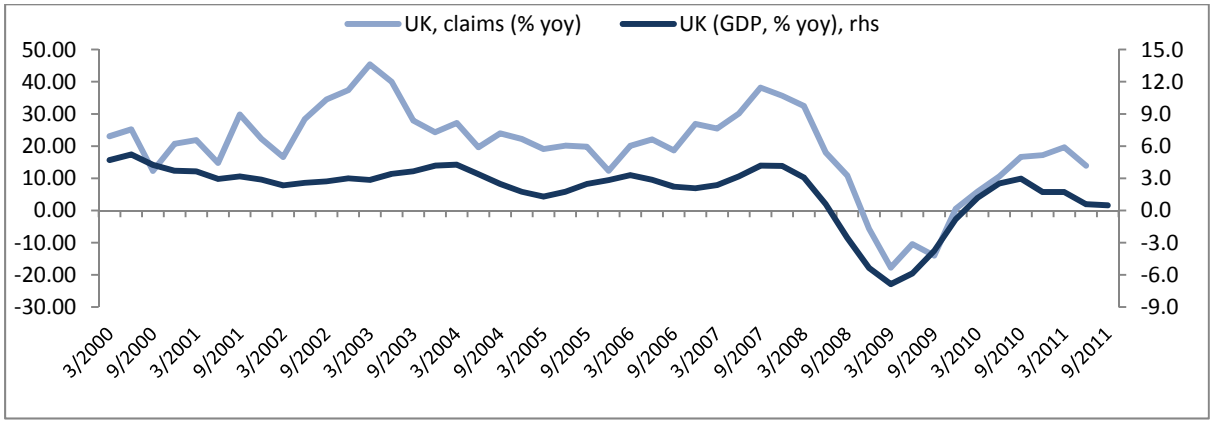


Source: BIS database

3. Determinant Factors of Global Bank Lending: A Brief Overview

Studies have been carried out to ascertain push and pull factors behind the global bank lending outside of their home countries. Only a few have however focused on the Asian emerging markets. In their recent study, Pontines and Siregar (2011) highlighted several fundamental determinant factors of bank lending from three major advanced economies, namely Japan, the UK and the US to a number of Asian economies, such as Indonesia, Korea, Malaysia, and the Philippines. To start, the real GDP growth rates of the home (Japan, UK and US) and host Asian economies have, indeed, been an important factor. In particular, the pro-cyclicality of these flows, i.e., better (worse) economic conditions in the host (home) economies leads to greater (less) bank flows into some of these Asian economies. This was evident in late 2008 and early 2009, following the collapse of the Lehman-Brothers, as demonstrated by the UK banks' lending to the world (Figure 5).

Figure 5:
Pro-cyclicality of International Lending of UK Banks and GDP Growth Rate



Source: BIS database and AMRO Staff Calculation

The short-term uncertainties and volatilities of the global economies, captured by the widely used S&P 100 Volatility Index of the Chicago Board Options Exchange for instance, are found to have adverse impacts on the flows of international bank lending into the East Asian region. This finding strongly suggests that global/external factors have a role to play in determining bank flows from developed to emerging economies. The balance of the evidence also appears to suggest that greater exposure on the part of major foreign banks in these Asian economies fulfil a stabilizing or crisis-mitigating role of international bank lending during periods of financial distress such as that of the 1997 East Asian financial crisis. However, the opposite case is found during the recent subprime crisis. In short, the impacts and roles of international bank lending in the local economy can be a double-edged sword. In good times, the flows contribute positively to the financing of economic activities. However, during times of uncertainties in the local and external markets, international bank lending can amplify the severity of volatilities and hence the vulnerability risks of the local economy.

Another determinant of the lending of the international banks is bilateral trade activities between home and host economies. This is particularly evident for instance in the case of early expansion of the Japanese banks to the East Asian markets, as found in Siregar and Choy (2010). The same study also found political stability, legal and bureaucratic quality have become increasingly important considerations for the expansion of global bank lending to East Asia following the 1997 East Asian crisis. Distance plays a role as well in various regions of the world. In particular, multinational banks place priority in expanding their activities into their close neighbours in the early stage cross-border endeavours. Lastly, the strength and soundness of these international banks' balance sheets have also been found to influence their capacities and willingness to loan. This

aspect of balance sheet particularly focuses on asset/capital size, solvency, liquidity and profitability.

4. Financial Stability Implications

Financial stability is receiving increased attention in both policy making and academic settings, as concerted efforts are made to draw lessons from the recent global financial crisis. The challenge of incorporating the lessons of the crisis is however increasingly more difficult, in part, because there is no one clear definition of financial stability (and instability). From a more focused point of view shared by many central banks, including those in ASEAN+3 economies, financial stability describes the condition where the financial intermediation process functions smoothly and there is confidence in the operation of key financial institutions and markets within the economy. Others take a slightly broader perspective of financial stability that encompasses monetary stability, asset price stability and growth stability (Foot (2003)). Financial stability should reflect the ability of the financial system to consistently supply the credit intermediation and payment services that are needed in the real economy if it is to continue on its growth (Rosengren (2011)). The next sub-sections examine a number of frequently debated financial stability consequences of foreign bank's activities on the host economies, particularly the ASEAN+3 economies.

4.1 Lending Activities

4.1.1 Global Banks

The recent global financial crisis provides a rather unique opportunity to assess the lending performance of the global banks during the period in which financial turbulence originated from the developed economies, home of the major banks of the world. In the past, global bank lending had been demonstrably more resilient and better prepared to handle shocks originating from emerging markets. The emerging trends from the 2007/2008 global financial crisis and the European sovereign debt crisis painted a contrasting picture. Claessens and van Horen (2012) study over 3615 banks in 118 countries (of which 1198 foreign banks) covering the period of 2005-2009. They find conclusive evidence that foreign banks reduced lending more compared to their domestic counterparts in 2009. A quick glimpse of a number of ASEAN+3 economies supports the findings of Claessens and van Horen (2012). The foreign banks' gross lending in the Philippines for instance grew by 1.1 percent in 2009 and -10 percent in 2011, significantly lower than 4.6 percent in 2009 and 18.8 percent in 2011 for the whole banking system. Major European branches and subsidiaries in selected ASEAN economies saw their lending to contract and to become

more volatile during the period of 2008-2011 (Table 2). Nonetheless, the major local banks continued to support their lending growths during those turbulent years.[4]

Table 2:
The Loan Growth of Selected Foreign and Local Banks in ASEAN+3 Economies

(in %)	2008	2009	2010	2011
Indonesia				
Bank Mandiri (Persero) Tbk	25.96	13.78	24	27.69
Bank Rakyat Indonesia (Persero) Tbk	41.36	29.18	21.62	16.35
Bank BNP Paribas Indonesia PT	58.17	-91.55	226.37	n.a.
Malaysia				
Malayan Banking Berhad - Maybank	16.04	12.97	10.29	22.47
CIMB Bank Berhad	17.8	17.18	9.15	11.87
HSBC Bank Malaysia Berhad	14.39	-3.3	18.74	14.68
Deutsche Bank (Malaysia) Bhd	35.52	-18.84	-4.31	8.83
Citibank (Malaysia) Bhd	-2.95	-6.44	4.51	4.29
Thailand				
Bangkok Bank Public Company Limited	13.34	-3.31	9.89	17.14
Kasikornbank Public Company Limited	18.56	4.3	14.19	12.48
Standard Chartered Bank (Thai) PCL	13.42	-7.29	18.51	2.74

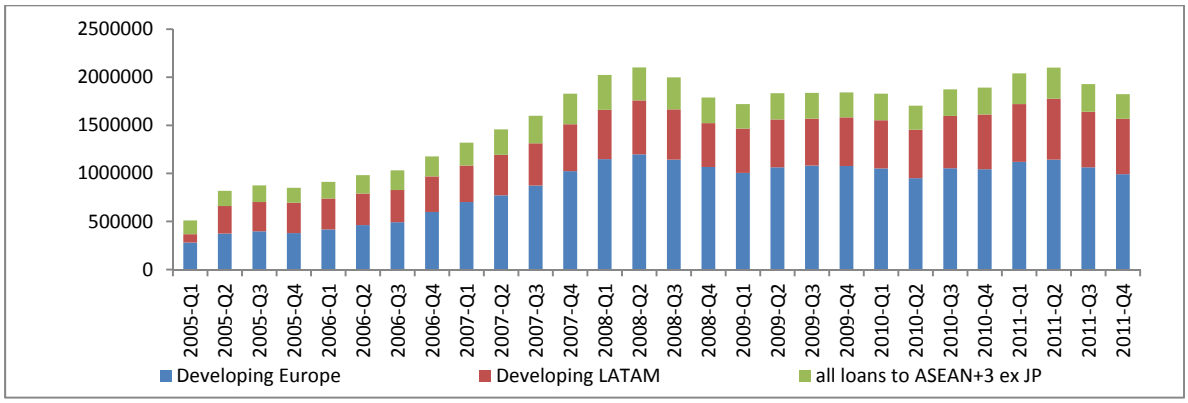
Source: Bankscope database and AMRO Staff Calculation

Due to the need to shore-up capital and mitigate funding strains, European banks have been under heavy pressure to promptly trim down their balance-sheets. In its report, the IMF projected banks in the European Union would undergo a USD2.6 trillion deleveraging in 2013 and 2014 (WEO (2012)). Moreover, massive bank bailouts using tax payer funds during the 2008 global financial crisis have pressured banks to focus more on domestic lending activities and prune back on activities abroad. Consequently, economies that were highly exposed to the cross-border lending activities of these Eurozone banks have had to bear the consequences of recent deleveraging efforts. While the ASEAN+3 economies (excluding Japan) attracted only around 15 percent of the total foreign claims of the Eurozone banks to the emerging markets of the Europe, Latin American and ASEAN+3 (Figure 6), these economies endured the steepest rates of drops of the Eurozone loans during the final two quarters of last year. The total foreign claims of the Eurozone banks to the ASEAN+3 economies contracted quarter on quarter by an average of 10.5 percent during the second half of 2011, compared to about 4.5 percent for Latin American and Caribbean (LATAM) economies and 6.8 percent for the developing European economies.

[4] Given the limited publically available balance sheet data on individual major bank, this assessment should only be an indicative and may not be conclusive.

However in the nominal terms, the developing European economies suffered the sharpest pull-outs, a total deleveraging of over USD150 billion during the last 6 months of last year compared to about USD59.4 billion for the LATAM and USD 65.6 billion for the ASEAN+3 economies. The total loan to ASEAN+3 (excl. Japan) for the first quarter 2012 reported a positive rebound of around 7 percent from the last quarter of 2011, but still 11 percent less than the inflow recorded a year earlier.

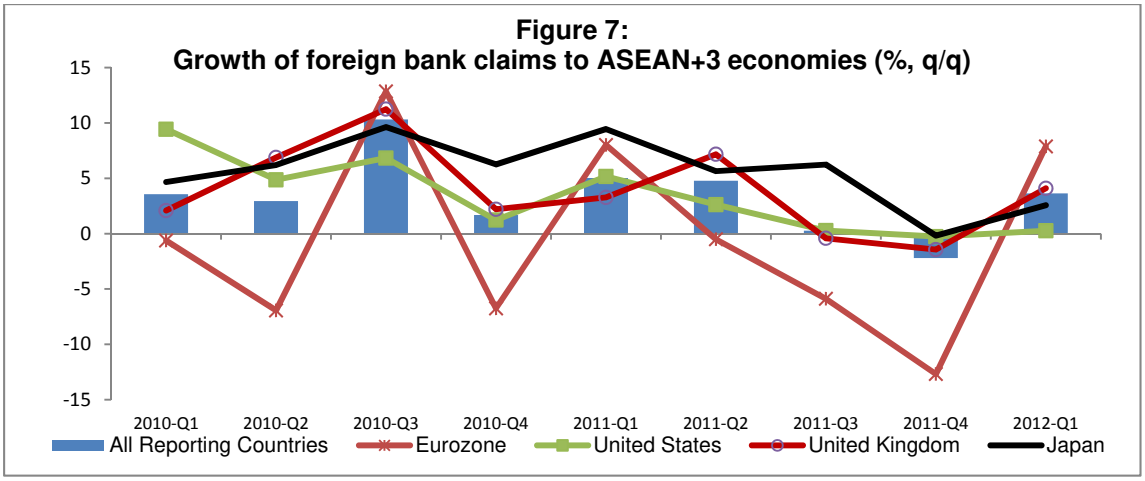
Figure 6: Total Foreign Claims of the Eurozone Banks (in million USD)



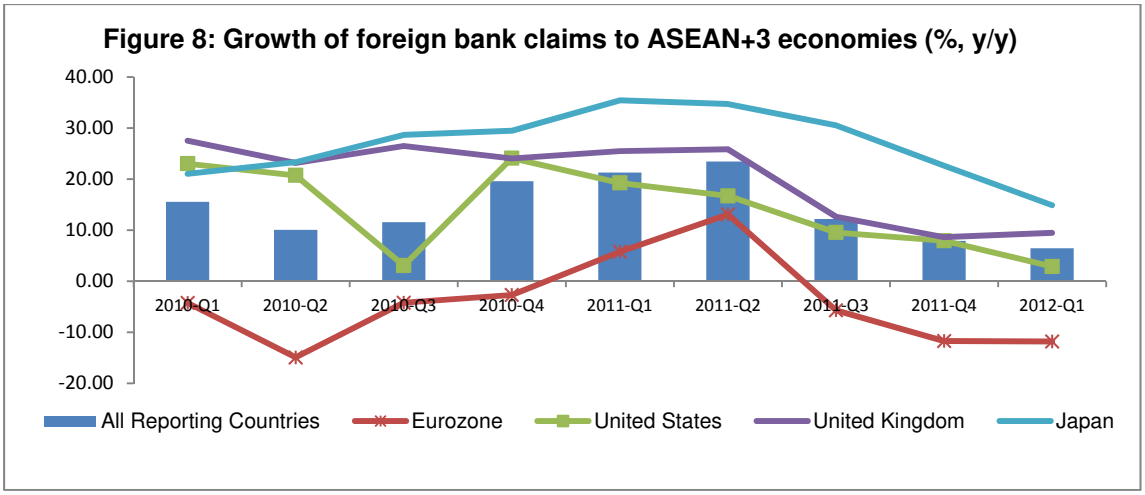
Note: LATAM = Latin American and Caribbean economies. The Eurozone banks include banks from major creditor economies (Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Portugal, and Spain). Source: BIS database

The slowdowns in the inflows of claims to ASEAN+3 were evident across international banks across the globe but at significantly diverse rates, with non-Eurozone banks performing better (Figures 7 and 8). Total foreign claims of the Eurozone, US, UK and Japan contracted on a quarterly basis during the second half of last 2011, particularly in the last quarter of 2011[5]. As expected, deleveraging by Eurozone banks has been most substantial, at an average quarter-on-quarter rate of -7.3 percent since the second quarter of 2011. This contractionary trend has continued to gain momentum from -1 percent in the second quarter 2011, to -7 percent in the third quarter 2011 and -14 percent in the fourth quarter 2011. In comparison, total foreign claims on ASEAN+3 of all BIS reporting banks only began to contract since the third quarter of 2011 at an average quarter-on-quarter rate of 1.38 percent. During the same period, the US and the Japanese bank lending remained relatively robust. Japanese banks in particular continued to lend strongly to ASEAN+3 economies, with the quarter-on-quarter lending growth averaging at 5.44 percent in 2011 with some moderation observed in the fourth quarter of 2011.

[5] As of June 2012, the latest available BIS data on consolidated bank lending is for the fourth quarter of 2011.



Source: BIS database



Source: BIS database

Furthermore, the largest recipients of the global bank loans endured the sharpest sudden reversals of the flows. The plus-3 economies (China, Korea and Japan) and the financial markets of the region (Hong Kong and Singapore) attracted on averages of nearly 60 percent and 30 percent of total foreign claims to the ASEAN+3 economies in 2011, respectively (Table 3). Yet, the same two groups of economies endured the sharpest slowdowns of international bank lending, especially from the Eurozone banks (Figure 9). The plus-3 economies reported a quarter-on-quarter pull-out of foreign claims of the Eurozone banks on the average of 11 percent per quarter within the last two quarters of 2011, compared to 9.9 percent for Hong Kong and Singapore, 8.5 percent for ASEAN-5 (Indonesia, Malaysia, Philippines, Thailand and Vietnam) and 6 percent for BCLM (Brunei, Cambodia, Laos and Myanmar). The decline in UK bank lending to the region follows a similar trend. It is interesting to note however that the lending of the Japanese and the US

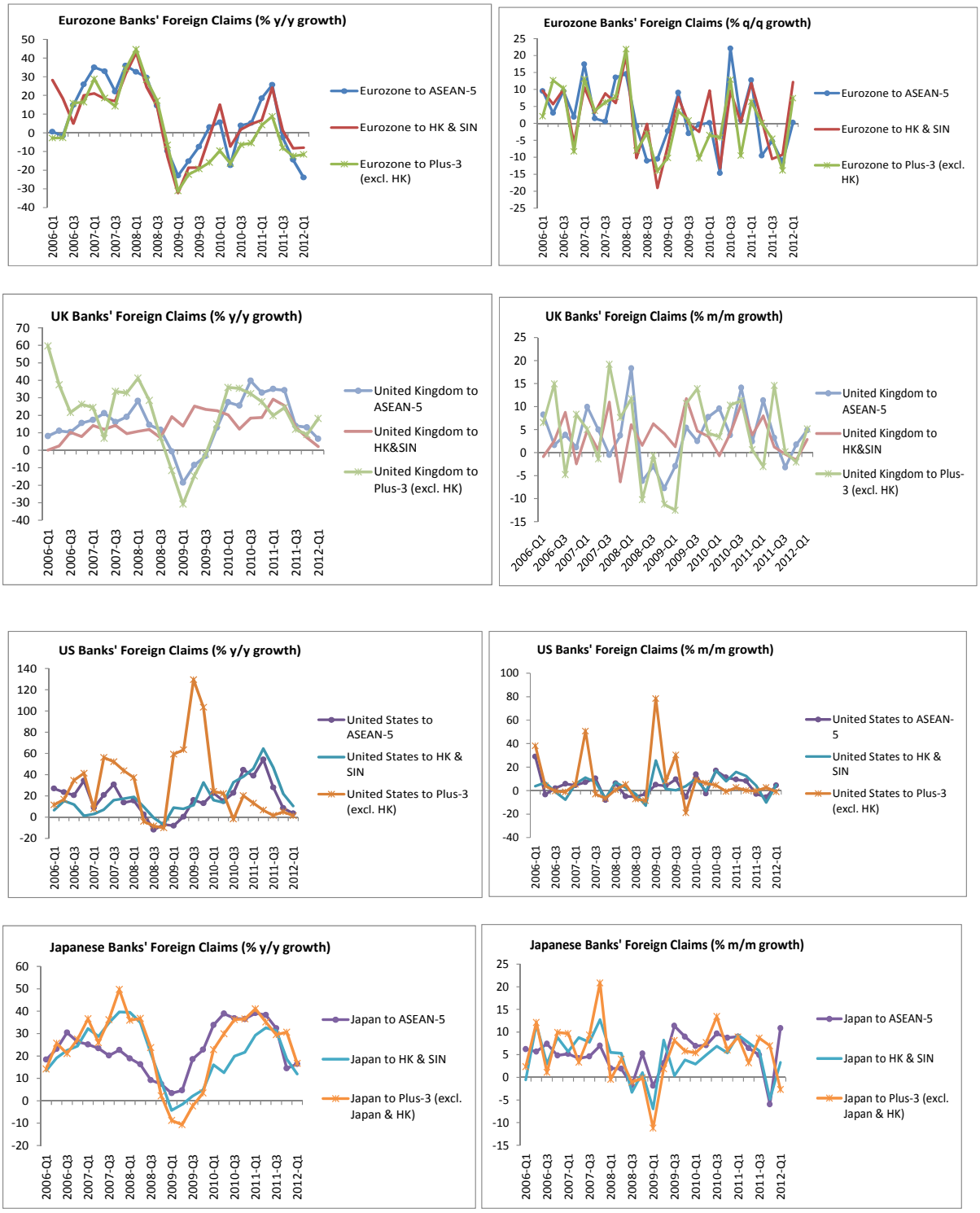
banks to the plus-3 economies continued to be robust in the second half of 2011. In particular the Japanese banks have continued to expand their foreign lending to China and Korea at an average quarter-on-quarter rate of 7.1 percent during the final two quarters of last year.

Table 3: Foreign Claims Shares

Foreign claims on ASEAN+3 countries (USD bn, ultimate risk basis)										
	2007	2008	2009	2010	2011-Q1	2011-Q2	2011-Q3	2011-Q4	2012-Q1	2012-Q1 (% share)
Total ASEAN+3	2,080.55	1,922.99	2,172.81	2,598.38	2,729.00	2,859.45	2,867.10	2,803.76	2,905.66	100.000
Japan	778.45	714.06	769.48	857.59	793.79	808.94	832.28	815.79	833.27	28.677
Hong Kong SAR	331.70	342.80	397.79	481.79	519.77	539.62	547.60	532.46	541.50	18.636
China	214.07	175.81	236.77	356.37	425.11	478.14	487.93	474.29	497.80	17.132
South Korea	331.21	272.94	303.10	318.43	338.00	348.38	318.48	318.10	330.69	11.381
Singapore	191.46	187.74	212.20	261.58	292.39	310.30	312.25	298.71	318.02	10.945
Malaysia	104.25	98.81	103.55	125.42	139.37	145.48	140.16	144.33	151.91	5.228
Indonesia	46.72	47.86	54.52	74.41	84.06	88.45	87.78	88.29	89.94	3.095
Thailand	44.89	46.52	56.72	73.42	82.69	84.37	83.49	75.69	85.36	2.938
Philippines	23.32	21.37	23.53	30.34	32.44	32.67	34.04	32.04	31.94	1.099
Vietnam	11.49	11.48	12.45	15.81	16.90	18.40	18.42	18.99	20.13	0.693
Brunei	1.71	2.11	2.03	2.40	3.71	3.67	3.89	4.08	4.01	0.138
Myanmar	0.85	1.00	0.23	0.23	0.24	0.24	0.24	0.34	0.43	0.015
Laos	0.37	0.36	0.29	0.33	0.35	0.37	0.34	0.36	0.35	0.012
Cambodia	0.07	0.13	0.17	0.25	0.19	0.43	0.21	0.29	0.32	0.011

Source: BIS database

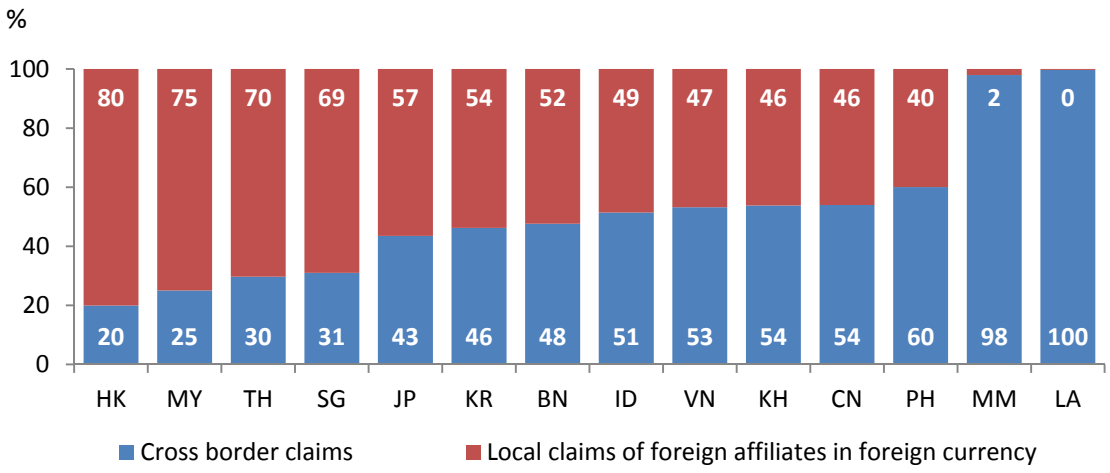
Figure 9: Growths of Foreign Claims to ASEAN+3 Economies



Source: BIS database and AMRO Staff Calculation

The high exposure to ASEAN+3 economies through cross-border lending partially explains relatively large cutbacks in the international bank lending to the region.[6] Further investigation into the composition of total foreign claims of global banks into the ASEAN+3 region shows that a significant share of total claims (around 40 percent) has been in the form of cross-border lending (Figure 10). This is in sharp contrast to the situation in Latin American countries where local lending of international banks proportionally larger than their cross-border lending. For Indonesia, China, Philippines and the CLMV economies (Cambodia, Laos, Myanmar and Vietnam), the share of cross-border lending out of overall foreign claims are well above 50 percent. This is considerably higher than the 17 to 27 percent share of cross-border lending activities for Eurozone claims in major Latin American economies, such as Argentina, Brazil and Mexico. As demonstrated in selected ASEAN+3 economies' experiences (Figure 11), the growths of cross-border lending have largely been more volatile and often experienced sudden and sharper withdrawals than the local lending. At the height of the Lehman Brothers crisis, the total cross-border lending to ASEAN+3 region plummeted by more than -15 percent in the second quarter of 2009 from the same quarter a year earlier, while the local claims of these banks in the region continued to expand robustly at above 33 percent for the same period.

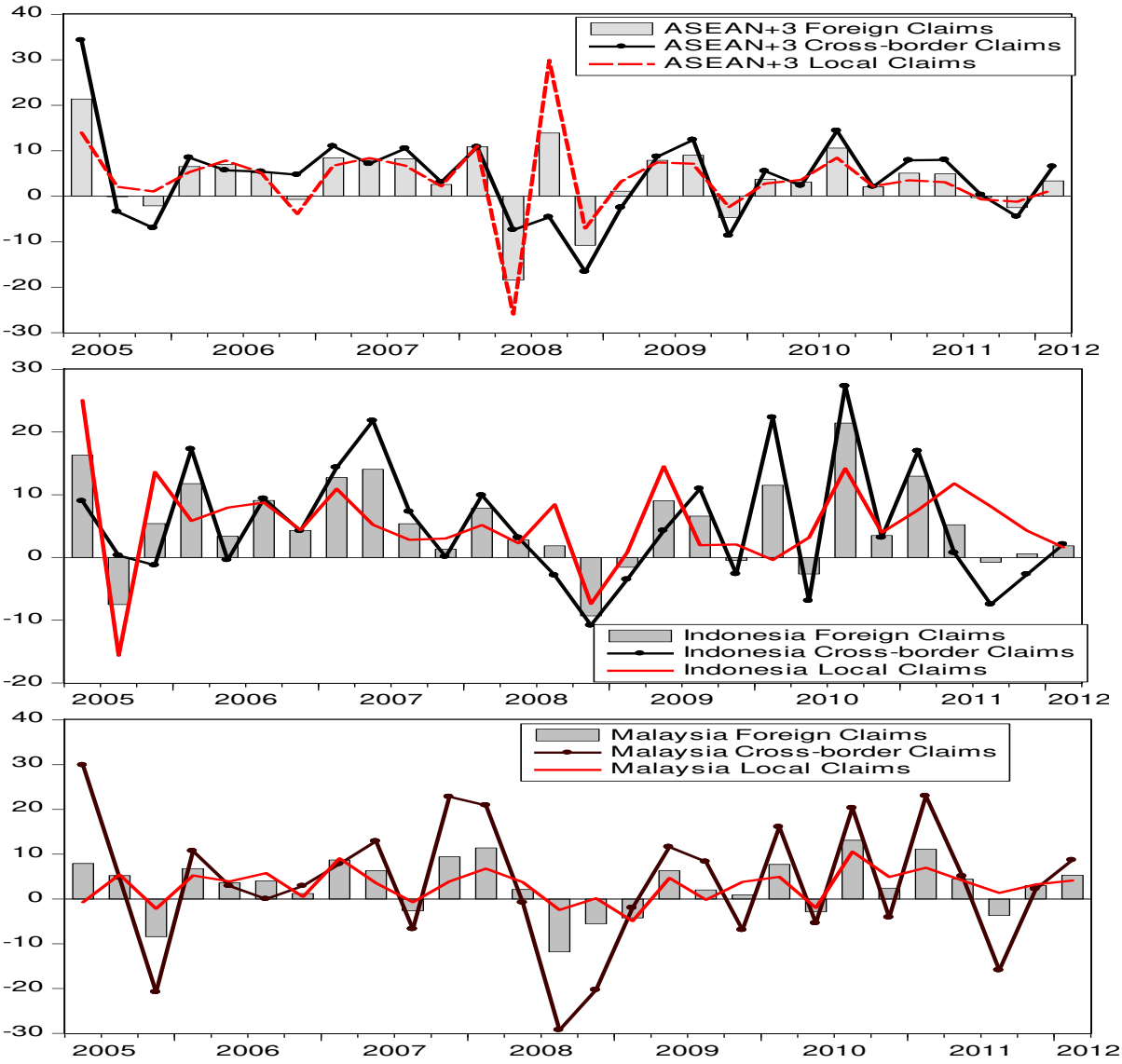
Figure 10: Shares of Cross Border Claims and Local Claims at the End 2011



Source: BIS database and AMRO Staff Calculation

[6] Total foreign claims of global banks can be decomposed into two parts. The first part is the local lending component which is lending carried out by local subsidiaries or branches of a particular global bank, using funding generated from the local economy. The second component is the cross-border lending which are sourced from the external network or head-quarters of the bank.

Figure 11: Quarterly Growths of Different Forms of Claims

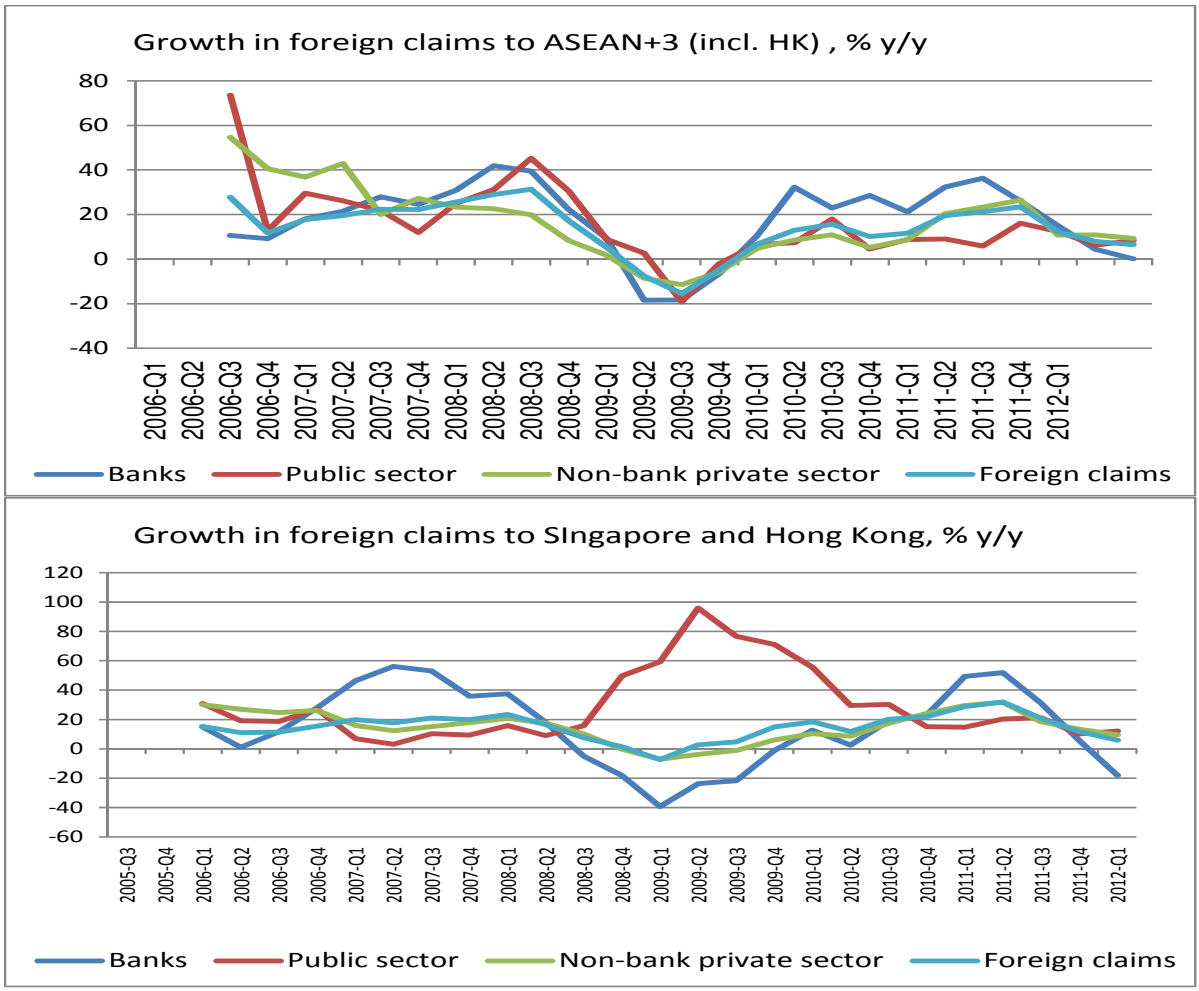


Note: Source: BIS database and Staff Calculation

Lending of the international banks targets three domestic sectors: public, non-bank private and banking sector. Among the various domestic sectors, the banking sector of the ASEAN+3 economies suffered the worst cuts in the lending of the foreign banks in 2011 and early 2012. From third quarter of 2011 to first quarter of 2012, foreign claims to the banking sector grew in average of 6.5 percent, the slowest compare to 8.9 percent of the public sector and 10.3 percent of the non-bank private sector (Figure 12). In particular, the financial centres of the ASEAN+3 economies, Hong Kong and Singapore, experienced the most noticeable contractions in the claims to the banking sector. During the first quarter of 2012, foreign claims to the banking sector of Hong Kong and Singapore declined by 17.9 percent from a year earlier, in contrast to a positive growth of 12.1 percent for the public sector and

9.6 percent for the non-bank private sector. It is also noteworthy that among the three sectors, the banking sector of the ASEAN+3 had also suffered the worst sudden reversal of capital flows during the height of the 2008 Lehman Brothers collapse. The strength of the lending to the public sector, on the other hand, reflected the attractiveness of the sovereign debts of the emerging markets in the region.

Figure 12: Allocations of International Bank Lending



Source: BIS database and AMRO Staff Calculation

4.1.2 Regional Banks

While the focus of this study is on the implication of the global major banks' activities in the ASEAN+3 economies, it is however important to recognize the increasing role of the ASEAN+3 banks regionally and globally. The ASEAN+3 economies had turned into a net lender to the world since 2010, with an average net lending of around USD 465 billion per quarter as reported in the first quarter of 2012 (Table 4). With the exception of BCLM economies, the rest of the ASEAN+3 were net lender in 2011. According to the BIS

database, the international claims of banks from five ASEAN+3 economies (Japan, Singapore, Hongkong, Korea and Malaysia) reached around USD4.05 trillion in the second quarter of 2011 or around 66 percent increase from the number reported in the first quarter of 2006 (Figure 13). The Japanese banks' loans continued to play a big role, making up slightly over 50 percent of the total international claims of this group of banks. From the second half of 2010 to first half 2011, the quarterly average of the year-on-year growths of the international claims from these countries' banks is reported to be above 17 percent.[7] Given their increasingly important presence, regionally and globally, understanding of the networks and interconnectedness of these ASEAN+3 banks should be greatly enhanced to assess potential challenges or concerns of their operations, particularly on the local and regional economies. With the exception of the Japanese banks, data on the cross-border lending activities of the regional banks are however publically inaccessible.

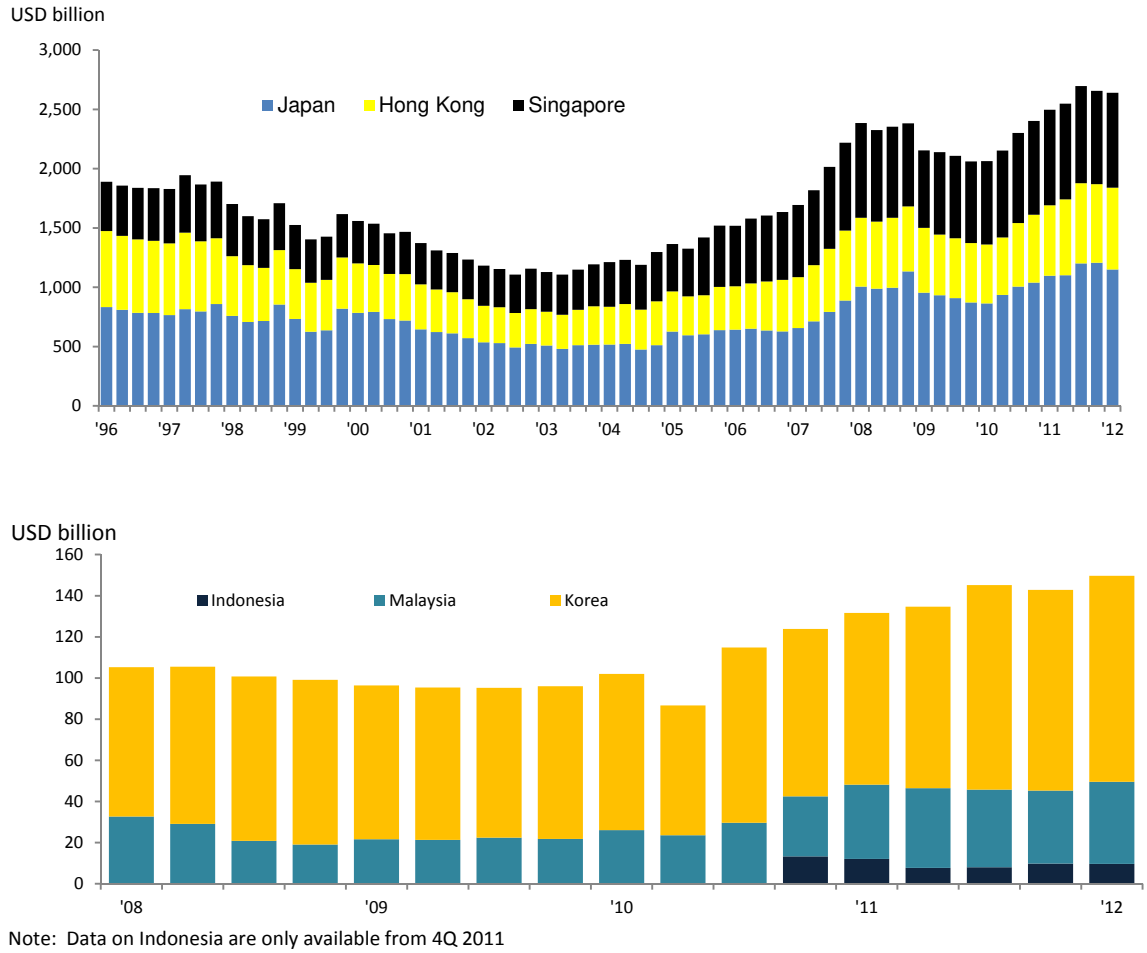
Table 4: Net Lending to the World

USD billion	**2011:q1**	**2011:q2**	**2011:q3**	**2011:q4**	**2012:q1**
ASEAN+3	411	493	561	396	466
ASEAN-5	75	82	82	70	72
Plus-3	321	352	388	298	376
BCLM	-4	-5	-4	-5	-5
Hong Kong and Singapore	19	64	95	33	22

Note: ASEAN-5 includes Indonesia, Malaysia, Philippines, Thailand and Vietnam. Plus-3 includes China, Korea and Japan. BCLM includes Brunei, Cambodia, Laos and Myanmar.
Source: BIS database

[7] The banks from Malaysia have been the most aggressive one with quarterly average of year on year growth over 30 percent.

Figure 13: Outstanding Claims of Banks from Selected ASEAN+3 Economies



Note: Data on Indonesia are only available from 4Q 2011

Source: BIS database

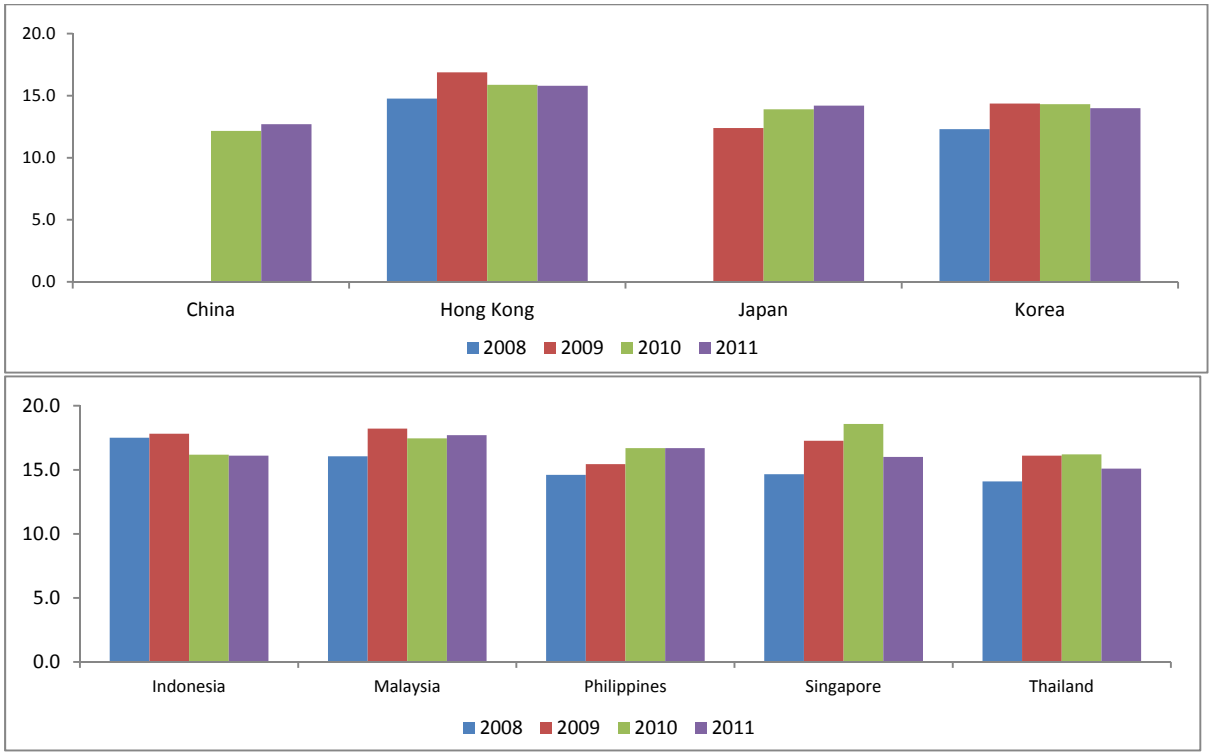
4.2 Strength of Bank Balance Sheet

4.2.1 Capital Adequacy Level

Banks in the region have generally held adequate capital. Even during the peak of the crisis, banks are able to maintain a sound level of capital, usually above 12 percent. Most banks, however, did experience a slight drop in capital adequacy level in 2010 or 2011, except for a few, such as those in Japan and Philippines, who have in general been able to slightly increase their capital adequacy recently (Figure 14). In addition, foreign banks in most parts of the region have maintained a higher capital adequacy level than their local counterparts (Table 5). For example in Philippines, the capital adequacy level of foreign bank branches and subsidiaries has been at least 5 percent higher than the national average. The situation is a little different in regional financial centres, where foreign banks did not always hold a capital adequacy ratio above the local banks'. Furthermore, foreign banks' capital positions are affected differently by the current round of crisis. Banks with parents in Europe or US, such as HSBC and Citibank, have in general seen a larger

magnitude of drop of capital in some economies (Indonesia, Hong Kong for example) during the crisis than other foreign banks in the ASEAN+3 region. This is partly explained by the deleveraging process unfolding in the advanced economies.

Figure 14: Regulatory Capital to Risk-Weighted Assets



Source: IMF-Financial Stability Indicator Database

Table 5:
Capital Adequacy Ratio of Selected Banks in Selected ASEAN+3 Economies

Capital Adequacy Ratio (in %)	Tier 1 Ratio						Total Capital Adequacy Ratio					
	2011	2010	2009	2008	2007	2006	2011	2010	2009	2008	2007	2006
Malaysia												
Malayan Banking Berhad - Maybank	17.5	13.4	14.3	11.5	9.8	9.7	13.4	12.5	14.3	12.7	14.1	12.6
HSBC Bank Malaysia Berhad	9.9	10.2	11.1	9.2	10.0	n.a.	13.6	14.4	15.8	13.4	15.1	n.a.
Standard Chartered Bank Malaysia Berhad	11.3	9.2	9.6	8.6	8.0	9.6	13.5	13.4	15.0	13.8	13.7	13.2
Deutsche Bank (Malaysia) Bhd.	14.4	16.9	15.0	14.5	n.a.	14.6	14.5	17.2	15.3	14.9	n.a.	15.0
Bank of Tokyo-Mitsubishi UFJ (Malaysia) Berhad	22.2	22.1	26.5	23.8	25.8	31.6	23.2	23.1	27.8	25.0	27.1	33.2
Citibank Malaysia (L) Ltd	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Indonesia												
Bank Mandiri (Persero) Tbk	12.4	10.1	12.4	12.8	17.0	19.1	15.0	13.4	15.4	15.7	20.8	24.6
PT Bank ANZ Indonesia	12.0	11.2	13.0	15.0	16.8	16.9	13.0	12.3	14.1	16.3	18.1	17.6
PT Bank Mizuho Indonesia	16.1	18.8	24.0	n.a.	n.a.	n.a.	17.3	20.0	25.1	19.7	26.6	25.3
Bank BNP Paribas Indonesia PT	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	56.9	76.9	70.9
Citibank (Capital Adequacy Ratio - with credit and market risk)							25.3	26.8	30.5	24.1	20.8	
Deutsche Bank (Capital Adequacy Ratio)							29.8	33.3	47.0	46.9	n.a.	
HSBC (Capital Adequacy Ratio)							17.6	13.2	19.1	12.0	14.6	
Standard Chartered (Capital Adequacy Ratio)							14.1	14.4	14.6	13.3	13.3	
Korea												
Kookmin Bank	10.3	n.a.	n.a.	n.a.	n.a.	n.a.	13.6	n.a.	n.a.	n.a.	n.a.	n.a.
Standard Chartered Bank Korea Limited	11.6	n.a.	n.a.	n.a.	n.a.	n.a.	15.6	n.a.	n.a.	n.a.	n.a.	n.a.
Citibank Korea Inc.	13.4	14.3	n.a.	n.a.	n.a.	n.a.	16.4	17.2	n.a.	n.a.	n.a.	n.a.
Philippines												
Philippines banking system: Capital Adequacy Ratio							16.3	16.0	14.9	14.7	14.7	
Foreign bank branches and subsidiaries: Capital Adequacy Ratio							21.6	21.9	19.4	22.5	21.3	
Existing foreign bank branches: Capital Adequacy Ratio							18.5	18.8	12.8	18.4	17.1	
New foreign bank branches: Capital Adequacy Ratio							28.9	29.5	35.2	34.9	32.1	
Foreign bank susidiaries: Capital Adequacy Ratio							19.6	18.0	19.1	17.0	23.3	
Thailand												
Bangkok Bank Public Company Limited	12.2	12.5	12.6	11.2	12.0	11.7	15.4	16.1	15.5	13.8	14.5	14.5
Siam Commercial Bank Public Company Limited	11.1	11.6	12.3	11.0	10.6	11.4	14.5	15.5	16.5	15.2	13.1	14.4
Kasikornbank Public Company Limited	9.6	9.4	10.3	9.8	10.7	10.5	13.8	14.0	15.2	15.1	14.6	14.7
United Overseas Bank (Thai) PCL	15.5	17.8	19.5	17.0	16.5	16.4	16.7	19.0	21.2	18.5	17.7	17.4
Standard Chartered Bank (Thai) Public Company Limited	17.1	15.1	18.3	12.1	13.9	n.a.	17.1	15.1	18.7	12.5	14.2	n.a.
CIMB Thai Bank Public Company Limited	7.7	9.0	6.0	3.6	0.8	4.1	13.0	14.7	12.0	5.8	1.5	6.0

CAR (in %)	Tier 1 Ratio						Total Capital Adequacy Ratio					
	2011	2010	2009	2008	2007	2006	2011	2010	2009	2008	2007	2006
Singapore												
DBS Bank Ltd	n.a.	n.a.	n.a.	10.1	8.9	10.1	n.a.	n.a.	n.a.	14.0	13.4	14.4
Oversea-Chinese Banking Corporation Limited OCB	14.5	16.3	16.0	14.9	11.5	13.1	15.7	17.6	16.5	15.2	12.5	15.8
United Overseas Bank Limited UOB	13.5	15.3	14.0	10.9	10.0	11.0	16.7	19.8	19.0	15.3	14.5	16.3
Citibank Singapore Limited	n.a.	n.a.	n.a.	13.1	11.8	n.a.	n.a.	n.a.	n.a.	13.2	11.9	n.a.
Hong Kong												
Hongkong and Shanghai Banking Corporation Limit	n.a.	11.7	12.2	10.3	8.8	12.3	n.a.	14.7	16.1	13.4	11.6	13.5
BOC Hong Kong (Holdings) Ltd	12.5	11.3	11.6	10.9	12.2	13.4	16.9	16.1	16.9	16.2	13.1	14.0
Bank of China (Hong Kong) Limited	12.5	11.3	11.6	10.9	12.2	13.4	16.9	16.1	16.9	16.2	13.1	14.0
Hang Seng Bank Ltd.	11.6	10.8	12.8	9.5	8.4	10.7	14.3	13.6	15.8	12.5	11.2	13.6
Standard Chartered Bank (Hong Kong) Limited	n.a.	10.9	14.4	11.7	10.5	n.a.	n.a.	12.8	14.4	13.1	13.2	14.9
DBS Bank (Hong Kong) Limited	12.2	12.7	12.6	9.8	11.4	11.6	14.5	15.2	15.6	13.1	15.1	15.9
Citibank (Hong Kong) Limited	25.9	20.7	28.3	14.4	13.7	14.8	27.2	20.7	29.1	15.2	14.3	15.4
Japan												
Bank of Tokyo - Mitsubishi UFJ Ltd (The)-Kabushik	11.4	10.8	7.6	7.4	7.7	7.1	15.8	15.5	12.0	11.2	12.8	12.5
Sumitomo Mitsui Banking Corporation	14.3	12.3	9.2	7.6	7.2	5.6	19.2	16.7	13.5	12.2	13.0	10.8
Mizuho Bank	10.4	7.7	6.7	7.3	7.5	5.8	14.9	12.9	11.8	12.0	12.3	10.3
Citibank Japan Ltd	25.1	24.5	22.9	14.6	n.a.	n.a.	25.2	25.1	23.1	14.6	n.a.	n.a.

Source: Bank-scope database and Annual Reports

4.2.2 Liquidity Position

Both foreign and local banks in general remain liquid. With few exceptions, the standard liquidity ratio (net loan to deposit ratio) of selected major local and foreign banks have in general been stable between 2006 and 2011 (Table 6). Nonetheless, a number of noticeable increases in the ratio suggest some deterioration of the liquidity position in recent years. More importantly, the marginal decline in the liquidity position has been widely reported by local, regional and global foreign banks. As in the case of the CAR earlier, we do also find evidences that liquidity position of the European and the US banks in particular has

fallen more substantially than that of the local or regional banks. Moreover, the liquidity position of the foreign banks relative to local banks varies across banks and host economies. In the case of the Philippines, the local banks are in average more liquid than the foreign banks. This is not necessarily the case however when we observe closely the cases of Indonesia, Hong Kong, Malaysia, Thailand and Singapore. The HSBC in Malaysia, Hong Kong and the Citibank in Singapore and Hong Kong for instance continued to maintain a relatively strong loan to deposit level, although noticeably higher than during the pre-2008 period. It should be noted however that these analyses are based on a rather limited available sample set of observations.

Table 6: Liquidity Position

Liquidity Ratio (in %)	Net Loans / Dep & ST Funding				
	2011	2010	2009	2008	2007
Singapore					
DBS Bank Ltd	74.5	73.5	69.3	73.0	66.4
Oversea-Chinese Banking Corporation Limited OCBC	72.4	74.9	71.8	76.0	68.5
United Overseas Bank Limited UOB	72.4	64.1	65.8	67.4	66.6
Citibank Singapore Limited	n.a.	40.8	38.2	22.7	21.8
Nomura Singapore Limited	n.a.	44.7	43.4	57.9	56.3
Hong Kong					
Hongkong and Shanghai Banking Corporation Limited	n.a.	53.0	43.3	45.1	43.9
BOC Hong Kong (Holdings) Ltd	54.5	47.9	55.4	52.3	48.2
Bank of China (Hong Kong) Limited	54.3	47.8	55.2	51.6	48.3
Hang Seng Bank Ltd.	63.5	65.3	51.7	53.5	52.8
Standard Chartered Bank (Hong Kong) Limited	56.6	56.5	42.1	44.1	47.9
DBS Bank (Hong Kong) Limited	86.5	74.8	69.8	71.8	64.6
Citibank (Hong Kong) Limited	47.2	38.8	30.1	33.3	28.1
Japan					
Bank of Tokyo - Mitsubishi UFJ Ltd	51.7	56.4	63.7	63.1	60.6
Sumitomo Mitsui Banking Corporation	56.9	65.0	68.2	71.1	74.1
Mizuho Bank	50.5	50.2	59.7	56.0	58.6
Citibank Japan Ltd	9.3	7.7	6.0	6.6	n.a.

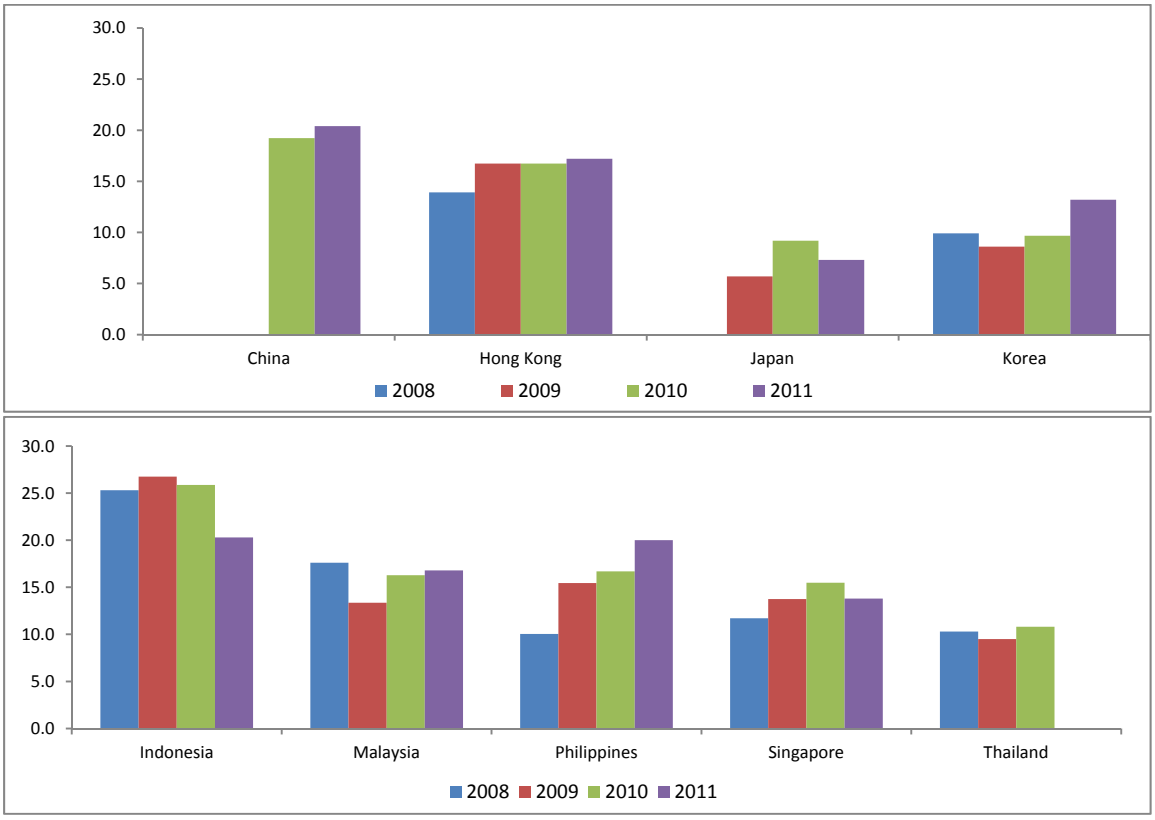
Liquidity Ratio (in %)	Net Loans / Dep & ST Funding				
	2011	2010	2009	2008	2007
Malaysia					
Malayan Banking Berhad - Maybank	77.8	76.4	74.6	76.8	67.5
HSBC Bank Malaysia Berhad	57.2	61.7	60.3	66.8	63.8
Standard Chartered Bank Malaysia Berhad	73.9	74.1	62.9	56.7	55.1
Deutsche Bank (Malaysia) Bhd.	10.5	8.8	9.6	14.0	10.0
Bank of Tokyo-Mitsubishi UFJ (Malaysia) Berhad	71.1	62.8	57.7	60.8	52.5
Citibank Malaysia (L) Ltd	n.a.	61.7	61.9	82.3	75.9
Indonesia					
Bank Mandiri (Persero) Tbk	69.2	63.3	56.0	54.4	48.3
Hongkong and Shanghai Banking Corporation Limited (The) - Indones	n.a.	n.a.	n.a.	n.a.	54.2
PT Bank ANZ Indonesia	76.8	78.7	72.7	83.2	59.6
Bank BNP Paribas Indonesia PT	n.a.	18.6	34.2	88.8	136.1
Citibank (Loan to Deposit Ratio)	66.7	69.2	73.6	79.5	70.8
Deutsche Bank (Loan to Deposit Ratio)	50.8	52.4	60.2	68.0	
HSBC (Loan to Deposit Ratio)	77.9	72.6	72.3	67.3	65.9
Standard Chartered (Loan to Deposit Ratio)	88.6	101.8	81.3	84.7	61.0
Philippines					
Philippines banking system: Gross loans to deposits	70	64.4	68.1	69.7	70.9
Foreign bank branches and subsidiaries: Gross loans to deposits	86.7	101.2	96.4	102.5	83.5
Existing foreign bank branches: Gross loans to deposits	81.9	99.9	95.2	97.5	80.7
New foreign bank branches: Gross loans to deposits	102.9	112	111	119	91.5
Foreign bank susidiaries: Gross loans to deposits	77	85.7	76.4	94.9	83.1
Thailand					
Bangkok Bank Public Company Limited	79.4	73.5	71.4	78.6	71.4
Siam Commercial Bank Public Company Limited	85.8	86.7	86.7	88.6	85.5
Kasikornbank Public Company Limited	88.1	87.9	86.1	81.0	88.4
United Overseas Bank (Thai) PCL	72.6	77.6	74.0	88.1	80.9
Standard Chartered Bank (Thai) Public Company Limited	52.4	55.6	47.8	47.9	45.2
CIMB Thai Bank Public Company Limited	83.5	79.5	72.6	48.1	49.6

Source: Bank-scope database and Annual Bank Reports

4.2.3 Profitability

Banks have been able to remain profitable throughout the crisis. In some economies the return to equity level is relatively high at above 15 percent, such as Indonesia, China, and Hong Kong, while in others the levels can be more modest at 5-10 percent, such as Japan, Korea and Thailand (Figure 15). While profitability levels vary across the region, banks have been able to maintain decent returns throughout the crisis, even rising profitability in some economies such as Korea and Philippines. The net interest margin (NIM) as an important contributor to profitability has dropped in most of the countries since the start of the crisis, with some countries faring better than the others (Table 7).

Figure 15: Return to Equity



Source: IMF-Financial Stability Indicator Database

Table 7: Profit Indicators

Profitability (in %)	Net Interest Margin						Return on Avg Equity					
	2011	2010	2009	2008	2007	2006	2011	2010	2009	2008	2007	2006
Malaysia												
Malayan Banking Berhad - Maybank	2.5	2.9	2.9	3.0	3.2	2.8	12.6	14.9	-1.7	13.7	17.5	16.3
HSBC Bank Malaysia Berhad	2.2	2.4	2.4	3.0	3.3	3.3	22.6	18.8	17.9	28.6	27.1	28.5
Standard Chartered Bank Malaysia Berhad	2.2	2.1	1.9	2.6	3.3	2.9	21.0	17.8	13.4	37.4	29.9	26.6
Deutsche Bank (Malaysia) Bhd.	2.5	2.5	1.9	2.0	2.2	3.4	4.0	11.1	9.7	15.2	16.5	16.4
Bank of Tokyo-Mitsubishi UFJ (Malaysia) Berhad	2.1	2.0	2.2	2.5	2.5	3.2	9.3	10.1	10.2	13.3	8.6	14.3
Citibank Malaysia (L) Ltd	n.a.	0.4	0.5	0.7	0.9	n.a.	n.a.	19.8	13.1	16.5	28.6	n.a.
Indonesia												
Bank Mandiri (Persero) Tbk	5.1	5.4	5.1	5.2	5.1	4.5	24.2	24.2	20.8	17.8	15.6	9.8
Hongkong and Shanghai Banking Corporation Limit	n.a.	n.a.	n.a.	n.a.	8.8	8.5	n.a.	n.a.	n.a.	n.a.	216.2	87.9
PT Bank ANZ Indonesia	7.6	8.6	6.3	7.8	9.5	9.7	12.4	9.4	1.2	20.9	16.9	16.4
PT Bank Mizuho Indonesia	2.4	2.7	3.1	3.3	3.5	4.3	8.8	12.8	11.1	11.5	11.3	14.8
Bank BNP Paribas Indonesia PT	n.a.	2.4	4.1	4.3	5.1	4.6	n.a.	6.7	16.8	17.0	10.1	12.5
Citibank*	4.1	4.8	6.7	7.7	8.4		19.1	23.5	25.3	28.1	33.2	
Deutsche Bank*	8.1	1.0	3.1	3.4			27.8	14.1	18.8	22.8		
HSBC*	5.3	5.4	7.9	8.7	9.5		16.3	18.3	11.0	14.4	13.9	
Standard Chartered*	4.6	3.7	4.1	5.2	3.7		18.9	10.5	16.9	19.6	23.1	
Korea												
Kookmin Bank	2.6	2.3	n.a.	n.a.	n.a.	n.a.	10.2	0.7	n.a.	n.a.	n.a.	n.a.
Standard Chartered Bank Korea Limited	2.6	2.3	n.a.	n.a.	n.a.	n.a.	5.2	6.6	n.a.	n.a.	n.a.	n.a.
Citibank Korea Inc.	3.1	2.7	n.a.	n.a.	n.a.	n.a.	8.5	9.0	n.a.	n.a.	n.a.	n.a.
Philippines												
Philippines banking system**							12.5	12.2	10.8	6.9	10.7	
Foreign bank branches and subsidiaries**							10.6	9	8.3	6.4	11.9	
Existing foreign bank branches**							9.8	13.5	12.3	8.9	19.4	
New foreign bank branches**							11	5.5	6.2	7.5	7.8	
Foreign bank susidiaries**							12.3	4.1	1.5	-5.4	-6.1	
Thailand												
Bangkok Bank Public Company Limited	2.9	2.7	3.1	3.6	3.3	3.4	11.6	11.7	11.2	11.9	12.3	12.5
Siam Commercial Bank Public Company Limited	3.4	3.2	3.6	4.0	4.0	4.0	21.2	16.4	15.5	17.8	16.5	13.6
Kasikornbank Public Company Limited	3.9	3.6	3.5	4.0	4.2	4.3	16.8	15.6	12.2	14.4	15.9	16.4
United Overseas Bank (Thai) PCL	3.0	3.2	3.5	4.0	3.8	3.8	0.4	3.6	2.8	5.6	-0.4	2.5
Standard Chartered Bank (Thai) Public Company Li	3.1	2.7	2.7	3.0	4.2	n.a.	10.5	5.7	6.3	9.2	8.3	n.a.
CIMB Thai Bank Public Company Limited	3.4	4.0	3.3	3.5	3.8	3.0	10.5	8.5	0.1	-67.9	-277.4	-69.2

**** For Citi, Deutsch, HSBC and Standard Chartered in Indonesia, Return on Assets and Return on Equity from Annual Reports***

***** Return on Assets and Return on Equity from A Status Report on the Philippine Financial System.***

Profitability (in %)	Net Interest Margin						Return on Avg Equity					
	2011	2010	2009	2008	2007	2006	2011	2010	2009	2008	2007	2006
Singapore												
DBS Bank Ltd	1.8	1.9	2.0	2.0	2.2	2.2	10.6	6.5	8.8	9.1	11.1	12.1
Oversea-Chinese Banking Corporation Limited OCB	1.5	1.6	1.7	1.8	1.6	1.5	10.1	10.8	10.7	10.5	13.9	15.1
United Overseas Bank Limited UOB	2.0	2.2	2.4	2.4	2.2	2.1	10.5	13.3	11.0	11.7	12.5	16.2
Citibank Singapore Limited	n.a.	2.0	1.9	1.5	1.2	n.a.	n.a.	12.9	19.4	24.6	20.5	n.a.
Credit Suisse (Singapore) Limited	n.a.	n.a.	1.2	2.4	1.1	1.1	n.a.	n.a.	10.3	-3.7	17.1	18.8
Barclays Merchant Bank (Singapore) Ltd	n.a.	n.a.	3.6	2.4	1.7	3.5	n.a.	n.a.	18.1	24.4	25.4	85.1
Nomura Singapore Limited	n.a.	0.6	0.7	0.3	0.2	0.4	n.a.	-22.3	-56.7	3.4	5.9	10.7
Hong Kong												
Hongkong and Shanghai Banking Corporation Limit	n.a.	1.4	1.5	2.1	2.0	2.1	n.a.	20.6	21.0	24.7	27.5	22.6
BOC Hong Kong (Holdings) Ltd	1.6	1.6	1.7	2.1	2.4	2.1	16.6	14.8	14.9	3.3	17.4	17.0
Bank of China (Hong Kong) Limited	1.6	1.6	1.7	2.0	2.1	1.9	18.2	16.0	15.6	8.1	19.0	18.1
Hang Seng Bank Ltd.	1.8	1.7	1.8	2.3	2.2	2.0	23.6	24.7	26.3	29.2	38.9	29.0
Standard Chartered Bank (Hong Kong) Limited	1.6	1.5	1.8	2.0	2.5	2.7	21.0	15.8	14.2	18.1	24.6	22.6
DBS Bank (Hong Kong) Limited	1.6	1.7	2.1	2.0	2.3	2.7	10.6	11.1	13.2	11.1	17.6	18.1
Citibank (Hong Kong) Limited	2.6	2.7	3.2	3.8	3.4	3.4	11.1	9.5	17.4	36.4	53.7	38.8
Japan												
Bank of Tokyo - Mitsubishi UFJ Ltd (The)-Kabushik	1.1	1.2	1.3	1.3	1.2	1.1	8.6	5.3	-2.0	7.8	9.4	15.7
Sumitomo Mitsui Banking Corporation	1.1	1.2	1.3	1.3	1.2	1.2	7.7	7.3	-5.5	8.0	9.2	14.9
Mizuho Bank	0.9	1.0	1.0	1.0	1.0	0.9	7.1	3.0	-17.6	10.0	9.7	8.8
Citibank Japan Ltd	0.9	1.0	0.9	0.6	n.a.	n.a.	4.4	4.0	9.2	9.1	n.a.	n.a.
Barclays Capital Japan Limited	n.a.	0.0	0.0	0.0	n.a.	n.a.	n.a.	0.7	-6.3	1.3	n.a.	n.a.
Société Générale Private Banking (Japan) Limited	n.a.	n.a.	n.a.	n.a.	0.4	0.2	n.a.	n.a.	n.a.	n.a.	-18.7	-28.5

Source: Bankscope database and Annual Reports

Most foreign banks exhibit a lower profitability than their local counterparts in recent years. This is perhaps not surprising in most economies in this region, particularly wherein foreign banks only control a modest market share and usually maintain a higher capital

adequacy level than the local banks. Moreover, the profitability of the foreign banks largely depends on their business locations rather than parent bank origins. Although banks in advanced countries such as US or Europe are hit harder than banks in other places, the performance of their subsidiaries or branches in the ASEAN+3 region is largely determined by the local business conditions, and do not show significant higher volatility of profitability. Despite the swings their parent banks are experiencing in terms of capital and profitability, the foreign bank branches or subsidiaries in the ASEAN+3 region have seen steady profitability during the crisis (although slightly lower in some economies). Some foreign banks have achieved higher profitability in the recent years, such as in the Philippines and Thailand, which is generally in line with the overall profitability development in the banking sectors of the respective countries. This suggests that the profitability of foreign bank branches or subsidiaries in this region are perhaps less affected by the performance of their parent banks but more by local factors, particularly the growth rate of the host economies.

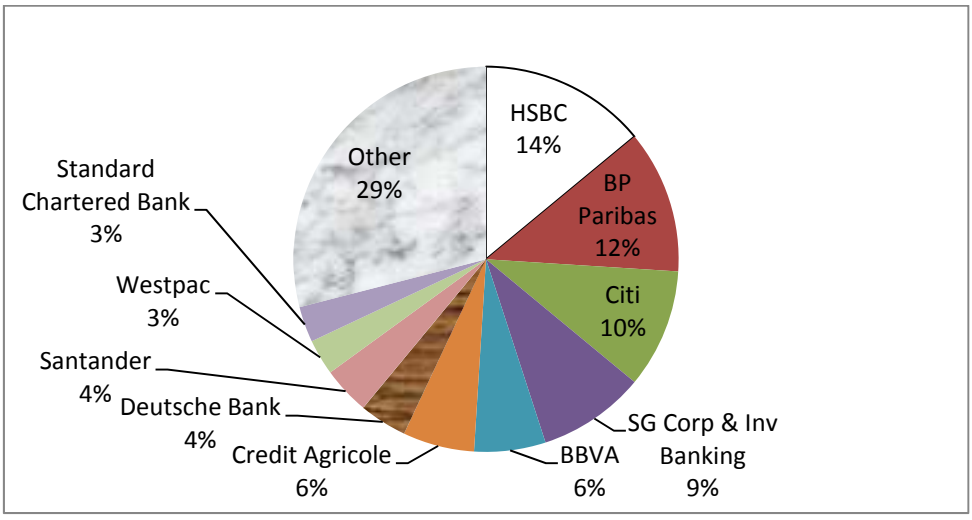
4.3 Trade Financing

Two key factors have frequently been underlined by early studies as root causes of poor export/trade performance of the East and Southeast Asian economies at the height of the 1997 East Asian crisis. The first factor is the exchange rate risk, and the second is the scarcity of short-term trade financing facilities. Accompanying the sharp fall in global trade, the joint IMF–Banker's Association for Trade and Finance (BAFT) survey found the decrease in the value of trade finance accelerated between October 2008 and January 2009 in almost every region of the world (BAFT, 2009). Furthermore, the World Bank estimates that 85–90 percent of the fall in world trade since the second half of 2008 is due to falling international demand, and 10–15 percent is attributable to a fall in the supply of trade finance (Auboin, 2009). Claudio (2008) further claimed that the role of trade financing has been strengthened by the structure of production lines through regional supply chains and the move to the greater cross-border dispersion of component production and assemblies within vertically integrated production processes in Asia. A recent work (Siregar 2009) on the experiences of Indonesia, Thailand and Korea from 1993 to 2009 confirmed the importance of trade financing on the overall export performance of these three economies.[8]

[8] The study finds that a 1 percent drop in the trade finance could lead to around 0.2-0.4 percent drops in the exports. Furthermore, the study also claims that the more developed a country's financial sector the more significant the role of trade financing would likely to be.

Wholesale funding activities, especially in the areas of trade and project financing, remain a concern in the event of a prolonged deleveraging by the advanced economies' lenders. Banks and non-bank financial institutions from major European economies, in particular from the UK, Germany, France and Spain, have long been the major providers and underwriters of trade financing to emerging markets in Asia and Pacific (Figure 16). Based on the March 2012 BIS report, trade and project financing activities of Eurozone lenders have been most affected by the deleveraging process. While total lending globally by the weaker European banks were scaled back by about 15 percent in the second half of 2011, project and trade financing were reduced by 39 percent and 23.5 percent respectively. The larger proportions of cuts in trade and project financing were also reported by many Eurozone lenders.

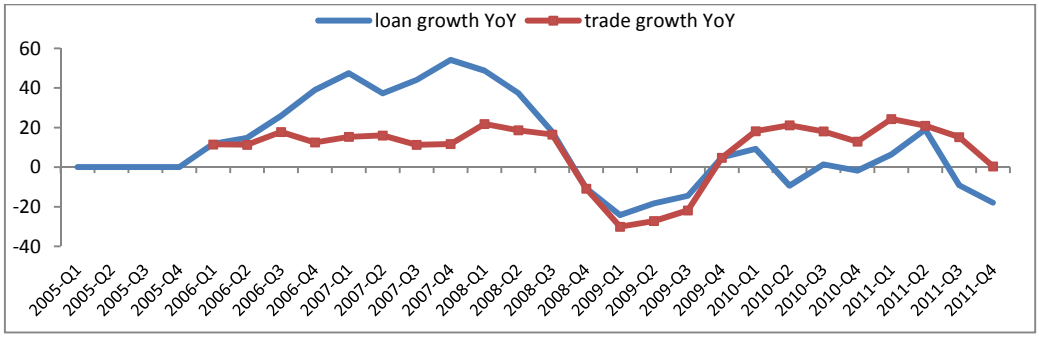
Figure 16: Export Credit Agency Backed Trade Finance in Asia



Source: Barclays Capital

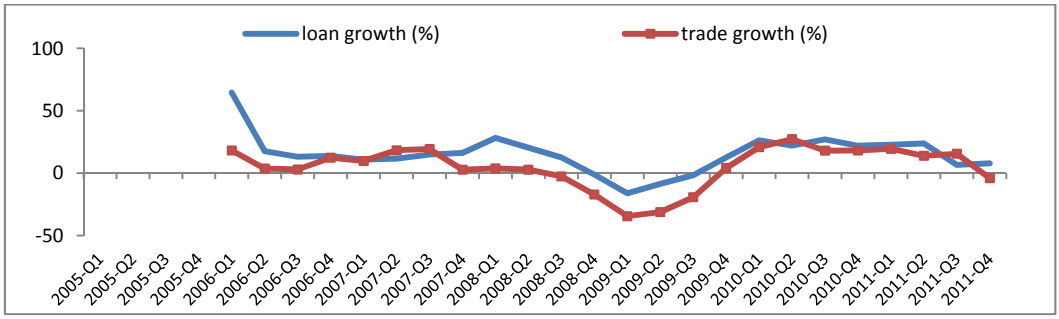
Assessing the full impact of on-going Eurozone bank deleveraging on trade financing and subsequently on trade performance is challenging in the absence of detailed information and data on the different types of loans (including trade and project financing) that have been extended to ASEAN+3 economies. However, a straightforward mapping of the growth rates of the bilateral bank lending from four major Eurozone economies and the ASEAN-5 economies and Korea, and of the bilateral trades (exports and imports) between the same sets of economies visibly signal a high degree co-movements between them, especially since 2005 (Figure 17). A similar co-movement between bilateral loans from the UK banks to ASEAN-5 and Korea and bilateral trades between UK and the same set of Asian economies is well traced during the same period (Figure 18).

Figure 17:
Bilateral Lending and Trade of Four Eurozone Economies and ASEAN-5 and Korea



Note: Four Eurozone economies are France, Germany Spain, and Netherlands. ASEAN-5 includes Indonesia, Malaysia, Philippines, Thailand and Singapore. All growth rates are in percentages. Source: AMRO Staff calculation, BIS database and CEIC.

Figure 18: Bilateral Lending and Trade of UK and ASEAN-5 and Korea



Note: ASEAN-5 includes Indonesia, Malaysia, Philippines, Thailand and Singapore. Source: AMRO Staff calculation, BIS database and CEIC.

The parallel movements of the trade and lending series arguably point to either bilateral trade activities lead to higher demand for bilateral bank lending or vice-versa, and therefore corroborate the claims that a portion of the lending by the global banks directly associated with trade financing. A set of pair-wise granger causality testing confirms the two-ways relationships between lending and trade (Table 8). As much as bilateral trade activities between the ASEAN+3 economies and the major global trading partners (US, UK, Japan and Euro) could have induced more demand for trade financing, the availability of trade financing facility may have also further fuelled bilateral trade activities between these economies. The Granger-causality test, in particular, confirm that the availability of financing has boosted bilateral trade activities between selected ASEAN+3 economies with their key global trading partners (US and UK) with about 2-4 quarters lag. This set of test results supports the early stylized fact that the US and the UK banks are important suppliers of trade financing to the ASEAN+3 region. On the other hand, the granger causality test results found a less significant role of the Eurozone bank lending in explaining bilateral exports with this small subset of the ASEAN+3 economies (Table 8). Unfortunately, long enough

individual time-series data on loans for trade and project financing for ASEAN+3 economies are not publically available for the testing to be carried out in a more comprehensive manner.

Table 8: Granger-Causality Testing for Bilateral Export and Lending

(Period: 2000:q1 – 2011q4)

a). Bilateral Export Does Granger-Cause Bilateral Lending

				Eurozone		
	US	**UK**	**Japan**	**Germany**	**Italy**	**Spain**
Indonesia	Yes	No	Yes	No	No	Yes
Korea	No	No	Yes	Yes	No	No
Malaysia	No	Yes	Yes	Yes	No	No
Philippines	No	Yes	No	Yes	No	No
Thailand	No	No	Yes	No	No	Yes

b). Bilateral Lending Does Granger-Cause Bilateral Export

				Eurozone		
	US	**UK**	**Japan**	**Germany**	**Italy**	**Spain**
Indonesia	Yes	Yes	Yes	No	No	No
Korea	Yes	No	Yes	No	No	Yes
Malaysia	Yes	Yes	Yes	Yes	No	No
Philippines	Yes	Yes	No	No	Yes	Yes
Thailand	Yes	Yes	No	Yes	Yes	No

Source: AMRO Staff Calculation

4.4 Asset Markets: Boom and Bust Factors

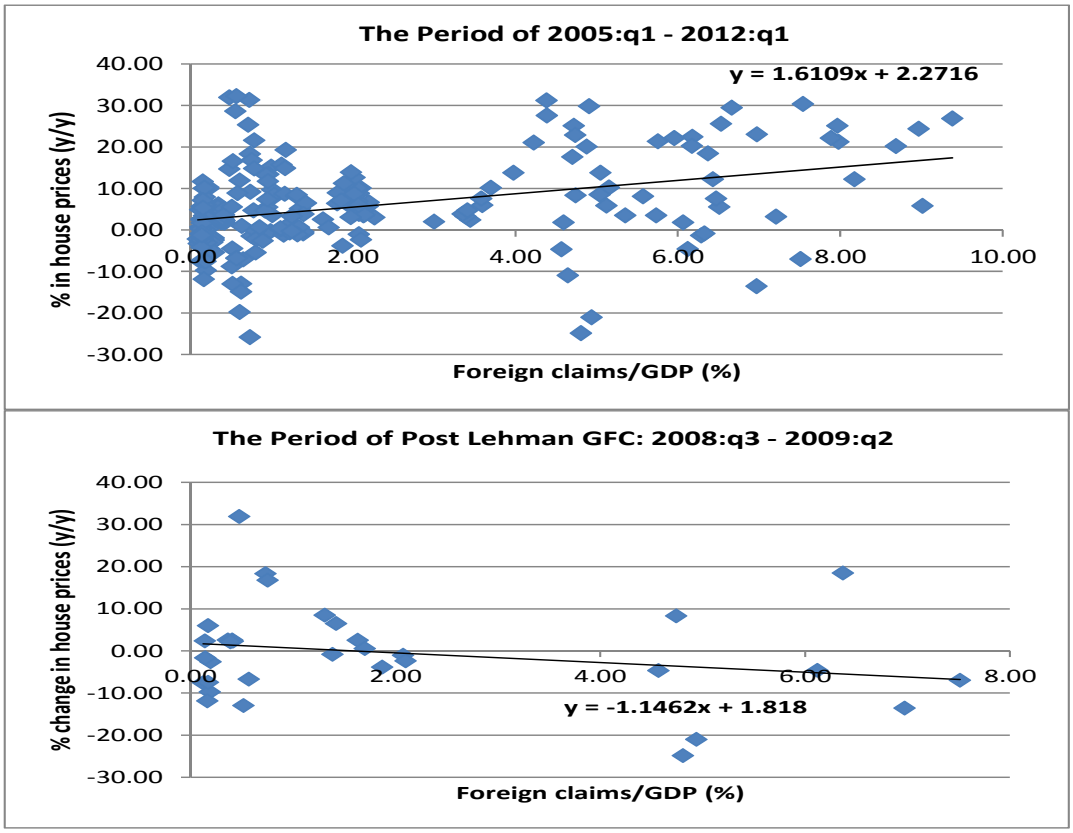
The strong relation between asset prices and bank lending has long been spotted, particularly during periods of severe economic and financial crisis. Real effects are particular grave if a bubble occurs in the real estate market, but stock prices can experience substantial declines as well. Two ways of transmission of shocks have been reported. One way is for the asset price slump to affect balance sheets of banks and therefore their lending

capacities. Reciprocally, a dry-up in liquidity/funding due to a sudden pull-out in the bank lending (including those of the foreign banks) could lead to falling asset prices. Seminal studies in this topic are on the great depression period (Bernanke 1983 and 1995) and on the East Asian crisis (Stiglitz and Greenwald (2003)).

As in other parts of the globe, foreign bank lending potentially contributed to the general rising residential house price level in ASEAN+3 economies. The annualized quarterly growths of residential house price in selected ASEAN+3 economies (Indonesia, Malaysia, Philippines, Thailand, Singapore, China, Hong Kong, Korea and Japan) since 2005 are found to be positively related to the exposure levels of those economies to the foreign bank lending (Figure 19). A closer observation also reveals that during the boom period of the foreign bank lending to East Asia from 2005 to the second quarter of 2008, foreign bank lending and residential property rose in tandem. On the other hand, a reversal or pull-out of these lending immediately after the Lehman collapse seems to be followed closely by a period of housing price correction within 1-2 quarters. This was particularly apparent in Hong Kong, Singapore and to some extent Malaysia and Thailand, but less in Indonesia and the Philippines.[9] Unfortunately, the limited observation set does not allow us to robustly test the causality between lending and property price, particularly for the crisis period.

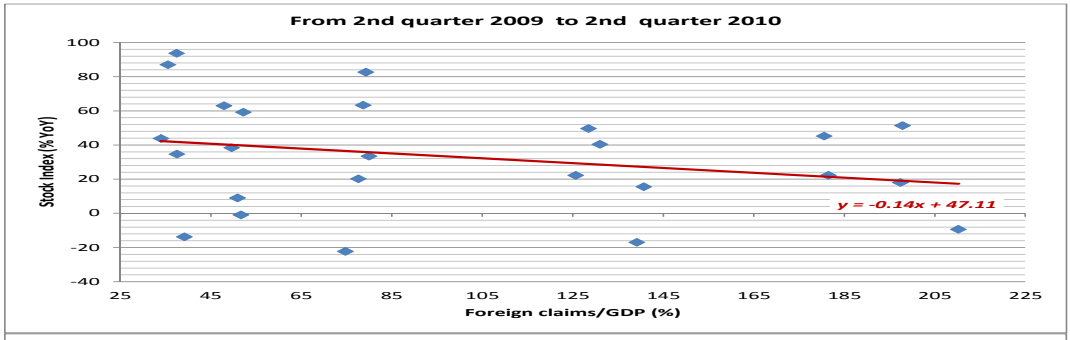
[9] A more in-depth research to understand the link between real estate price and foreign bank lending is warranted. In particular, one may want to look into the breakdowns of the foreign bank lending to understand the share that goes to the property market.

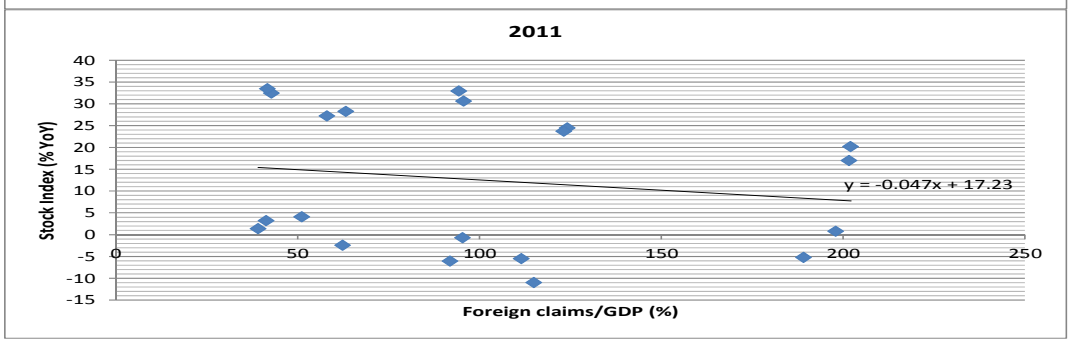
Figure 19: Global Bank Lending Exposure and Residential Property Price

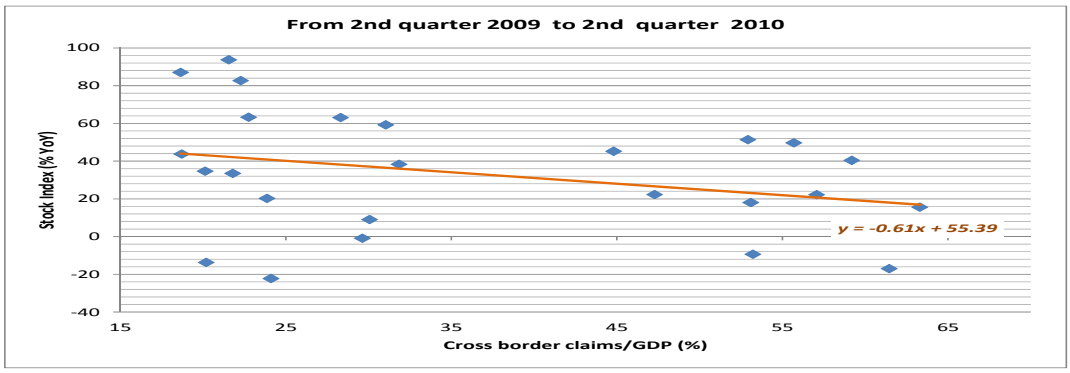


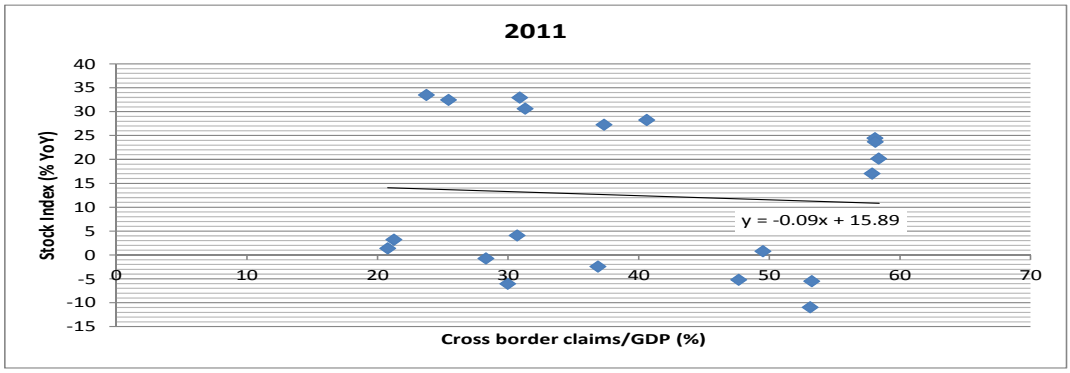
The interconnectedness between the asset markets and the global banking sector is also evident from the recent performance of stock exchange markets within the ASEAN+3 region. As demonstrated in Figure 20, the performance of the stock markets of selected non-financial centre ASEAN+3 economies in 2009-2010, following the Lehman Brothers debacle, appears to be negatively affected by their exposures to the claims of the global banks (Figure 20). In particular, the more exposed the financial sector was to foreign bank cross-border lending, the more severe the losses in these respective stock markets. A similar trend is reported during the recent Eurozone sovereign debt turmoil in 2011. The negative relationship seems to be more pronounced when we focus for the case of Eurozone banks' lending in 2011.

Figure 20: Global Bank Lending Exposure and Stock Exchange Performance









Source: CEIC database and BIS.

5. Practical Implication to Banking Regulation and Monetary Policy Management

5.1 Strengthening Supervisory Capacity: Beyond Local Jurisdiction

Following the 1997 East Asian crisis, the collapse of banking sectors in a number of East Asian economies underscored the inadequate supervisory capacities in our region. The shortcoming was partly due to the failure to keep up with the reform and the development of the banking sector. Not only that the sector quickly opened up to the foreign banks, but with the accompanied reform of the capital and insurance markets, banks are providing services beyond the conventional banking activities, such as offering investment instruments/derivatives and insurance policies. The emergence of the "supermarket" banks warrants a closer integration among the financial market supervisory agencies in the domestic economy.

Fast forward more than a decade later, the challenges facing financial sector supervisors become more complex globally, including those in the emerging markets of East and Southeast Asia. The banking sectors are not only deeply interconnected regionally, but also globally. As elaborated, the local and regional banks have not only borrowed heavily from, but also extended loans to global banking system. The traditional global banks, such as the HSBC and the Standard Chartered bank, have increasingly become regional banks[10]. At the same time, many of the ASEAN banks, such as the DBS, OCBC, UOB, MayBank and the CIMB, have become regional and global banks. The need to integrate financial market supervisory agencies is no longer a domestic issue. Given the cross-border nature of these banks' operations, the regular supervision on domestic activities of these banks will not be sufficient to assess the overall risk exposures. There are a number of lessons from the recent global financial crisis that underscore the importance of establishing a closer coordination among banking supervisors across the borders.

To start, a much more in-depth research needs to be undertaken to fully grasp the interconnectedness of the domestic banking sector, regionally and globally. Mapping the networks and degree of integration of the regional banking systems is urgently needed before even formulating steps to enhance the supervisory capacities of the networks. This study has so far identified potential areas of issues that need to be further examined. The lack of timely and publically available data on the detailed breakdowns of foreign bank lending directed for trade and project financing inhibits efforts in conducting more in-depth analyses on the lending activities of the foreign banks. Furthermore, data on the lending activities of the regional banks are not publically available. While the frequently visited BIS database reports bilateral lending from the advanced economies' banks to most individual ASEAN+3 economies, no disaggregated level of lending data to various destinations, particularly to the ASEAN+3 economies, is reported for Singaporean, Malaysian, Korean and

[10] As discussed and will be elaborated more, these banks' operations in ASEAN+3 become more independent from the Headquarters of these banks.

Indonesian banks. In fact, only the bilateral lending of the Japanese banks is regularly reported at this time. Without these valuable information and data, potential contagion or spill-over within the banking sectors of the region and the world will likely be underestimated.

The recent global events also demonstrate that the economic cost of gaps in regulation across banking supervisors across economies will likely be amplified. A tougher set of regulation by the Financial Service Authority in UK introduced in the past two years, including on mode of entry (branch or subsidiary) and more rigorous liquidity rules, has resulted in international banks pulling out big shares of their activities away from London to other European economies with less-regulated financial markets. Expansion of global banks has increasingly been influenced by the rules and regulations of domestic supervisors relative to their foreign counterparts.

Another concrete lesson from the recent sovereign debt crisis in the Eurozone area is on the design of legal framework to inject emergency funds required to bail-out trouble banks. Given the cross-border networks of the banks, any bail-out program must be coordinated across the border. An important hurdle of the bail-out program in the European economies is with the lack of cross-border integrated supervisory capacity to fully assess the extensiveness of the bail-outs needed. The failure to mitigate the impacts of the Lehman-Brothers' debacle in 2008 for instance could arguably be attributed to the lack of cooperation between the supervisors in the US and the UK. Hence, building trust through deepening cooperation among supervisors across the borders is greatly vital to manage this increasingly interconnected banking system.

5.2 Managing Monetary and Exchange Rate Stability Amidst of Global Stimulus

The monetary and exchange rate policy stances of central banks, particularly for major advanced economies, have frequently been swiftly transmitted to other part of the world through this globally integrated banking system. The transmission of the "policy shocks" has made conducting monetary and exchange rate policy arguably to be even more complex, particularly for the recipient economies. A study done by Ceterolli and Goldberg (2008) for instance finds the globalization of banking in the United States is influencing monetary transmission mechanism both domestically and in foreign markets.

A similar experience has also been reported from the recent quantitative easing measures by the US Federal Reserve. It is estimated around USD236 billion total private capital outflow per quarter during the US Federal Reserve quantitative easing measure (QE-1) and about USD278 billion per quarter during the first two quarters of QE-2 (Table 9). These rates are higher than the average of USD204 billion per quarter during the period with

no QE measure between November 2009 and October 2010. A slightly above 20 percent of these total capital outflows were eventually absorbed by the Asia-Pacific economies. As demonstrated in the Table 9, a fair share of the increase in the private outflow during the second quantitative easing (QE-2) was in the form of other private claims, namely via international bank lending.

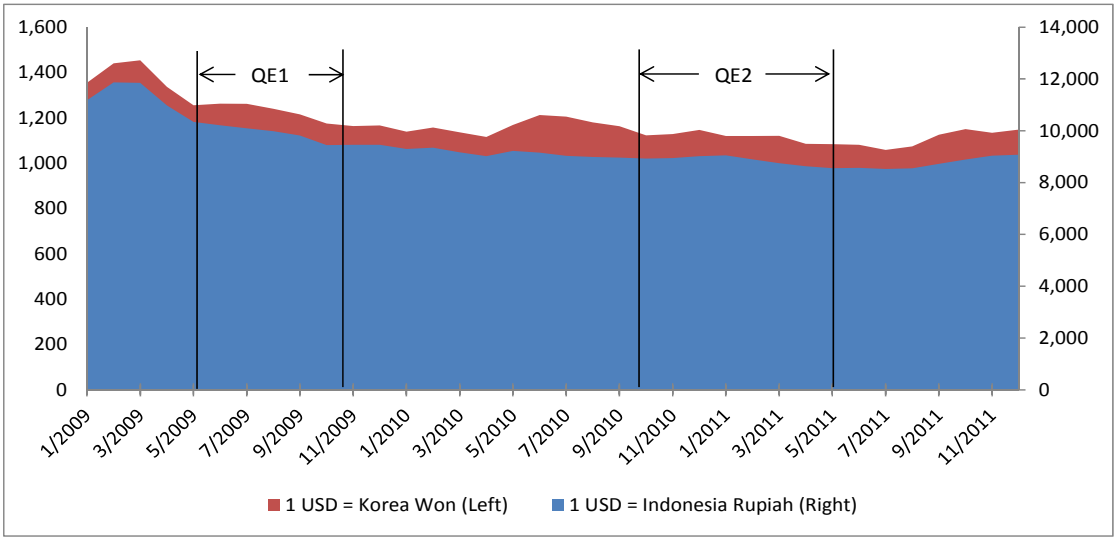
Table 9: US Gross Private Capital Outflows Following Past QEs

Quarterly Average in USD billion	**QE-1**	**QE-2***	**No QE****
Direct Investment	-80.8	-85.9	-86.0
Portfolio Investment	-74.1	-50.8	-37.6
Other Private Claims	-82.0	-141.6	-81.2
Total	-236.9	-278.3	-204.8

Note: */QE2 includes data on the first two quarters. **/ No QE covers the period of Oct 2009- Sept 2010. Source: the U.S. Bureau of Economic Analyses and Morgan (2011).

There are obvious and wide implications of these stimulus measures for the monetary and exchange rate policy management across the globe, including the emerging markets of East and Southeast Asia. To start, a weaker USD against major currencies around the world was reported in the past QEs. The US dollar was in average hovering around 0.687 and 0.757 against the UK pound sterling and the euro, respectively, during the three months period prior to implementation of the QE-1. By the final three months of QE-1, the US dollar has depreciated by almost 11 percent against the UK pound sterling and 9.2 percent against the euro. As for the final three months of the QE-2, the US currency weakened by around 6 percent against the pound sterling and the Japanese yen, and at around 11.6 percent against the euro from the average rates reported during the last three months prior to the implementation of the QE-2. Similar general trends were reported in currencies of major Latin American economies such as Brazilian real, Mexican peso and the East and Southeast Asian currencies such as Korean won and Indonesian rupiah (Figure 21). The strong domestic currency against the US dollar and the weak demand due to slow GDP growth impose risk to the competitiveness of export products of these emerging markets. Many central banks, including in the East and Southeast Asian region, had to intervene and manage the appreciation pressure and volatility of the local currencies, and absorbed the balance sheet costs of these intervention.

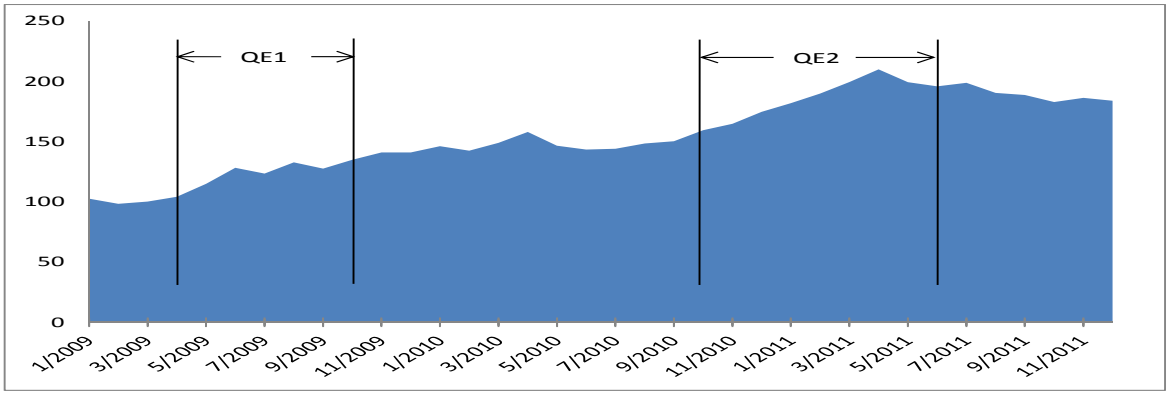
Figure 21: Quantitative Easing and the US dollar Rates



Note: An increase in the rate implies an appreciation of the US dollar. Source: CEIC database

Furthermore, managing asset bubble and headline inflation have become more complex as well amidst these global stimulus. As discussed earlier (and demonstrated by Figure 19), international bank lending has fuelled a rise in the residential property price. In addition, a rise in the past quantitative measures underpinned rising commodity prices, and potential similar consequences of the latest QE should also be anticipated. The world commodity price index rose as much as 29.4 percent and 31.7 percent at the peak reached in October 2009 for the QE-1 and April 2011 for the QE-2, respectively, from the levels one month prior to the implementation of those policies (Figure 22). The rise was particularly felt in the energy sector with the commodity fuel price index rose well above 40 percent during each of the two QE episodes. The combination of surges in the asset and commodity prices contributed to the unanchored inflation expectation and thus complicated further the management of price stability in many economies across the globe, particularly those experiencing massive inflows of the private capitals. In the second half of 2012, we witnessed announcements and implementations of multiple stimuli by the monetary authorities/central banks of the advanced economies (Box 1). The combination of stimulus efforts will undoubtedly make the management of monetary and exchange rate policies even more complex for the regional central banks in Asia.

Figure 22: Global Commodity Price Index*



Note: */this index includes both fuel and non-fuel commodities. Source: IMF

Box 1: Recent Monetary Easing Measures in Major Advanced Economies

The Federal Reserve (Fed) embarked on QE3 in September 2012 and anticipated the low federal funds rate to stay till at least mid-2015. The newest round of quantitative easing would involve monthly purchase of additional $40 billion of agency mortgage-backed securities, and no ceiling or end date was set. The length of the program would hinge on development of labor market. Meanwhile, the Fed would continue with its Operation Twist program which started in late 2011 with $ 400 billion and expanded by another $267 billion in June 2012. The Fed also anticipates the federal funds rate to remain at 0-0.25 percent till at least mid-2015.

The European Central Bank (ECB) announced Outright Monetary Transactions (OMT) in August 2012 as the latest easing efforts to improve financial conditions and stimulate growth. The OMT would replace the Securities Markets Programme (SMP) which was originally introduced in May 2010 and has accumulated a stock of $ 270 billion. The major difference between OMT and SMP is that purchase under OMT would be conditional on EFSF/ESM program. Moreover there is no preset limit on the size, and the coverage would be shorter term bonds (mainly sovereign) at the 1-3 year maturity.

The Bank of Japan (BoJ) boosted the Asset Purchase Program by 5 trillion yen in April and 10 trillion Yen ($128 billion) in September 2012. The program was first established in October 2010 with a size of 35 trillion yen, and aimed to enhance monetary easing by reducing long term market interest rates and risk premiums. Since then the program was expanded several times and currently has a size of 80 trillion yen. At the same time, the BoJ would continue its zero interest rate policy adopted since October 2010.

The Bank of England (BoE) activated the Extended Collateral Term Repo (ECTR) in June and increased the Asset Purchase Facility (APF) by £50 billion in July 2012. The ECTR is a contingency liquidity facility launched in December 2011 that enables the BoE to provide liquidity with a much wider range of collaterals than in normal indexed long term repo operations. The BoE would conduct the operation at least once a month with a minimum size of £5 billion.

5.3 Branch versus Subsidiary: Does It Matter?

Subsidiarisation has attracted much recent policy interest as a means of "ring-fencing" domestic banking sector from external shocks. Early works such as Mihaljek (2010) and Fietchter et al. (2011) claim that the attraction of being able to easily ring-fence the assets of subsidiaries of foreign banks as opposed to foreign bank branches arguably leads banking regulators to favour an organizational bank structure comprised mainly of subsidiaries rather than branches. Other studies noted however that subsidiarisation of foreign banks in an economy does not, by itself, necessarily reduce cross-border capital flows, both between the subsidiary and its head office and related bank group branches, or with other banks. The pros and cons of adopting subsidiary structure over branch vary as summarized in Table 10. From the bank's perspective, the debate ranges from the cost of doing business to the overall degree of independent cash-flow management. Opening a branch for instance would cost the group less than establishing a subsidiary. Yet, the subsidiary structure may work well, especially for retail banks, as it may benefit from a local and more independent management team that has a deep understanding of the local market and a greater ability to obtain local funding.

Table 10: Summary of Perspectives on Branch versus Subsidiary

Branch	Subsidiary
Bank perspective	
• Free flow of intra-group capital and liquidity with integrated organizational and risk management. • Costs of doing business may be lower under the branch structure than under the subsidiary structure. • Enable the banking group to mobilize and re-direct funds from healthy affiliates to an affiliate that finds itself in trouble due to country-specific shocks, or to draw on excess capital/liquidity of an affiliate at times of stress for the parent. • Losses incurred by an affiliate or the parent could, in principle, be isolated from the healthy parts of the group. • For a global universal bank, the branch structure that facilitates cross-border inter-affiliate funding would assist in the provision of a broad range of services to large corporate clients around the world. • Branches allow global banks to manage liquidity more efficiently at the group	• Independently managed affiliates that are financially and operationally self-sufficient. • Maintaining greater self-sufficiency of affiliates requires that each affiliate hold higher capital and liquidity buffers to limit the likelihood of failure. • Parent bank prevented from taking swift action due to certain restrictions on moving capital and liquidity from a subsidiary in one country to a parent or a subsidiary in a different country. • Better able to continue as a going concern should other parts of the group, or the parent, fail or have to be resolved. • For a global retail bank, greater importance attached to the access to local deposit guarantees and a relatively lower weight assigned to large exposure limits. • The subsidiary structure may work well

level. • Counterparty and liquidity risks reduced through internalization of clearing and settlement of securities and cash payment obligations.	for retail banks, as it may benefit from a local management team that has a deep understanding of the local market and a greater ability to obtain local funding.
Policymaker perspective (host country)	
• Branches could provide host country borrowers with easier access to foreign credit. • The host country is better off with the branch structure if facing a shock to the domestic economy or the financial system as the branch structure entails stronger commitment, in principle, on the part of the parent bank to support its affiliates. • In the event that an affiliate operating in a host country falls into distress, the host country would have a relatively lighter obligation and burden when dealing with a branch, which is the responsibility of the parent bank and home authorities, than with a subsidiary.	• The subsidiary model could be better for local market development as subsidiaries are more likely to rely on local savings. • Supervisory control and oversight responsibility of the host country are greater under the subsidiary structure. • Subsidiary structure permits host country supervisor to impose the regulations that could protect the depositors of the institutions doing business in their jurisdiction. • The host country is better off with the subsidiary structure when facing adverse external shocks as it is easier to ring-fence the subsidiaries of foreign banks than their branches. • Organizing banking groups as a constellation of separate legal subsidiaries may facilitate implementation of recovery and resolution plans that provide systematic and holistic blueprints to facilitate orderly wind-down of systemically important financial groups in the event of failures.

Furthermore from the perspective of the supervisor of the host economies, financial stability benefit of subsidiary or branch may in fact be influenced by the origin of the economic and financial turbulence.

- *If the parent bank in the home jurisdiction or head office-related entities run into liquidity or solvency problems*: a ring-fenced foreign bank subsidiary may be more isolated from these problems elsewhere in its bank group. The subsidiary holds its own assets and capital that are legally separate from the parent bank. The parent bank and creditors of the parent bank have no recourse to the assets of the subsidiary, and can only recover the capital that the parent bank has invested in the subsidiary after creditors and deposits of the subsidiary have been paid. The host jurisdiction banking regulator also has greater control over the liquidation of the subsidiary.

- *If the foreign bank subsidiary in the host jurisdiction runs into liquidity or solvency problems (that are unrelated to the parent bank):* the flip-side of ring-fencing is that the subsidiary may be perceived to have less support from the parent bank and its bank group, and also from the home jurisdiction regulator. This places the burden of lender-of-last resort on the host jurisdiction regulator.

Local economic conditions of the host and home countries also influence significantly the performance of the subsidiary and branch of the global banks. During the past economic and financial crisis, originated predominantly from the emerging economies, foreign bank's branch and subsidiary performed more robustly and efficiently than domestic commercial banks, as demonstrated by a more stable lending and a more aggressive action against bad loans. However during the recent global financial crisis, the branch and subsidiary of the foreign banks in general cut back their bank lending more aggressively, particularly in Eastern Europe. Furthermore studies have also reported a high presence of foreign bank increases exposure of host economies to cyclical conditions in the home countries of those banks.

Furthermore, it is not clear that the market differentiated between branches and subsidiaries of a bank group that was in trouble during the recent global financial crisis. A classic example is the case of the Lehman Brothers. The loss of confidence in Lehman Brothers affected both branches and subsidiaries alike, leading to the collapse of the whole group. Similarly, based on the balance sheets of a number of major foreign banks in the ASEAN+3 region (listed in Table 2), both subsidiaries and branches seem to weather their crisis equally well. As reported and discussed earlier, capital adequacy levels in general remain above Basel II and in some cases of the Basel III requirements. Furthermore, these foreign banks continued to sustain profit amid the volatile global financial market. As far as their lending and liquidity position, our limited observation fails to detect a significant gap between subsidiary and branch. Nonetheless, a more in-depth research with a much more comprehensive data of the banking system of the region is urgently needed to generate a more conclusive finding.

To manage any potential high cost of bail-out, the United States Federal Reserve in December 2012 proposed that the policy on the foreign banks be tightened to protect taxpayers from having to bail them out. The US has traditionally relied on foreign supervisors to watch overseas banks, allowing them to hold less capital than their domestic counterparts. The 2010 Dodd-Frank broad overhaul of the US financial landscape put an end to that policy, after the Federal Reserve was forced to extend hundreds of billion dollars in

emergency loans to overseas banks in the financial crisis. The recent move will require foreign banks to group all their subsidiaries under a holding company, subject to same capital standards as US holding companies.

6. Brief Concluding Remarks

As clearly demonstrated in a recent global financial crisis, the economic shocks from one part of the world can swiftly be transmitted to another via both trade and financial channels. For the emerging markets of the ASEAN+3 economies, banking remains a key transmission channel of shock through the financial sector. The increasing presence and importance of the foreign banks in the domestic economy have not only been beneficial, but have also increased the exposure of the local economy to volatilities of the global financial markets.

The objective of this study is to identify a number of features and characteristics of foreign banks' activities in East and Southeast Asian economies. In particularly, the study highlights certain key fundamental challenges facing the regulatory institution and central banks in dealing with these global banks. There are a number of regulatory and supervisory adjustments to be considered nationally, regionally and even globally. At these different levels of policy formulations, designs and implementations are increasingly needed to be carried out in a coordinated manner to maximize the effectiveness of the measures given the highly integrated banking system. Concurrently, it is also important to recognize that over-regulated banking system could potentially limit the benefits of having foreign banks for the domestic economy.

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