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Cross-border banking in Asia:
Basel 2 and other prudential issues

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Abstract

The 1997 crisis led to a sharp decline in cross-border banking activity in East Asia. Foreign banks have since returned but with new types of loans. In particular, they have introduced local currency consumer and mortgage loans and thus fostered a shift from commercial to consumer borrowers. In the meantime, the supervisory authorities have welcomed Basel 2 as a way to avoid the vulnerabilities in the banking system that led to the Asian crisis. Here, they are confronted by challenging home-host issues and by their domestic banks' need for data to implement the more advanced approaches, especially for mortgages and other consumer loans. One risk with which they still need to deal is the systemic risk of contagion. While Pillar 2 of the new framework would suggest that banks assess such risk on their own, they may have little incentive to do so and may require some prodding from the authorities.

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Introduction

The 1997 crisis led to a sharp decline in cross-border banking activity in East Asia. In recent years, however, foreign bank activity has started to recover but it has done so in ways that differ from the previous activity. Much of foreign bank lending in Asia is now in the form of local currency loans. Moreover, instead of extending commercial loans, these banks now tend to either hold government securities or lend to households in the form of consumer loans or mortgages. While such foreign bank activity remains limited, it is helping to transform the way domestic banks do business and is fostering a general trend towards consumer and mortgage lending.

In the meantime, bank supervisory agencies in the region have welcomed the new framework of Basel 2 as a way to avoid the vulnerabilities that led to the Asian crisis. In doing so, the authorities have been trying to avoid the possibility of domestic banks' relying on the standardized approach while foreign banks take advantage of the advanced approaches. Even with a still limited foreign bank presence, the authorities are finding themselves confronted not so much with challenging home-host issues but with the need to give their domestic banks more time to collect the data needed to implement the more advanced approaches, especially for mortgages and consumer loans.

Another important cross-border issue for banking systems in East Asia has been the question of how to deal with the systemic risk of contagion. These are risks that are difficult to capture with just the tools of Pillar 1. The Basel 2 framework does provide Pillar 2 as a way to deal with such risks. Banks in the region, however, have little incentive to assess this risk on their own. Supervisors will have to insist that the banks do so and set aside the appropriate amount of capital. The relatively large judgmental element of Pillar 2, however, requires a degree of supervisory assertiveness that is difficult to find in some countries in Asia.

In what follows, we first characterize the nature of cross-border and foreign bank activity in East Asia. In the next two sections, we then describe the implementation of Basel 2 in the region and explain why Pillar 2 is so important in dealing with cross-border systemic risk, and why this pillar is nonetheless difficult to apply in the region.

Cross-border banking in East Asia

The financial crisis which erupted in 1997 changed the landscape of international banking in Asia. While some countries remained insulated from the crisis, others experienced large cutbacks in domestic and foreign bank credit. This section builds on previous surveys[2] of the crisis, and provides a broad overview of recent developments in foreign banks' activities in Asia. We first survey the size Asia's debt markets, and then propose simple indicators which capture the degree of foreign bank participation in individual countries. These indicators imply that, overall, foreign bank participation remains low in many Asian countries relative to other regions, although there is considerable heterogeneity across countries. Despite this, in several countries, the presence of foreign banks appears to have stimulated growth in certain market segments, particularly consumer finance.

Banking markets differ considerably across countries in Asia. Indeed, "Asia" can be defined broadly, for example using a strict geographic definition, or more narrowly by grouping countries with similar levels of economic development. The analysis in this section is based on one such classification, motivated by broad similarities across countries and data availability. At one end of the spectrum are Asia's *advanced economies*, typified by Australia, Japan and New Zealand. At the other are Asia's emerging economies, or *emerging Asia*, which includes China, India, Indonesia, Korea, Malaysia, the Philippines, Thailand and Taiwan (China).[3] The regions' *financial centers*, Singapore and Hong Kong, play an important role in the distribution of credit throughout emerging Asia by hosting the regional operations of many foreign banks. While the primary focus of this section is to assess cross-border banking in emerging Asia, it does highlight along the way the special role of these financial centres.

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[2] See for example Bustelo (1998), Coppel and Davies (2003) and Lubin (2002).

[3] Hereinafter, Taiwan.

For many emerging markets, *loan financing* has become relatively less important than *bond financing* over the last decade. However, banks remain the key source of *debt* financing for non-banks through their extension of loans and holding of securities. This is especially true in emerging Asia, where debt markets are considerably larger than those in Latin America or emerging Europe. Total credit provided by banks (both domestic and foreign) to non-bank borrowers in emerging Asia has risen as a share of aggregate GDP since at least 1995, and now stands at close to 120%.[4] This is in contrast to the relatively flat ratios of 40-50% in Latin America and emerging Europe over this same period.[5]

The 1997 crisis is a useful point of departure in analyzing banking flows in emerging Asia. After the Thai baht collapsed in July 1997, credit to non-bank borrowers in emerging Asia contracted significantly during the rest of the year. By end-1997, the stock of outstanding corporate and government bonds had fallen by 20%, largely reflecting the depreciation of local currencies relative to the US dollar. Total credit provided by banks fell by 10% over this same period, reflecting both local currency depreciation and the unwinding of short-term positions. Debt markets in China, Taiwan and India remained relatively insulated from the crises, as did those in the region's more advanced economies. In contrast, many of the other emerging economies, in particular Indonesia, Korea and Thailand, have only recently shown signs of credit growth.

The crisis affected both domestic and foreign headquartered banks. Short-term claims, primarily cross-border loans to corporates and banks in the region, had been on the rise since the mid-1980s (Graph 1).[6] This was particularly evident in Korea, Thailand and Indonesia, which saw a large run up in credit from Japanese, US and European banks prior to the crisis. After substantial unwinding in the wake of the crisis, US, UK and German banks' lending to the region started to grow within three years, while the lengthy retrenchment by Japanese banks has only recently bottomed out.

The crisis led to significant changes in how credit is channeled in emerging Asia, including the *direction* of net flows vis-à-vis these borrowers. These changes are particularly evident in the regional operations of banks operating in Hong Kong and Singapore. Foreign banks dominate cross-border lending from these centers, accounting for over 80% of their total cross border claims.[7] In the three years prior to the crisis, roughly half the total worldwide cross-border credit to borrowers in emerging Asia was provided by banks located in these financial centres (Graph 2, left-hand panel). This share has since fallen to roughly 35%. Banks in these financial centers are now a hub through which capital is exported from the emerging Asian countries. Total net claims of banks located in Hong Kong and Singapore vis-à-vis residents in emerging Asia hit a high of $101 billion in the second quarter of 1997. Net claims have subsequently turned negative, reflecting the recycling of emerging Asia's current account surpluses through greater deposits placed in banks in these financial centers (Graph 2, middle panel).

With the change in the role of the region's offshore financial centers after the crisis, foreign banks' region-wide operations evolved. Most noticeable is the expansion of foreign banks' local positions.

[4] Total bank financing to non-bank borrowers (government, corporate and household) in a particular country is the sum of domestic credit (DC), which includes claims (loan and debt security claims) of resident banks, and BIS reporting banks' cross-border claims on non-banks (XB).

[5] Bond markets in emerging Asian countries are also large in absolute terms, with total outstanding bonds (both international and domestic issues) for India, China and Korea ranking with Mexico and Brazil amongst the top five for emerging economies. However, emerging Asia's bond market in aggregate is similar to that in other emerging market regions when measured as a share of GDP (at roughly 35%).

[6] In the BIS consolidated statistics, claims comprise financial assets such as loans, debt securities and equities, including equity participations in subsidiaries. Claims refer to on-balance sheet financial assets, and exclude derivatives and other off-balance sheet transactions. Financial assets of branches and subsidiaries in which the parent bank has a controlling interest (typically 50% or more of the outstanding shares) are consolidated with the assets of the parent bank. Intragroup positions, such as loans from the head office to a foreign office, are mostly netted out. In principle, all claims are valued at market prices, but in practice many instruments are valued at either face or cost price.

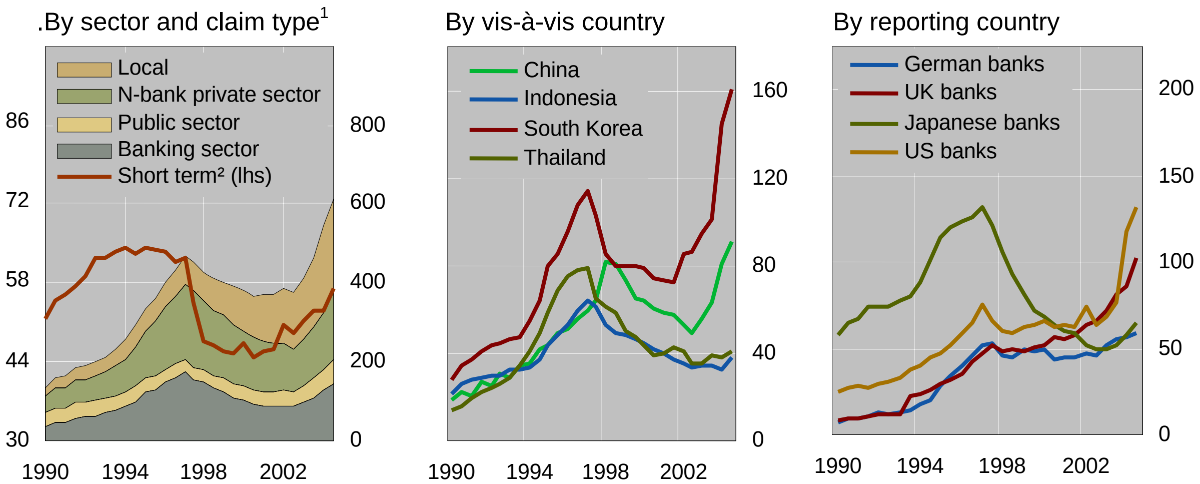
[7] Note that these figures include cross-border credit to all borrowers worldwide (as opposed to borrowers in only emerging Asia), as the BIS data does allow for a vis-à-vis country breakdown by parent bank for individual reporting countries. In Hong Kong, Japanese banks had the largest cross-border positions in 1997, but have since fallen behind UK and US headquartered banks.

During the 1990s, traditional cross-border lending gave way to other types of business, as global banks became increasingly active in derivative and capital markets.[8] Furthermore, many banks invested heavily in foreign subsidiaries and branches, in the process greatly expanding their locally funded operations. While this process started earlier in Latin America and emerging Europe, it was not until after the crisis that global banks' local positions in Asia took off. BIS reporting banks' local currency claims booked by their local affiliates grew from about 15% of their total foreign claims on emerging Asia in 1996 to nearly 40% in 2004 (Graph 1).

However, emerging Asia differs from other emerging regions in several important respects. With the exception of a few pockets of activity, foreign bank activity has remained relatively low in emerging Asia. This is evident in two simple measures designed to capture the degree to which foreign banks have made inroads into domestic banking markets.[9] The first measure captures the importance of direct cross-border, or "offshore", banking for a national lending market, financing which is typically missed by domestic banking statistics. The measure is calculated as the ratio of cross-border (*XB*) to total bank credit to non-banks, or *XB*/(*XB*+*DC*). The denominator of this ratio is the sum of cross-border (*XB*) and domestic bank credit (*DC*) to non-banks, and includes both loan and security claims. The second measure captures foreign bank participation more fully by incorporating foreign banks' local lending in local currency. It is calculated as the ratio of BIS reporting banks' cross-border *and* locally extended claims to total bank credit to non-banks, or *(INT+LL)/(XB+DC)*. In the numerator, international claims (*INT*) include cross-border and local claims in foreign currencies on non-banks. Local claims in local currencies, *LL*, are not broken down by sector, and thus also include lending to other banks. Hence, the measure is presented as a range – with *LL* included and excluded from the numerator – in the graphs below. A best-guess point estimate within this range is calculated by applying to *LL* the sectoral breakdown available for international claims (*INT*).

Foreign claims on Asia-Pacific

In billions of US dollars



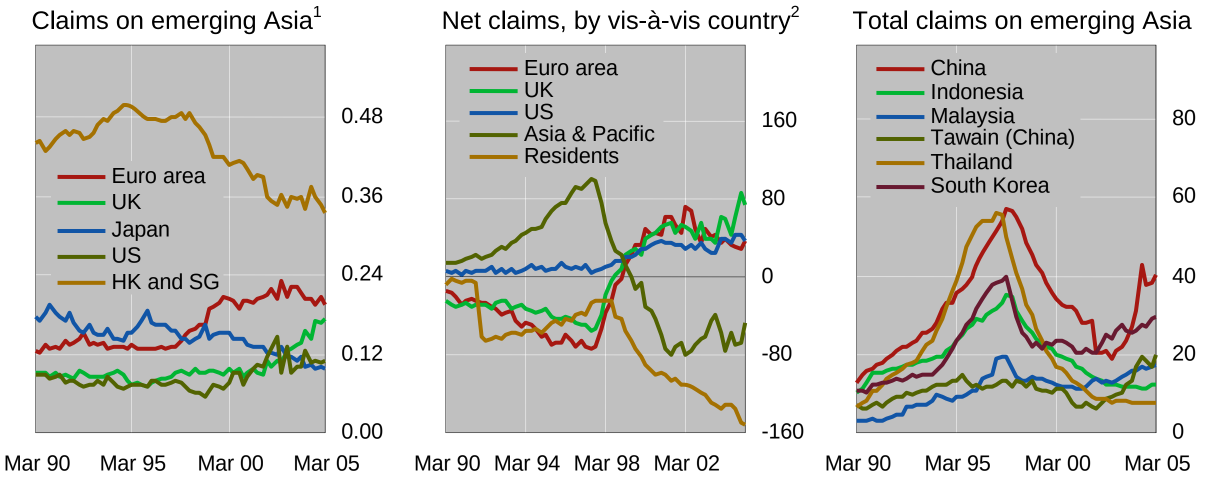
[1] Foreign claims is composed of *international* claims (cross border claims and local claims in foreign currency) and claims in local currency booked by reporting banks' local affiliates. A sectoral breakdown is available only for international claims. [2] As a share of total international claims; in per cent.

Source: BIS. Graph 1

[8] See McGuire and Wooldridge (2005), McCauley et al (2002) and Domanski et al (2003).

[9] These measures, discussed in detail in the June and September 2005 *BIS Quarterly Reviews*, capture the positions of BIS reporting banks only. This can lead to an underestimation of foreign bank participation in a particular country if banks located in non-reporting countries have a significant presence.

Cross-border claims of banks in Hong Kong and Singapore



[1] As a share of total BIS reporting countries' cross-border claims on emerging Asia. [2] Total claims minus total liabilities of all banks in Hong Kong and Singapore, by vis-à-vis country.

Source: BIS. Graph 2

These measures suggest that foreign banks supply a smaller share of bank credit in emerging Asia than in Latin America and emerging Europe (Graph 3). Cross-border, or "offshore" banking, captured by the first measure, has remained mostly flat in all three regions, at near 20% of total bank credit in Latin America and emerging Europe, but below 10% in emerging Asia. With the growth in local claims in local currencies, the estimated *total* participation of foreign banks is higher in each region, but still relatively low in emerging Asia. Even though foreign banks' exposure to emerging Asia is comparatively large in absolute terms,[10] these banks account for only 7% of total bank credit in the region, in contrast to an estimated 40-45% in emerging Europe and Latin America.

Nonetheless there is considerable heterogeneity in the degree of foreign bank participation across countries in emerging Asia. This partially reflects differences (across countries) in the capital controls and restrictions on foreign lending, although the relationship is murky (see Annex Table). For example, capital controls and regulations in China have effectively shut out foreign banks, while foreign bank participation in India has just become more difficult.[11] In contrast, regulation on foreign banks' operations in Thailand, Malaysia, the Philippines and Korea are relatively less binding. The measures discussed above are broadly consistent with this. China stands out with exceptionally low foreign bank penetration, at less than 2% of the total credit to non-banks in the country (Graph 4).[12] Foreign bank participation is relatively low in other emerging Asian countries as well, at an estimated 10% in Korea, India and Taiwan. In contrast, Malaysia (at 36%) and the Philippines (at 26%) are on par with emerging markets in other regions.

[10] BIS reporting banks' foreign claims (ultimate risk basis) on all sectors in Asia-Pacific stood at $600 billion in the first quarter of 2005, compared with $495 billion vis-à-vis emerging Europe and $515 billion vis-à-vis Latin America.

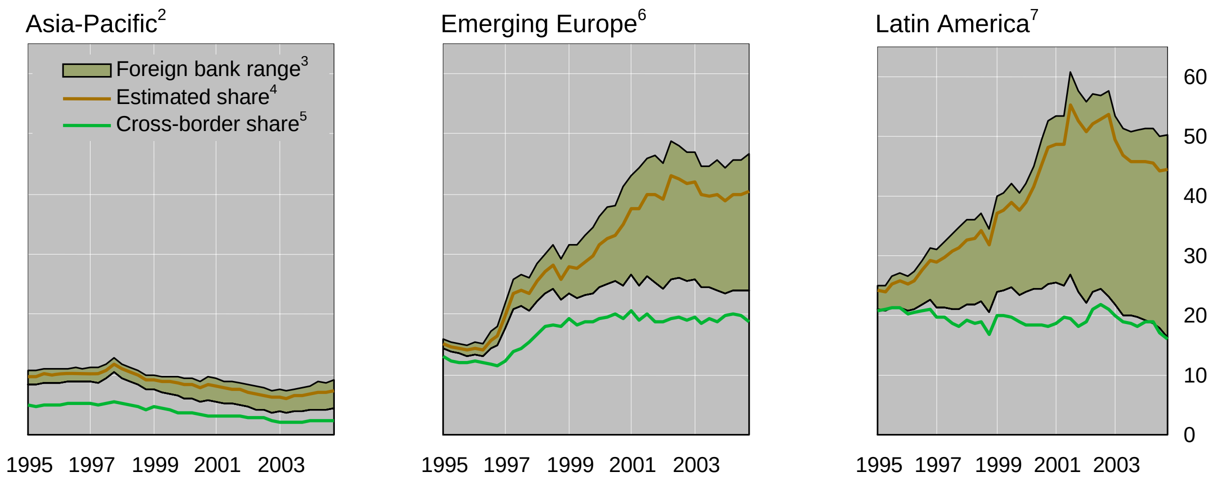
[11] Bank lending accounted for 98.8% of all business financing in China in the first quarter of 2005, compared to 93.8% in the same period last year and a low of 75.9% for the whole of 2001 (Financial Times 28 May 2005). The Reserve Bank of India announced in February 2005 that foreign banks cannot acquire Indian banks, and that their Indian subsidiaries will not be able to open branches freely. These restrictions will remain until 2009 ("Welcome, yet unwelcome", The Economist, 10 March 2005)

[12] In absolute terms, BIS reporting banks' exposure to China is large. Foreign claims (ultimate risk basis) stood at $80 billion in the fourth quarter of 2004, fourth behind Mexico, Brazil and Poland. Just over 10% of these claims are accounted for by local claims in local currency. Moving forward, foreign bank participation in China should expand as (a) the PBRC develops a uniform set of rules governing domestic and foreign banks (b) the privatisation of major Chinese banks moves forward, possibly putting substantial equity interests in the hands of foreigners.

The lifting of restrictions on FDI in some countries contributed to the rise in foreign banks' activities.[13] Prior to the Asian crisis, many emerging Asian economies encouraged FDI in manufacturing, which helped to fuel export led growth, but restricted FDI in the service sector. As these restrictions were loosened, foreign banks moved into sectors that were previously off limits, and started to compete directly with domestic banks (Coppel and Davies (2003)).With the retrenchment of Japanese banks over the 1990s, US and European headquartered banks have emerged as the dominant foreign banks in the region (Graph1, right-hand panel). In particular, Citibank is the largest foreign bank in many emerging Asian countries, while HSBC, Standard Chartered, Deutsche Bank and ABN Amro also have a significant presence in the region.[14]

The widening "bands" of the foreign bank participation measures in Graphs 3 and 4 highlight the growth in BIS reporting banks' local positions. Although the BIS data do not permit a finer analysis of these local currency claims, data from the CEIC Asia database can shed light on the nature of these operations in individual countries. Consistent with the measures presented above, foreign banks account for a relatively small, but in some countries increasing, share of total *domestic* banking assets (Graph 5). In particular, foreign banks control roughly 9% of total domestic banking assets in Korea, up from 6% three years ago. Similarly, foreign banks account for roughly 10% of domestic bank assets in Taiwan and Indonesia, from 5% and 8% respectively in 2000.[15]

Foreign bank participation in emerging markets, by region[1]



[1] Data up to the fourth quarter of 2004. [2] China, India, Indonesia, Korea, Malaysia, the Philippines, Thailand and Taiwan (China). [3] The lower bound is the ratio of international claims on non-banks (which include local claims in foreign currency) to total credit to non-banks (domestic credit plus cross-border claims). The inclusion of local claims in local currency (on all sectors) in the numerator yields the upper bound. [4] Implied foreign bank share from applying the sectoral breakdown available for international claims to local currency claims. [5] Ratio of BIS reporting banks' cross-border claims on non-banks to total credit to non-banks. [6] The Czech Republic, Hungary, Poland, Russia and Turkey. [7] Brazil, Chile, Mexico and Venezuela.

Sources: IMF; BIS calculations. Graph 3

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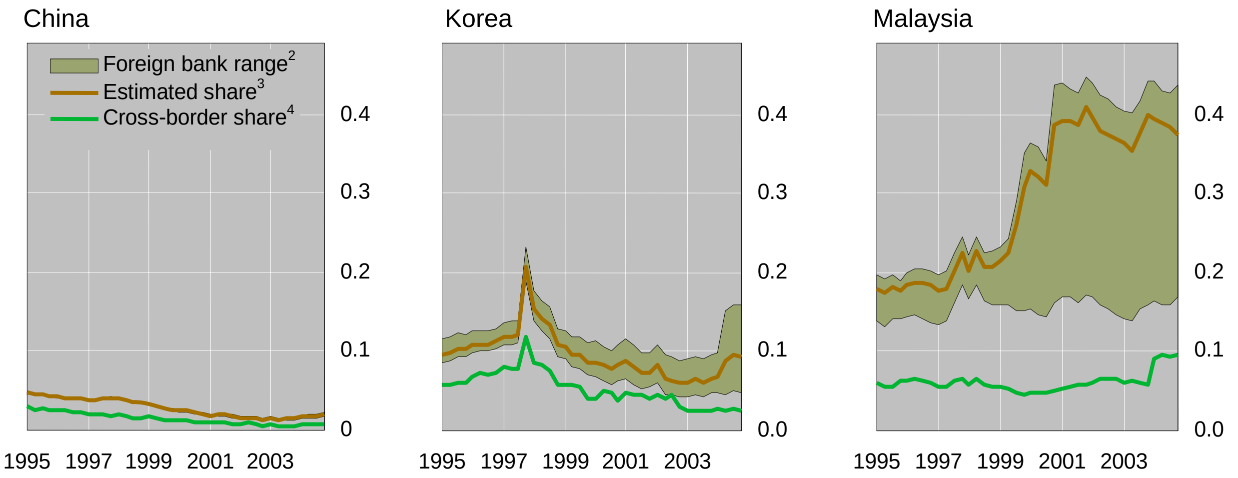
[13] See Domanski (2005) for a detailed discussion of financial sector FDI in emerging markets.

[14] The CEIC database indicates that Citibank accounts for an estimated 1-2% of total bank assets in Indonesia, India and Thailand, and as much as 8% in the Philippines. HSBC has a similar presence in Indonesia and India, but has a much smaller presence in the Philippines.

[15] These measures depend critically on the threshold used in determining foreign ownership of domestic banks. For example, Lim (2004) points out that in the case of Korea, foreign banks' share of domestic banking assets jumps considerably when a 40% rather than 50% threshold is applied.

Foreign bank participation in China, Korea and Malaysia[1]



[1] Data up to the fourth quarter of 2004. [2] The lower bound is the ratio of international claims on non-banks (which include local claims in foreign currency) to total credit to non-banks (domestic credit plus cross-border claims). The inclusion of local claims in local currency (on all sectors) in the numerator yields the upper bound. [3] Implied foreign bank share from applying the sectoral breakdown available for international claims to local currency claims. [4] Ratio of BIS reporting banks' cross-border claims on non-banks to total credit to non-banks.

Sources: IMF; BIS calculations. Graph 4

The importance of *intra-regional* credit within emerging Asia is more difficult to assess. Very few emerging economies report international banking statistics to the BIS. Banks located in those emerging Asian countries that do report data – India and Taiwan – have relatively small cross border positions. For example, banks resident in Taiwan account for a mere $6 billion out of the $442 billion in total cross-border claims on emerging Asia in the BIS data. Similarly, the cross-border claims of banks in India vis-à-vis emerging Asia are less than $1 billion.[16] Data on syndicated loan structures suggests that cross-border lending by banks headquartered in the region is a small share of the total. In contrast to Latin America and emerging Europe, where US and European headquartered banks have provided the bulk of syndicated credit, regional banks have been the largest providers in emerging Asia. However, most of this syndicated credit has been essentially domestic lending, for example Thai banks participating in syndicates for borrowers in Thailand.[17] Most of this business has taken place in China, Korea and Taiwan, with the banks (and borrowers) of other Asian countries participating significantly less in syndicated loans. The growth in foreign banks' local currency operations in many countries has gone hand-in-hand with changes in the asset composition of their balance sheets. For example, since the Asian crisis, foreign banks operating in Korea, Taiwan and Thailand have channelled funds into securities and other assets (Graph 6), leading to a fall in the share of loans in their total (host-country) assets.

Loans themselves have shifted away from the traditional customer base, ie manufacturers, and towards consumer and mortgage lending in many countries (Graph 7). In Thailand for example, despite a recent pickup, lending for construction, manufacturing and commerce trended downward between 1997 and 2004. In contrast, consumer lending in Thailand grew by roughly 30% over this same time period. While foreign banks in Thailand have small positions (relative to domestic banks) in the mortgage market, they have been much more active in other areas of consumer finance, for

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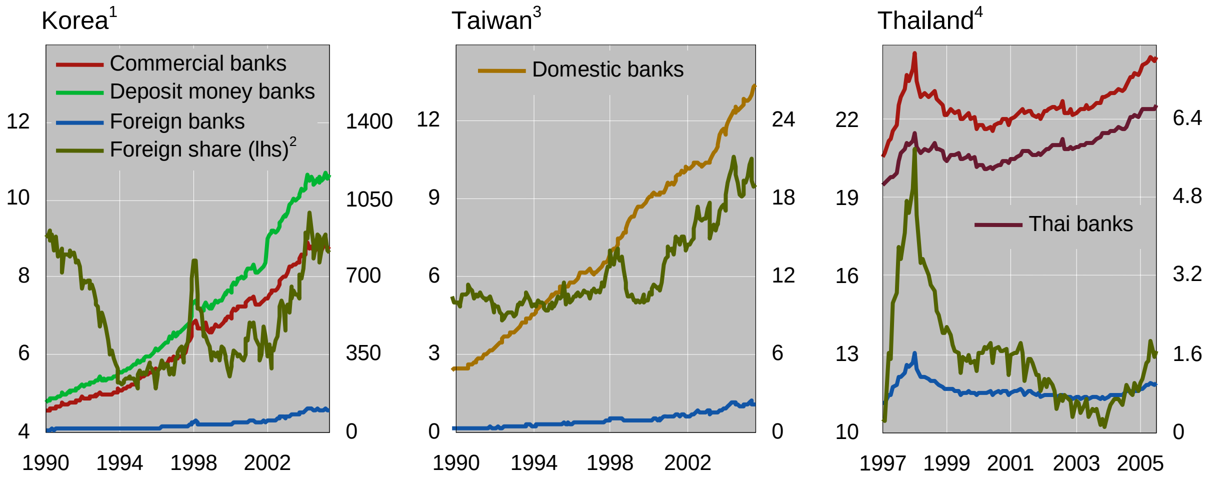
[16] Taiwanese banks' consolidated foreign claims have trended upwards since mid-2002. This is primarily the result of greater credit to the United States and euro area, while total credit to borrowers in emerging Asia has remained roughly flat at $8 billion.

[17] Banks headquartered in emerging Asia have provided over 50% of the total syndicated loans to non-banks in the region over the 1999-2005 period. This share has risen since the Asian crisis, primarily reflecting the retrenchment of Japanese banks. See the box by Blaise Gadanecz in the September 2005 *BIS Quarterly Review* for discussion.

Bank assets in Korea, Taiwan and Thailand



[1] In trillion of Korean won. [2] For Korea as a share of total assets of deposit money banks, for Taiwan as a share of total banking assets and for Thailand as a share of commercial banks' total assets; in per cent. [3] In billions of New Taiwan dollars. [4] In trillions of Thai baht.

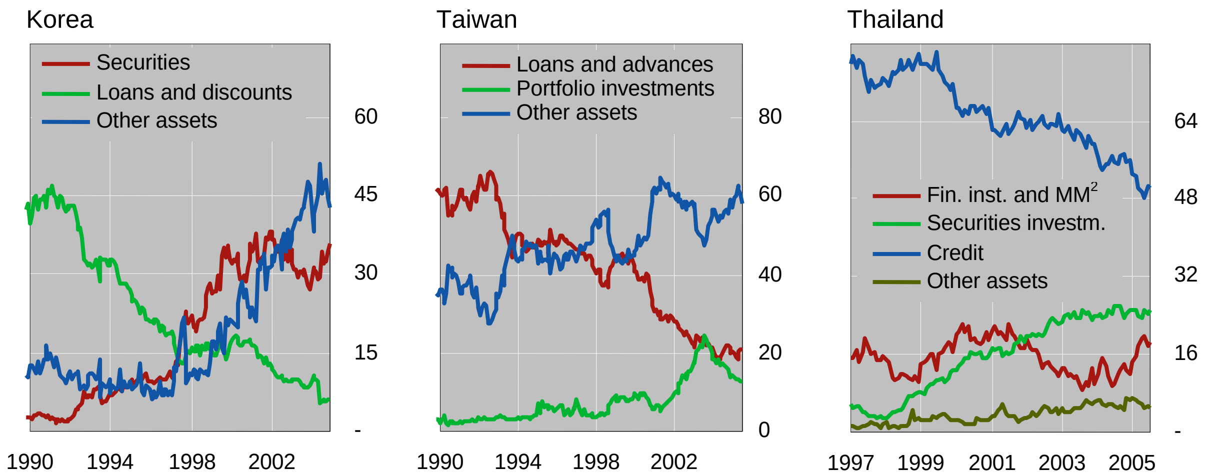
Source: CEIC Asia Database. Graph 5

example in credit card loans where they accounted for 35% of the total in 2004 (down from 41% in 1999). As in Thailand, consumer lending in Indonesia and the Philippines has also picked up since 2000. Foreign banks' consumer loans have grown to 24% of their total credit to borrowers in Indonesia in 2005, from roughly 6% in 2000. Overall, consumer loans in Indonesia grew at an annual rate of 9% in 2004. Similarly, outstanding loans to households in the Philippines have more than doubled since 1998. Credit card financing, a segment where foreign banks control more than 70% of outstanding loans, almost tripled between 1998 and 2004, to reach 37% of total consumer loans.

Basel 2 issues in East Asia

Most Asian supervisory authorities have embraced the Basel 2 framework as something that will bolster reforms after the Asian crisis. The framework is seen as a way to encourage banks to move from collateral-based lending to "risk management".

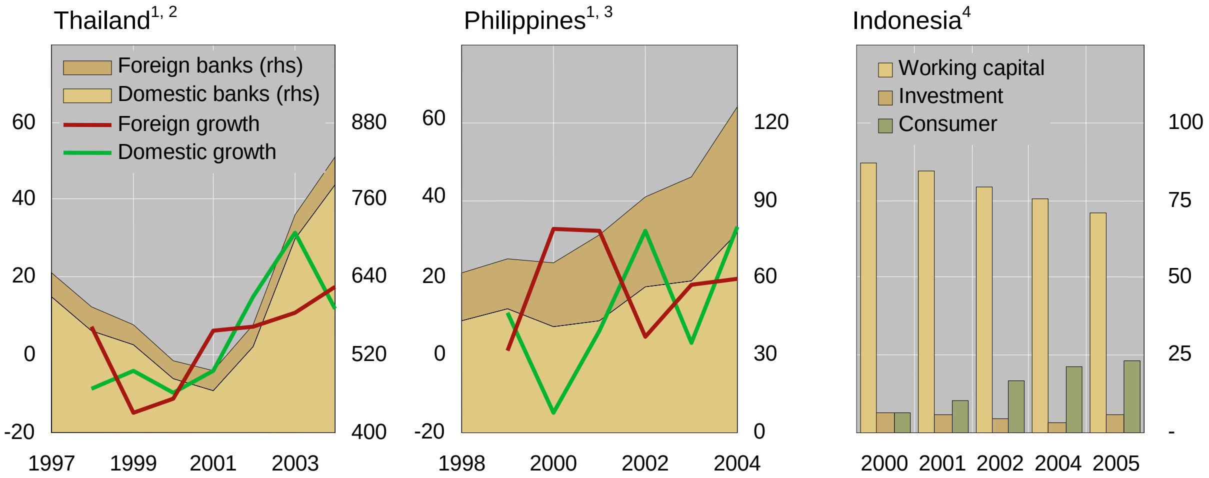
Foreign banks' assets in Korea, Taiwan and Thailand[1]



[1] As a share of foreign banks' total domestic assets; in per cent. [2] Financial institutions and money market.

Source: CEIC Asia Database. Graph 6

Consumer lending in Thailand, the Philippines and Indonesia



[1] Growth rates in per cent. [2] Stocks in billions of Thai baht. [3] Stocks in billions of Philippine peso. [4] As a share of foreign banks' total locally extended loans to borrowers in Indonesia; in per cent.

Sources: National sources. Graph 7

The Basel 2 framework consists of three mutually reinforcing "pillars". Pillar 1 aligns a bank's minimum capital requirements more closely with its actual risks as the bank measures them. Pillar 2 assigns a bank the further responsibility of assessing the overall adequacy of its capital. Finally, Pillar 3 encourages market discipline through financial disclosure. In contrast to the 1988 Accord, the new framework gives banks considerable leeway in choosing an approach that would achieve the objective of making minimum regulatory capital more sensitive to risk. Indeed, a key element of the new framework is greater reliance on a bank's own risk quantification, especially on internal rating systems, in the calculation of capital charges for credit risk.

An important feature of Pillar 1 is that it explicitly allows for different approaches to measuring risk, with the more advanced approaches designed to lead to somewhat smaller capital charges for the same exposure. The least sophisticated approach to measuring credit risk is the Standardised Approach (SA), which simply modifies the approach of the 1988 Accord. The advanced approaches are the Internal Ratings Based Approach (IRBA)[18] for credit risk and the Advanced Measurement Approach (AMA) for operational risk. Both methods allow banks to use their own estimates for calculating minimum regulatory capital.

Pillar 2 requires supervisors to evaluate a bank's own risk assessment. This review encompasses a bank's internal capital allocation practices and any risks not covered under Pillar 1. It is supposed to cover, for example, interest rate risk in the banking book. Hence, Pillar 2 makes greater demands on supervisory discretion and judgment and thus places greater importance on the supervisor's technical expertise and experience.

Most bank regulators in East Asia have expressed an intention to implement Basel 2 in the near future. As shown in Table 1, Australia, Hong Kong, New Zealand and Singapore are the quickest, with plans to implement the advanced approaches in the framework in 2007-08 along with most of the G10 countries that decided on the framework. Malaysia, the Philippines and Thailand plan to implement in 2009. China plans to implement "Basel 1 ½" – that is, Basel 1 plus Pillars 1 and 2 of Basel 2 – by 2007.

[18] The risk parameters of the IRBA are the probability of default (PD), loss given default (LGD), the exposure at default (EAD), and maturity (M). The Foundation IRB approach (FIRBA) requires banks to only estimate PDs for their internal rating grades, with the Basel Committee providing supervisory estimates for all other risk parameters.

Table 1

Implementation of the New Framework (NF)– Expected Approaches in selected Asian Economies[1]

	NF	**Credit Risk - SA**	**Credit Risk - FIRB**	**Credit Risk - AIRB**	**Op Risk - BIA**	**Op Risk - SA**	**Op Risk - AMA**	**Specifics**
AU	All banks, 2007	2007	2007	2007 Combined with AMA, IMA (MR)	2007	2007	2007	All approaches at the same time
CN	Basel 1.5	2007, 1988 Accord	No	No	No	No	No	Basel 1 plus Pillar 2 and 3
HK	All banks, 2006	2006	2006	2007	2006	2006	No	Basic approach, more flexibility for FIRB banks
ID	All banks, 2008	2008	2010	2010	2008	2008	Not speci-fied yet	Market risk in parallel with CR (SA) 2008
IN	All banks, 2007	Mar 2007	Not speci-fied yet	Not speci-fied yet	Mar 2007	Mar 2007	Not speci-fied yet	Two phases, 2007 and later
JP	All banks, Mar 2007	Mar 2007	Mar 2007	Mar 2008	Mar 2007	Mar 2007	Mar 2008	4% ratio for domestic banks
KR	All banks, 2007	2007	2007	2007	2007	2007	2007	Some specifics not yet clear
MY	All banks, 2007	2007	2009	Not speci-fied yet	2007	2007	Not speci-fied yet	Two phases, 2007 and 2009
NZ	All banks, 2007	2007	2007	2007 Combined with AMA, IMA (MR)	2007	2007	2007	All approaches at the same time
PH	All banks, 2006	2006	2009	2009	2006	2006	2009	Some risk weights earlier adopted; Basel 1 type approach
SG	All banks, 2006	2006	2006	2007	2006	2006	2007	Flexibility in use test possible
TH	All banks, 2008	2008	2008	2009	2008	2008	2009	Encouraging improving risk management
TW	All banks, 2006	2006	2006	2007	2006	2006	2007	Encouraging on IRBA

Note: AUS = Australia; CN = China; HK = Hong Kong; ID = Indonesia; IN = India; JP = Japan; KR = Korea; MY = Malaysia; NZ = New Zealand; PH = Philippines; SG = Singapore; TH = Thailand; TW = Taiwan.

[1] Dates indicate either year end or month end.

Sources: National authorities and authors' own estimates.

The schedules depend largely on the amount of time the authorities think their banks will need to gather the data required by the advanced approaches. Nonetheless, these plans have tended to be quite ambitious. This may be in part because of a perceived urgency to enhance risk management by

their banks. It may also be because of a desire to keep to a minimum the periods in which home and host supervisors apply different approaches. Finally, it may be because of the peer pressure the different supervisors in the region exert on one another.[19] The advanced approaches are perceived to be especially advantageous in mortgage and consumer loans. Hence, foreign and domestic banks are not only trying to shift their portfolios towards such loans but also racing to build the data bases that will allow them to apply the advanced approaches as soon as their supervisors allow them.

An important cross-border banking issue in Asia, as it is elsewhere, is the cooperation and division of labour between home and host supervisors. As pointed out by Bollard (2004), two supervisors may have different mandates, one to protect depositors, the other to maintain the soundness and efficiency of the financial system. This is an especially difficult issue when a supervisor is dealing with a foreign branch or subsidiary that is systemically important in the host country but not in the home country. In times of stress, the differences are likely to be most pronounced: two supervisors may have different views on whether the problems of a distressed branch or subsidiary of a foreign bank are systemic, and if support is required, who provides it.

Implementing Basel 2 heightens the need for cross-border cooperation. In 1992, the "Basel Concordat" recommended that the home supervisor be responsible for a banking group as a whole and the host supervisor for the legal entities within its jurisdiction. This does not solve all problems. In Asia, the host supervisors implementing the advanced approaches later than are the home supervisors will have to deal with the fact that they will in effect often be requiring foreign banks to calculate capital twice, once under the standardized approach and again under the advanced approaches. In the case of the Philippines, for example, large foreign banks are expected to adopt the standardized approach even while they consolidate their risks at the global level using more advanced approaches. When home and host supervisors are both implementing the advanced approaches, avoiding double calculations of capital will require the two supervisors to somehow agree on how to validate the specific models used by a bank.

Cooperation among supervisors is paramount in Hong Kong, where the Hong Kong Monetary Authority (HKMA) is both an important host and an important home supervisor. The required information flows between all the foreign home and host countries can be quite demanding. The HKMA plans to implement all approaches of the new framework within the agreed timetable, with the exception of the provision of the AMA for operational risk. In some instances, the entry criteria for the IRB approach being adopted by the HKMA may differ from those adopted by the relevant home supervisor. The HKMA has engaged in discussions with the home supervisors of the major foreign banks to harmonise requirements and build in flexibility so that these banks can adhere to their home supervisory requirements in most circumstances.

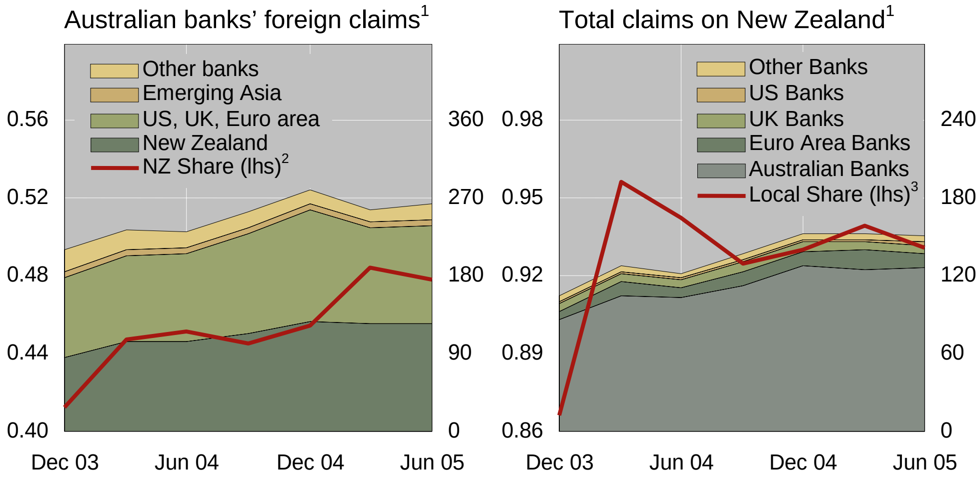
Internationally active banks with significant subsidiaries in Hong Kong which will most likely be applying the AMA for operational risk on a group-wide basis but be required to use a simpler approach for the Hong Kong bank. On the face of it, this will place a regulatory burden on the bank involved, requiring a double calculation of regulatory capital. However, the HKMA is understood to be planning to take make adjustments under Pillar 2 for the fact that a bank is operating on AMA. When moving to the advanced approaches, the HKMA also requires 75% coverage of credit-risk weighted assets, and this may override less stringent requirements on two sides – the banks' home and host supervisors.

Like the HKMA, the regulatory authorities in Australia and New Zealand face an unusual set of home-host regulatory issues. Both economies are highly bank dependent. However, this reliance is more pronounced in New Zealand, with banks holding roughly three quarters of financial system assets as opposed to roughly half in Australia. At present, banks with head offices in Australia own roughly 85% of New Zealand's banking assets, despite the fact that Australia does not have large, systemically-important foreign banks. As shown in Graph 8, exposure to borrowers in New Zealand constitutes more 50% of their total foreign exposure on an ultimate risk basis, primarily through their local positions in local currency. From New Zealand's perspective, Australian banks account for over 90% of total foreign claims on the country.

[19] All EMEAP member countries (except New Zealand) and India participated in the third quantitative impact study (QIS 3) carried out by the BCBS.

The Australia-New Zealand link

In billions of US dollars



[1] Foreign claims is composed of *international* claims (cross border claims and local claims in foreign currency) and claims in local currency booked by reporting banks' local affiliates. [2] Foreign claims on residents of New Zealand as a share of Australian banks' total foreign claims. [3] Local currency claims extended by offices of foreign banks in New Zealand as a share of their total foreign claims (immediate borrower basis) on New Zealand.

Source: BIS

Graph 8

Bilateral discussions over the past two years have focused on closer integration in trans-Tasman banking regulation and supervision. Among the issues to be resolved are depositor preference, crisis resolution and capital allocation. Discussions have focused on whether systemically-important banks in New Zealand should be required to be locally incorporated, and whether they must be able to function on a stand-alone basis in a banking crisis. One question is whether the local board in New Zealand can be made to act in the interest of the New Zealand entity. The Reserve Bank of New Zealand (RBNZ) now harmonises its approach with that of the Australian Prudential Regulation Authority (APRA), which insisted at an early stage that their four major banks use the advanced approaches. Banks operating in New Zealand, when meeting certain criteria, will now have the option to use the advanced approaches for credit and operational risk.[20] The "Terms of Engagement" between APRA and RBNZ contains each supervisor's right to set its own minimum levels of capital while trying to minimise the cost for implementation. It goes even further by requiring both institutions to conduct joint supervisory reviews in both jurisdictions and to share necessary information.

Pillar 2 and the risk of another Asian crisis

Pillar 2 serves as an overarching supervisory escape clause. In principle, Pillar 1 focuses only on credit, market and operational risks faced by an individual bank as a consequence of *the individual items in its own asset portfolio*. To the extent that there are risks not satisfactorily addressed by Pillar 1, banks and supervisors are supposed to turn to Pillar 2. For example, if the portfolio lacks diversification – ie has "concentration risk" – this would be an issue for Pillar 2.

Systemic risk is also supposed to be addressed under Pillar 2. De Bandt and Hartmann (1999) point out that "at the heart of systemic risk are contagion effects" and the concept "includes financial instabilities in response to aggregate shocks." Procyclicality in financial systems can lead to biases in the measurement of risk. Borio et al (2001) argue that risks to the financial system tend to build up during economic booms, and these risks may be underestimated by Pillar 1. Recessions may lead to

[20] See A Bollard, Governor, Reserve Bank of New Zealand, "Address to the Australasian Institute of Banking and Finance", Sydney, 23 March 2005.

bad loans and an increase in measured risk even when there really is no such increase in risk. If properly applied, Pillar 2 should allow banks and supervisors to recognize the build up of risk during booms and to ignore what may seem to be a rise in risk during busts.

Moreover, systemic risk may not be entirely exogenous. Archarya and Yorulmazer (2002) show that banks have an incentive to herd – ie to hold "correlated portfolios" – because if there is a problem, the government is more likely to bail them out if the problem is systemic. In other words, a bank is more likely to take excessive risk if other banks are taking the same kinds of risk. If something goes wrong, the bank is likely to fail along with other banks and the government is more likely to step in with a rescue package. This is a moral hazard that can only be addressed under Pillar 2.

Banks in Asia have already shown themselves to be vulnerable to systemic risks. Moreover, banks in the region face an important cross-border dimension to these risks. The "contagion effects" to which De Bandt and Hartmann refer are often regional in nature. The region is vulnerable to contagion because of capital flows, which tend to be highly correlated and procyclical. Alba et al (1998) suggest that the buildup of risk leading up to the 1997 Asian crisis was partly a result of "procyclical macroeconomic policy responses to large capital flows". Kaminsky et al (2004) have documented such procyclicality for emerging markets in general: "periods of capital inflows are associated with expansionary macroeconomic policies and periods of capital outflows with contractionary macroeconomic policies". In an earlier paper, Kaminsky et al (2003) have also pointed out that contagion tends to arise when a surge in capital flows is followed by a shock.

Can Pillar 2 deal with contagion risk? Compared to Pillar 1, Pillar 2 relies to a high degree on judgment and supervisory discretion. To assess cross-border systemic risks, banks in the region would need to undertake stress tests for various scenarios of crisis and contagion. For the same reasons that banks would herd in the Archarya-Yorulmazer world, there is little incentive for banks to assess such systemic risks on their own. Supervisors would have to make them do so. In some Asian countries, this would require a high degree of assertiveness on the part of supervisors. For some of these countries, however, it is hard to imagine a bank examiner telling the bank's risk officer to account properly for a qualitative, judgmental type of risk. When it is a question of the bank examiner's view against that of the bank's risk officer, it is not clear that the examiner's view will prevail.

In a regional crisis involving foreign banks, cooperation will be important not only between host supervisors in the region and home supervisors outside the region but also between just the host supervisors within the region. It will be important that the various Asian supervisors be prepared for such an eventuality.

Conclusion

While the presence of foreign banks in Asia remains limited, these banks are making their presence felt in some of the fast-growing market segments. These segments include those where the advanced approaches under Basel 2 are most advantageous. The supervisory authorities are finding themselves having to cope with home-host issues and with the perceived need to give their domestic banks time to collect the data needed to implement the more advanced approaches and thus be able to compete with foreign banks. Another important cross-border issue for banking systems in East Asia has been the question of how to deal with the systemic risk of contagion. While the Basel 2 framework would point to Pillar 2 as a way to deal with such risks, banks in the region may have little incentive to assess this risk on their own. Supervisors may need to carry the burden of assessing this risk and requiring banks to set aside the appropriate amount of capital. The large judgmental component of Pillar 2, however, calls for a degree of supervisory assertiveness that may be absent in some countries in Asia.

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Annex Table

Country	Domestic versus foreign banks	Foreign subsidiaries versus foreign branches	Capital requirements for domestic banks, foreign subsidiaries, and foreign branches
Australia	Domestic banks and foreign banks can engage in the same type of activities, however, foreign bank branches are required to confine their deposit-taking activities to wholesale markets. Foreign bank branches also are not subject to depositor protection arrangements in Australia and must disclose this.	Except for deposit-taking, both can engage in the same types of activities. A foreign bank can also operate as both a branch and a subsidiary.[1]	Only locally-incorporated banks are required to maintain minimum capital requirements. Foreign bank branches are not required to maintain endowed capital. As such, only locally-incorporated banks are subject to the minimum risk-based capital adequacy ratio. Foreign branches are expected to meet comparable capital adequacy standards, which must be consistent in all substantial respects with the Basel Capital Adequacy Framework, as required by their home country supervisor.
China	Different set of rules govern domestic and foreign banks. However, it is CBRC's intention to develop uniform set of rules. CBRC find this imperative because by 2006 all geographic and customer restrictions on foreign banks will be removed.	At present, foreign banks largely operate in the form of branches rather than subsidiaries. Again, separate rules govern the two.	Capital rules cover all banks. However, foreign bank branches are subject to a working fund requirement, which is a variant of capital rules in light of convertibility constraints for capital account transactions.

[1] See APRA's Guidelines on the Authorisation of ADIs on the website (follow link: (http://www.apra.gov.au/ADI/loader.cfm?url=/commonspot/security/getfile.cfm&PageID=1265).

Country	Domestic versus foreign banks	Foreign subsidiaries versus foreign branches	Capital requirements for domestic banks, foreign subsidiaries, and foreign branches
Hong Kong	HKMA's regulations for foreign bank subsidiaries are the same as those for domestic banks. As for foreign bank branches, the supervisory approach are broadly in line with that applied to locally-incorporated banks except that capital-based supervisory requirements such as capital-based limits on large exposures are not applied to such branches.[2] In practice, foreign banks seeking a banking license in Hong Kong can only operate as a branch. RLB presence may be in the form of a subsidiary or a branch, while DTC presence may only be in the form of a subsidiary.[3]	No difference except on capital-based supervisory requirements.	Minimum capital requirements of locally-incorporated Authorized Institutions vary according to classification (bank, RLB, DTC). However, foreign bank branches are not required to hold any capital, but they are subject to a minimum asset requirement. As such, only locally-incorporated Authorized Institutions are subject to the minimum risk-based capital adequacy ratio. Branches of foreign banks are not subject to this ratio since the primary responsibility of supervising capital adequacy of foreign bank branches rests with the home supervisor.[4]
Indonesia	Regulations for domestic and foreign banks are the same.	Regulations for foreign bank subsidiaries and foreign bank branches are the same.	Minimum capital requirements of locally-incorporated banks are the same. Foreign branches, on the other hand, should maintain their capital in the form of net inter office funds (NIOF) as much as their declared nominal. However, all banks are required to satisfy the minimum risk-based capital adequacy ratio.

[2] See Prudential Supervision in Hong Kong (Chapter 5, section (b)).

[3] Banks are the only institutions that can receive money from the general public (retail deposits), RLBs (restricted license banks) may take call, notice or time deposits from the public in amounts of HK$500,000 or above without restriction on maturity. DTCs (deposit taking companies) are restricted to taking deposits of HK$100,000 or above with an original term to maturity, or call or notice period, of at least 3 months.

[4] See HKMA's Guide to Authorization (paragraph 4.47).

Country	Domestic versus foreign banks	Foreign subsidiaries versus foreign branches	Capital requirements for domestic banks, foreign subsidiaries, and foreign branches
India	Regulations for domestic and foreign banks are generally the same, except for some minor differences. For example, priority sector lending target for foreign banks is 32% as against 40% for Indian banks. Also, export credit is taken as priority sector lending for foreign banks but not for Indian banks.	As of now, only foreign bank branches are operating in India. RBI's roadmap, however, permits foreign banks in India to convert their existing branches to wholly-owned subsidiaries from now until 2009.	Minimum capital requirements are different for locally-incorporated banks and foreign bank branches. However, all banks are required to satisfy the minimum risk-based capital adequacy ratio.
Japan	See BCBS timetable	See BCBS timetable	See BCBS timetable
Korea	Domestic and foreign banks are subject to the same regulations. However, foreign bank branches should meet a minimum requirement of operational fund(instead of capital), and they should get an approval of their annual financial statements from The FSS before they send profits to their headquarters. In addition, the FSS impose "asset pledge" to foreign bank branches. There are also specific regulations regarding the establishment and closure of foreign bank branches.	Aside from "capital" structure and establishment and closure regulations, same regulations apply to foreign subsidiaries and branches.	Minimum capital requirements are different for locally-incorporated banks and foreign bank branches. For foreign bank branches, capital is in the form of operational funds. However, all banks are required to satisfy the minimum risk-based capital adequacy ratio.
Malaysia	Regulations are broadly the same except that foreign banks are not allowed to open new branches or new ATM machines. Currently, BNM is not issuing new licenses for "conventional" banks. However, they have recently issued new licenses to foreign islamic banks. Based on BNM's Masterplan, new "conventional" banks would only likely be allowed after 2010.	All foreign banks are required to be locally-incorporated. So there are no foreign bank branches, only subsidiaries.	Minimum capital requirements are the same for all banks. All banks are also required to satisfy the minimum risk-based capital adequacy ratio.

Country	Domestic versus foreign banks	Foreign subsidiaries versus foreign branches	Capital requirements for domestic banks, foreign subsidiaries, and foreign branches
New Zealand	Same regulations apply to both domestic and foreign banks.	Same regulations apply to both foreign bank subsidiaries and foreign bank branches.	Only locally-incorporated banks are subject to minimum capital requirements. Branches of foreign banks are not subject to such minimum requirements. However, RBNZ will wish to satisfy itself that the global bank has a level of capital which exceeds NZ$15 million. As such, only locally-incorporated banks are subject to a minimum risk-based capital adequacy ratio. Foreign bank branches are not subject to the same requirements, subject to the global bank satisfying the minimum capital adequacy requirements developed by the BCBS, as administered by the home supervisor.
Philippines	Foreign banks are subject to the same regulations as domestic banks in the same category (eg universal bank, commercial bank), thus they can engage in the same type of activities.	Foreign bank subsidiaries can enter either by purchasing an existing domestic bank or by incorporating its own. However, due to the moratorium on the establishment of new banks, only the former option is left. Foreign bank subsidiaries are also subject to the same branching policies as domestic banks. Only 10 banks incorporated outside of the Philippines can put up branches in the country (currently, all 10 licenses have been issued). Each foreign-incorporated bank can put up 3 branches in any location of its choice. In addition, each bank can open 3 more additional branches in locations designated by the Monetary Board, subject to additional permanent assigned capital of P35 million for each branch.	Minimum capital requirements for locally-incorporated banks vary according to classification (eg universal bank, commercial bank). Capital for foreign bank branches refer to the permanently assigned capital[5] plus *Net Due To* head office. However, all banks are required to satisfy the minimum risk-based capital adequacy ratio.

[5] Minimum permanently assigned capital should not be less than P210 million (US$ equivalent at P26.979 = US$1).

Country	Domestic versus foreign banks	Foreign subsidiaries versus foreign branches	Capital requirements for domestic banks, foreign subsidiaries, and foreign branches
Singapore	The regulations governing local and foreign banks are generally similar, except in some aspects such as minimum capital requirements (different for domestic banks, foreign subsidiaries and foreign branches) and the capital structure of foreign bank branches.	Foreign banks are generally set up as branches in Singapore, except for merchant banks, which are generally incorporated as legal entities. Other than minimum capital requirements and capital structure, however, regulations are broadly the same for both foreign subsidiaries and foreign branches.	All locally-incorporated banks are subject to the same minimum capital requirements. Foreign bank branches are subject to a minimum head office capital funds and minimum net head office funds. All locally-incorporated banks are required to satisfy the minimum risk-based capital adequacy ratio. Foreign branches are not subject to the same requirement.
Thailand	Foreign banks have been under the same regulatory treatment as domestic commercial banks, and thus can engage in the same scope of business.	Subsidiaries of foreign banks are allowed to open 1 branch inside Bangkok and metropolitan areas, and 3 branches outside. Branches of foreign banks, on the other hand, are not allowed to open any branch.	Minimum capital requirements of domestic banks, foreign bank subsidiaries, and foreign bank branches are different[6]. In terms of risk-based capital adequacy ratio, foreign bank branches have a slightly lower capital ratio of 7.5%. Locally-incorporated banks' required capital ratio is 8.5%.
Taiwan	Same regulations apply to both domestic and foreign banks.	Only foreign bank branches are operating in Taiwan.	Only domestic banks are subject to risk-based capital adequacy requirements.

[6] Minimum capital requirement for domestic commercial banks is 5 billion baht of Tier 1 capital. For foreign bank subsidiaries, registered and paid-up capital must be maintained at the minimum of 4 billion baht. Lastly, for foreign bank branches, the minimum capital requirement is 3 billion baht. Capital for foreign bank branches refer to the assets maintained under Section 6 of the Commercial Banking Act (consisting of deposits with the BOT, Thai government securities, or debt instrument guaranteed by the Ministry of Finance etc) which have to be financed by the funds brought in from the head office, reserves and net profits.