

Financial integration in Asia

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This study shows that the level of regional integration of Asia's capital and banking markets is limited. Asian economies tend to be more linked to the global market than to one another, particularly in comparison with the EU-15 countries. The phenomenon is true for both the banking and capital markets, although figures indicate regional integration in the banking market to be higher than that in capital markets. This is probably a result of several institutional and structural features of Asia's financial system, including the underdeveloped capital markets; the lack of regional harmonisation in tax, accounting and legal standards; high capital restrictions; and greater exchange rate volatility without sufficient hedging tools.

However, in the longer term, financial integration is expected to deepen as the Asian economies improve, their financial structures mature and the regional bond market develops.

Summary

This study assesses the degree of integration in Asia's capital and banking markets. For capital markets, we look at (i) the share of Asia's total overseas portfolio investment that is invested within the region, and (ii) Asian investors' holdings in Asian assets as a share of global investors' holdings in Asian assets. For the banking market, we examine the share of external claims by Asian banks on Asia. The results show that neither the capital nor the banking markets in Asia have demonstrated a high degree of regional integration.

In our study of the destinations of Asia's overseas portfolio investment, we found that Asian investors tended to hold the majority of their portfolio assets outside Asia. In 2004, they held an average 66.3% of their portfolio assets in Europe and the US, but only 5.9% in Asia. The preference of Japanese investors for European and US assets was a major reason for the low degree of financial integration in Asia. Excluding Japan, the share invested in Asia

increased to 17.4%. The share of intra-Asian portfolio investment was also lower than the share of European investment in Europe.

At the same time, Asian borrowers were also not very reliant on funding from Asian investors. The bulk of investment in Asia came from Europe and the US, with Asia accounting for 9.9% including Japan and 17.3% excluding Japan. It is worth noting that the share of Asian investors in Asian bond issues was high, at 35.6%. While this suggests that Asian investors favour good Asian names issued in US dollars in Europe and the US, it could also reflect the small size of the Asian markets, which may have limited participation by investors.

Similar to the capital markets, integration in Asia's banking market was also low, as reflected by the lower share of intra-regional bank claims compared with the European countries. But within Asia, integration of the banking market was higher than that of the capital markets.

Several institutional and structural characteristics of the financial system have constrained financial integration in the region. We expect financial integration to deepen over time as the region's economies improve, their financial structures mature and the regional bond market develops.

Introduction

In Asia, the increasing volume of intra-regional exports indicates a high degree of trade integration.¹ By comparison, financial integration has been low. Financial integration has been difficult to measure due to the lack of indicators and a clear definition of integration.² In this study, we use two sources of evidence to gauge the degree of integration in Asia's capital and banking markets. First, the IMF Co-ordinated Portfolio Investment Survey (CPIS) records details of cross-border holdings of portfolio assets (equities and bonds) by Asian investors. Secondly, the BIS banking statistics provide information on interbank lending within the region. In general, the higher the share of intra-regional cross-border holdings of portfolio assets and bank claims, the higher the degree of financial integration in the region.

Asian capital markets

The degree of integration in Asia's capital markets is assessed from two perspectives:

(a) *Asia's overseas investment* – cross-border portfolio investment by eight East Asian economies (EA-8)³ in the Asian region (defined as the EA-10 economies⁴) is expressed as a ratio of EA-8's total overseas portfolio investment⁵; and

(b) *Investment in Asia* – cross-border portfolio investment in the Asian region (EA-10) by Asian investors (EA-8) is expressed as a ratio of total portfolio investment in the EA-10 economies by global investors.

We then compare the ratios with those of the 15 economies in the European Union (EU-15)⁶, because Europe, with more homogeneous economic structures and synchronised business cycles, possesses a higher degree of economic and monetary integration. The CPIS provides useful information about the portfolio asset holdings of economies participating in the survey. Following similar concepts and definitions, the coverage of the CPIS data corresponds to the coverage of portfolio assets in the international investment position of an economy. (Details of CPIS are at Annex 1).

Asia's overseas investment

Chart 1 presents the geographical distribution of cross-border portfolio investment of the EA-8 and EU-15 economies in 2004. Table 1 shows the same data from 2001 to 2004. As the figures show, the EA-8 economies held the majority of their portfolio assets outside Asia. In 2004, they held an average 35.8% of their portfolio assets in Europe and 30.5% in the US, but only 5.9% in Asia (17.4% excluding Japan). This suggests that Asia is more integrated with the global market than with regional capital markets. By comparison, investors in the EU-15 economies held 64.1% of their portfolio assets within Europe, much higher than the corresponding intra-Asian portfolio investment.

¹ In 2004, an estimated 49.3% of Asia's exports were within the region, up from 31.9% in 1980.

² In a broad sense, financial integration is the process through which an economy's financial markets become closely integrated with those in other economies. Cross-market correlation can be a measure of integration in regional equity markets.

³ The EA-8 economies are Hong Kong, Japan, Korea, Indonesia, Malaysia, the Philippines, Singapore and Thailand.

⁴ The EA-10 economies are the EA-8 economies plus China and Taiwan.

⁵ Owing to the limitation of CPIS, we have data on portfolio investment in the EA-10 economies, but we only have data on overseas investment by the EA-8 economies.

⁶ The EU-15 economies are Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden, and the UK.

CHART 1

Geographic distribution of cross-border portfolio investment of EA-8 and EU-15 economies (2004)

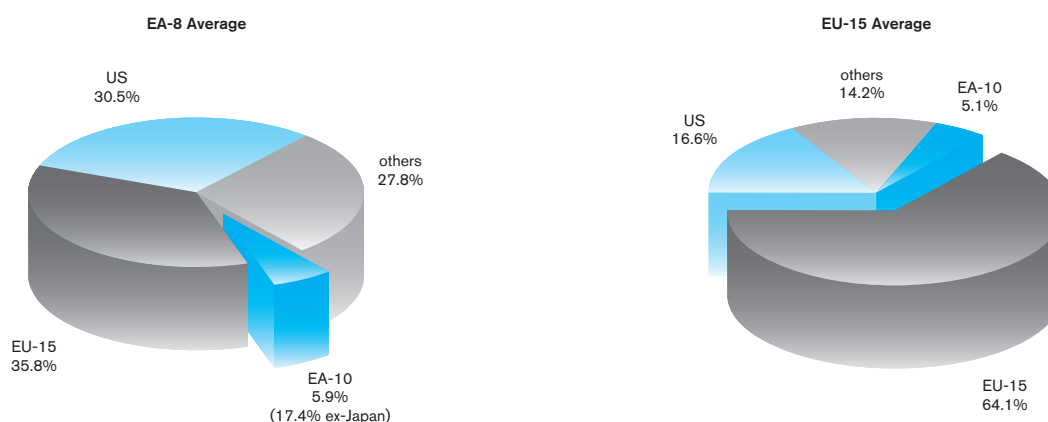


TABLE 1

Geographic distribution of cross-border portfolio investment of EA-8 economies

(% of total)

	EA-10				EU-15				US			
	2001	2002	2003	2004	2001	2002	2003	2004	2001	2002	2003	2004
Japan	1.7	1.4	1.3	1.4	38.6	37.9	37.3	37.5	38.0	35.8	36.0	34.6
Hong Kong	15.7	14.4	17.2	16.7	25.0	30.1	29.2	29.6	19.1	15.2	13.9	14.9
Korea	21.4	13.8	8.0	7.3	14.7	15.3	26.4	32.5	46.8	49.6	45.9	44.9
Singapore	31.0	22.9	26.1	31.2	32.0	40.2	36.6	32.5	17.1	17.4	17.6	17.6
Indonesia	21.3	10.6	11.2	7.2	30.0	34.2	16.0	29.4	34.7	29.9	24.9	15.1
Malaysia	35.0	31.2	42.3	25.6	24.0	11.4	23.6	40.9	9.1	15.7	21.5	14.7
Philippines	5.8	7.0	7.4	4.4	3.5	8.6	18.9	17.4	86.4	81.3	68.9	64.1
Thailand	30.7	3.9	6.7	23.1	25.0	8.6	22.1	22.9	35.4	76.6	58.5	27.7
EA-8 average	5.5	4.8	5.5	5.9	36.2	36.8	35.8	35.8	34.3	31.9	31.6	30.5
EA-8 ex Japan	14.8	13.7	16.3	17.4	26.9	32.5	31.0	30.4	19.6	17.7	16.8	17.4
<i>Memorandum item</i>												
EU-15 average	5.3	3.9	4.6	5.1	60.0	62.5	63.7	64.1	20.3	18.4	17.5	16.6

Source: IMF

Three factors may help explain the lower degree of regional integration in capital markets. First, the financial system in Asia has been largely bank-oriented, as Asian equity and bond markets are generally less developed, making fund raising through Asian capital markets more costly than borrowing from banks. Secondly, there are fewer quality portfolio assets available in Asia for investors. Inadequate financial structures and legal protection, low auditing and accounting standards and weak corporate governance may have hampered the

development of the regional capital markets. Thirdly, brokerage services for investing in overseas bonds and equities have mostly been provided by Western – American and European – investment banks. Therefore, Asian investors may have better information on the financial markets of developed economies than those of Asia. If so, Asian economies would be less inclined to intensify their financial links with one another, than would be the case for the European countries.

In terms of country composition, Japanese investment in Asia has been exceptionally low, under 2% between 2001 and 2004, partly due to the preference of Japanese investors for domestic assets. Among the non-Japan Asian economies, developed markets such as Hong Kong and Singapore have been major investors in Asia. In 2004, investors in Hong Kong had 16.7% of their portfolio in Asian assets, while Singapore's holdings of Asian assets increased from 22.9% in 2002 to 31.2% in 2004, at the expense of holdings in the EU-15 economies. Malaysia and Thailand also held large shares of Asian assets (25.6% and 23.1% respectively), but the value of investments was small (data on asset size are at Annex 2).⁷ By contrast, Indonesia, Korea and the Philippines held smaller shares of financial assets in Asia.

In addition, Indonesia, Korea and Malaysia have shifted their investment from Asia to Europe. A possible explanation is that several Asian economies adopted a floating exchange rate regime after the Asian financial crisis, leading to higher volatilities in their exchange rates against each other. This, along with the absence of sophisticated hedging tools, contributes to a lower share of intra-regional portfolio investment, and a lower degree of financial integration in the Asian markets. (Evidence shows that financial integration in Europe has risen significantly following the introduction of the euro.⁸) In Indonesia, the CPIS data indicate a continued shift in investment to offshore financial centres, leading to a steady decline in investment in Asia and the US.

The data also reflect a slight decline⁹ in investment in US portfolio assets by Asian and European investors in 2004: Asia from 31.6% in 2003 to 30.5% in 2004, and Europe, from 17.5% to 16.6%. (An exception is Hong Kong, where holdings of US assets increased from 13.9% in 2003 to 14.9% in 2004.¹⁰) The decline may be partly explained by the diversification of investment out of US dollar assets by investors in anticipation of a weaker US dollar in 2004. Together with the adoption of a floating exchange rate regime, many Asian countries may have shifted some of their investment from the US to Europe. (That said, the need to moderate excessive exchange rate volatility against the US dollar suggests that Asian governments will still keep their foreign reserves in US treasuries and other dollar-denominated financial assets.)

With regard to asset composition, Charts 2 and 3 present the geographic distribution of equity and bond investment of the EA-8 and EU-15 economies in 2004. EA-8 investors had 12.9% of their investment in equities (20.9% excluding Japan) of the EA-10 economies, higher than the portfolio average (details at Annex 3). Hong Kong, Malaysia, Singapore and Thailand held the largest shares of Asian equities. Malaysia and Thailand were again small investors in value terms.

⁷ In 2004, Hong Kong investors held US\$66.8 billion worth of portfolio assets in Asia, while Singapore residents held US\$56.2 billion. The asset sizes of Malaysia and Thailand were smaller, at US\$830 million and US\$379 million, respectively.

⁸ Danthine JP, F Giavazzi, and EL von-Thadden, "European Financial Markets after EMU: a First Assessment", Centre for Economic Policy Research, Discussion Paper 2413, 2000. See also Fratzscher M, "Financial Market Integration in Europe: On the Effects of EMU on Stock Markets", European Central Bank, Working Paper 48, 2001.

⁹ While the share of investment has declined, the value of investment has actually increased. See Annex 2 for details.

¹⁰ Increased investment in the US from Hong Kong has produced a large offsetting effect to the decrease from other Asian economies. This is due to a higher weight assigned to Hong Kong when calculating the weighted average because of the significant value of investment from Hong Kong. This offsetting effect is more pronounced when Japan is excluded, which results in a rise in the share of portfolio investment in the US despite all Asian economies under study, except Hong Kong, recorded a drop (or stayed the same).

CHART 2

Geographic distribution of cross-border equity investment of EA-8 and EU-15 economies (2004)

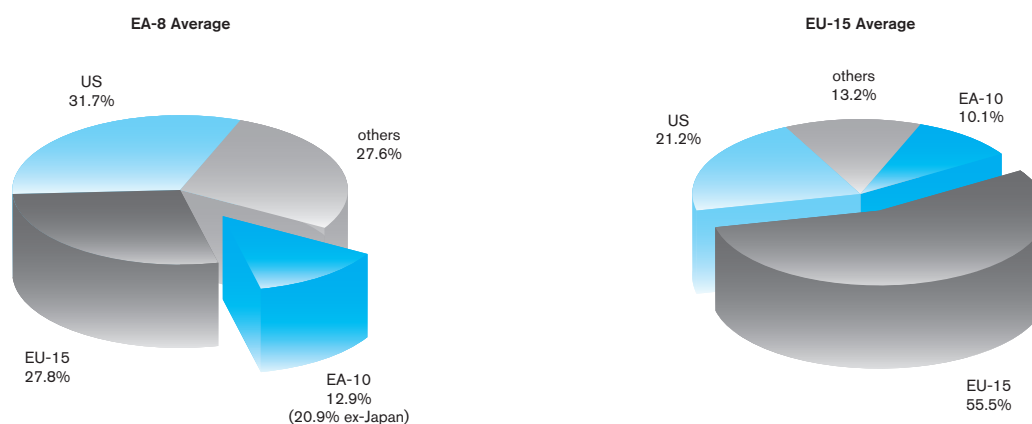
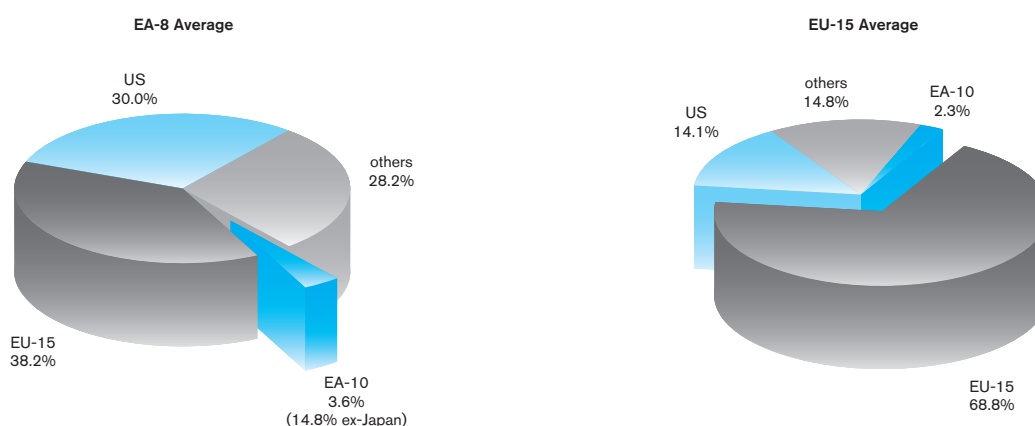


CHART 3

Geographic distribution of cross-border bond investment of EA-8 and EU-15 economies (2004)



Compared with equity investment, the EA-8 economies held a smaller share of Asian debt securities in their bond portfolios – 3.6% on average in 2004 – ranging from 0.7% in Japan to 23.9% in Singapore. The lower share can be explained by the less developed debt markets in Asia. The bond markets are smaller and less liquid compared with those in Europe and the US. Consistent with the pattern of overall portfolio asset holdings in 2004, the shares of intra-Asian investment in equities and bonds were lower than that in Europe – 55.5% for equities and 68.8% for bonds.

Portfolio asset investment in Asia

The following analysis assesses the extent of integration in the Asian capital markets by looking at the source of portfolio investment in the EA-10 economies. Chart 4 presents the geographic breakdown of investors holding portfolio assets in the EA-10 and EU-15 economies in 2004. Table 2 shows the same data from 2001 to 2004 (investment values are at Annex 4). In 2004, most of the investment in the EA-10 economies came from Europe (38.7%) and the US (37.4%), with Asia taking a backseat (9.9% including Japan and 17.3% excluding Japan). This suggests Asian borrowers are not that reliant on funding by Asian investors. By contrast, European investors held 62.9% of the portfolio assets of the EU-15 economies.

CHART 4

Geographic distribution of investors holding portfolio assets in EA-10 and EU-15 economies (2004)

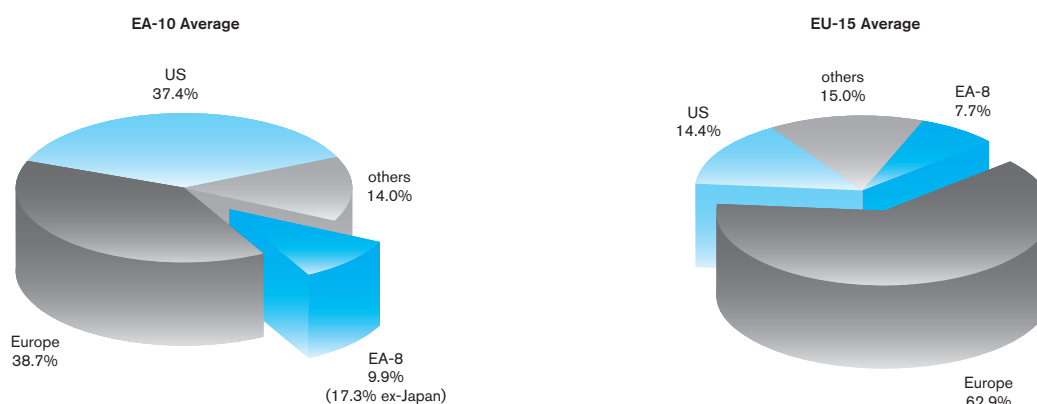


TABLE 2

Geographic distribution of investors holding portfolio assets in EA-10 economies

(% of total)

	EA-8				EU-15				US			
	2001	2002	2003	2004	2001	2002	2003	2004	2001	2002	2003	2004
China	57.8	49.0	45.8	52.8	22.2	22.3	24.2	24.1	14.8	21.7	25.4	19.0
Japan	3.7	2.5	2.2	2.0	37.1	36.3	37.4	40.9	36.5	38.2	39.9	39.0
Hong Kong	12.0	13.3	12.9	14.8	45.6	37.1	38.0	44.6	33.1	34.1	34.5	29.8
Korea	18.5	19.6	17.3	14.7	29.7	30.8	33.9	33.8	44.9	43.8	42.7	44.6
Singapore	11.1	16.8	16.7	16.5	34.3	27.6	29.0	32.6	45.0	46.8	45.1	42.6
Taiwan	9.6	23.7	9.4	8.7	34.8	28.9	39.7	40.8	48.3	38.5	45.6	46.0
Indonesia	21.1	27.8	15.9	15.0	28.6	9.1	24.4	25.5	33.2	31.4	27.3	28.5
Malaysia	54.5	53.6	45.8	48.0	21.7	14.8	27.5	29.6	18.9	28.0	22.6	19.4
Philippines	32.9	30.4	20.4	19.3	19.7	16.6	40.0	39.6	31.6	40.9	30.1	33.2
Thailand	39.7	36.1	30.6	27.1	32.1	32.1	35.2	40.3	22.5	25.5	27.1	27.4
EA-10 average	10.2	10.5	9.9	9.9	36.0	33.5	35.7	38.7	36.7	37.9	38.5	37.4
EA-10 ex Japan	14.2	17.5	16.7	17.3	34.2	28.7	33.4	35.4	36.9	37.5	36.4	35.0
<i>Memorandum item</i>												
EU-15 average	9.3	9.0	8.0	7.7	57.1	60.2	61.4	62.9	19.1	15.6	15.4	14.4

Source: IMF

Charts 5 and 6 present the geographic distribution of investors holding equities and bonds in the EA-10 and EU-15 economies in 2004. Asia's share of total investment in Japanese bonds is small and has declined, from 7.7% in 2001 to 3.3% in 2004 (Annex 5). Another observation is that 35.6% of the total investment in bonds issued by the EA-10 economies, excluding Japan, came from non-Japan

Asia in 2004 (16.8% including Japan). The largest recipients of bond investment from the EA-10, excluding Japan, were China, Korea, Malaysia and Thailand. This suggests Asian investors probably prefer good Asian names issued in US dollars, and in the liquid markets of Europe and the US. It may also mean that the small scale of the market has limited participation of investors in Asian bonds.¹¹

¹¹ For example, in 2004, the size of the Asian bond market was US\$433.1 billion, equivalent to 38.6% the size of the equity market, which amounted to US\$1,121.2 billion.

CHART 5

Geographic distribution of investors holding equities in EA-10 and EU-15 economies (2004)

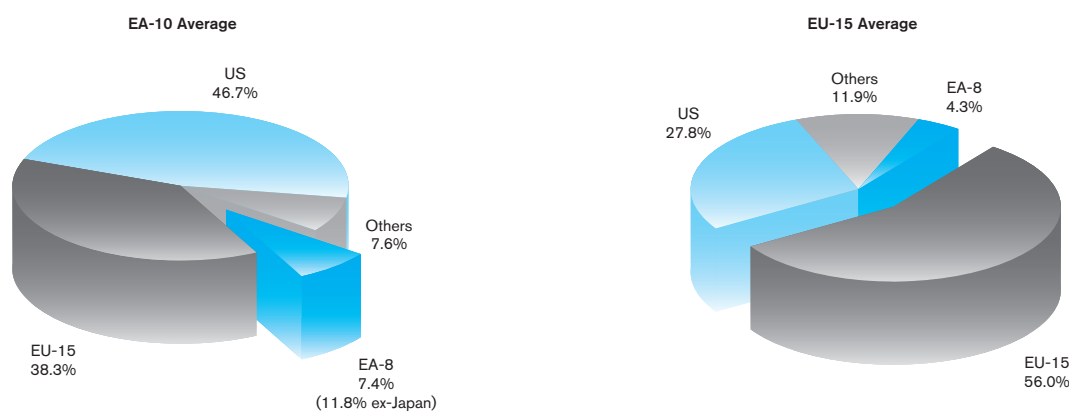
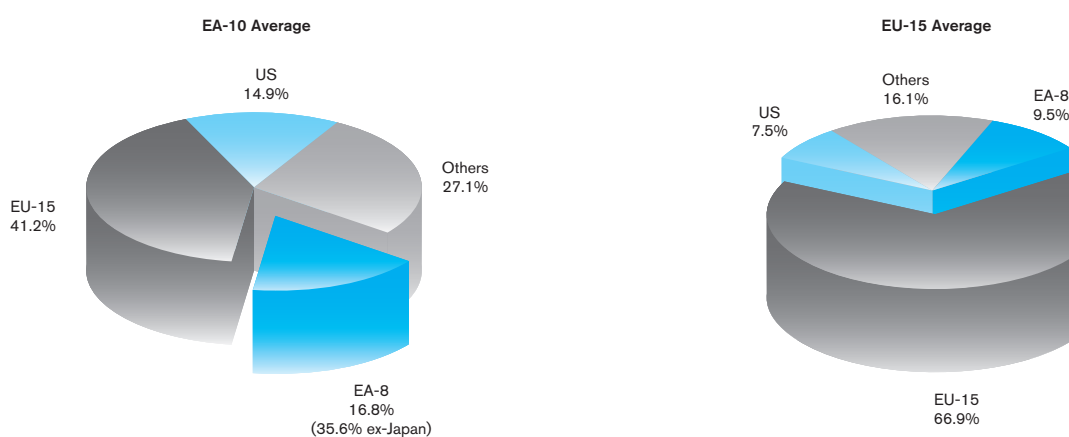


CHART 6

Geographic distribution of investors holding bonds in EA-10 and EU-15 economies (2004)



A further observation is that the amount of outward investment from Asia is much greater than funds received by Asia from the region. In 2004, total outward investment by the EA-10 economies was estimated to be US\$3,482 billion, of which only about US\$205 billion (5.9%) was invested back in Asia¹². A large portion of Asian savings went elsewhere because of the small size of the Asian capital markets.

The Asian banking market

To assess the degree of integration of the Asian banking market, we compare the share of external claims by Asian banks on Asia and by EU-15 banks on Europe¹³, using consolidated foreign bank claims of BIS reporting banks by nationality of lenders and borrowers¹⁴. However, the BIS information is limited because only three economies (Hong Kong, Japan

¹² Outward investment by the EA-10 economies was estimated by adding the foreign reserves of China and Taiwan to outward investment of the EA-8 economies from the CPIS. The investment of EA-10 in Asia was an estimate, based on a mixture of guesswork and calculation, by adding the investment of EA-8 in Asia and the portion of foreign reserves of China and Taiwan that are non-US dollar and non-European currencies (around 6% based on developing countries' Currency Composition of Official Foreign Exchange Reserves of the IMF).

¹³ Japan, Hong Kong, Singapore and the Asian Pacific economies are included as the country of destination for bank claims. Europe includes the EU-15 economies plus Andorra, Iceland,

Liechtenstein, Norway, Switzerland and other European economies.

¹⁴ BIS banking data are also available on a locational and consolidated basis. However, as the locational banking statistics do not show the geographical breakdown of bank claims, the consolidated data are used. The problem with using banking statistics by nationality of the reporting banks is that claims by the branches of non-Asian banks on Asia will not be counted as external claims by Asian banks on Asia. An Asian bank located outside Asia with claims on Asia will nevertheless be included.

and Taiwan) report data on consolidated foreign bank claims (we have separately obtained compatible banking statistics for Korea from Korea's financial regulator). As some important regional economies are being left out, reported bank claims will be smaller than the actual amount insofar as banks in these economies hold claims against one another.

Chart 7 shows the geographic distribution of external bank claims in Asia and Europe in 2005, and Table 3, from 2001 to 2005 (values of bank claims are at Annex 6). The proportion of cross-border intra-regional bank claims of the three reporting Asian economies (17.5% in 2005), was lower than the

corresponding intra-regional bank claims of the EU-15 economies (54.4%). In addition, intra-regional bank claims for Hong Kong, Japan and Korea were larger than the corresponding figures for equity and debt securities holdings for these economies¹⁵. This indicates that the degree of integration of the bank loan market is higher than that of the capital markets in Asia¹⁶. On the geographic distribution of external bank claims, banks of the three reporting Asian economies held the majority of their claims outside Asia (32.3% in Europe and 31.7% in the US). As with the capital markets, Asia is more integrated with the global market than to the regional banking market.

CHART 7

Geographic distribution of cross-border bank claims (2005)

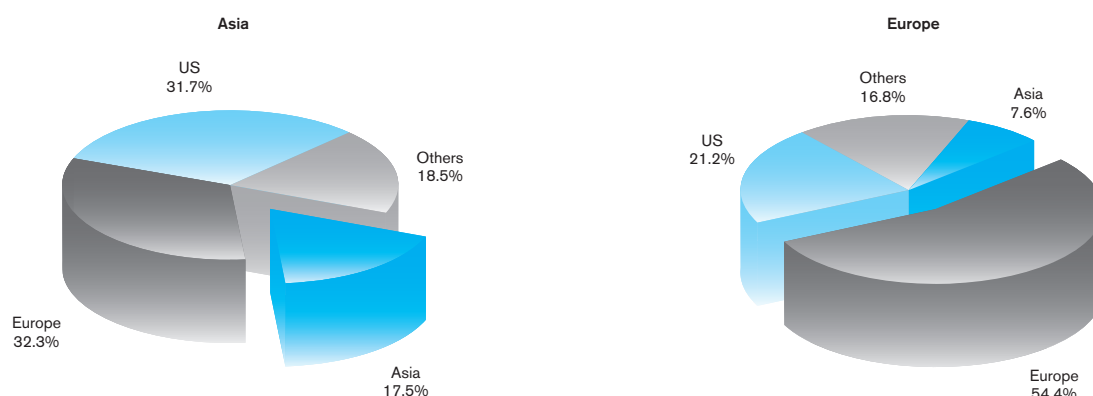


TABLE 3

Cross-border bank claims

(% of total)

	Asia					Europe					US				
	2001	2002	2003	2004	2005	2001	2002	2003	2004	2005	2001	2002	2003	2004	2005
Japan	10.2	8.2	7.5	7.5	7.5	30.5	33.8	35.6	33.2	32.1	43.6	42.3	39.5	39.2	38.6
Hong Kong	51.8	49.4	47.9	49.7	47.9	31.0	33.5	34.0	33.3	34.7	7.6	8.1	9.2	8.2	9.0
Korea	–	–	35.7	35.9	–	–	–	21.2	22.0	–	–	–	21.2	22.6	–
Taiwan	32.7	29.9	27.5	24.7	24.9	19.2	19.5	22.9	23.7	26.3	35.4	38.1	37.1	36.4	34.5
Asia average	21.3	19.1	18.9	18.9	17.5	30.2	32.9	34.0	32.2	32.3	34.4	33.6	31.5	31.2	31.7
EU-15 average	9.9	8.5	8.7	7.9	7.6	51.8	53.7	54.9	58.0	54.4	19.8	21.4	20.3	18.7	21.2

Sources: BIS, HKMA estimates

¹⁵ In 2004, intra-regional bank claims for Hong Kong were 49.7%, Japan 7.5% and Korea 35.9%. In the same year, intra-regional equity holdings were 18.2% for Hong Kong, 4.8% for Japan, and 8.1% for Korea. Intra-regional bond holdings were 15.1%, 0.7% and 7.0% for Hong Kong, Japan, and Korea, respectively.

¹⁶ Another way to gauge the extent of integration in Asia's capital market vis-à-vis its banking market is to look at the gap in integration in the banking market and capital markets between Asia and Europe. In 2004, the gap in integration in the banking markets between Asia and the EU-15 economies (18.9% versus 58.0%) was smaller than that in the capital markets (5.9% versus 64.1%). In a broad sense, the bank loan market in Asia is more integrated than the capital market.

Lending to Asia declined following the Asian financial crisis and the bursting of the tech bubble, as banks reduced their willingness to lend, while the demand for loans became weaker. At the same time, the shift to a current account surplus in Asia, corporate de-leveraging, and the rise in equity investment inflows reduced the need for external bank financing. However, a modest pick up in external claims by Asian banks on the region was evident in recent years, reflecting stronger growth in the regional economies. This trend is expected to continue, particularly as the recovery in the Japanese economy has become firmly established.

Concluding remarks

While there are broad views among policy makers that further financial integration in the region is desirable, there are few indications of the current extent of such integration. However, based on IMF and BIS banking data, we find some evidence of financial integration in the region, although Asian economies tend to be more linked to the global market than integrated with one another, particularly when compared with the EU-15 countries. While this situation is true for both the banking and capital markets, the BIS data indicate that regional integration in the banking market is higher than that in capital markets. We have looked for plausible reasons and consider that several institutional and structural features of Asia's financial system may have constrained financial integration in the region. These include the underdeveloped capital markets; the lack of regional harmonisation in tax, accounting and legal standards; high capital restrictions, and greater exchange rate volatility without sufficient hedging tools.

Looking ahead, we expect financial integration to deepen as the regional economic environment continues to improve. Most Asian economies are also easing capital controls, which will remove an impediment to further regional financial integration¹⁷. Improvements in legal structures, auditing and accounting standards, and corporate governance, will also encourage greater investment within the region. Finally, we note that the underdeveloped bond market has been a factor explaining why financial integration in Asia has been low. We also note that progress in European integration has much to do with explicit government initiatives that complement private sector developments. In this regard, Asian governments have been striving to develop the regional bond market in recent years¹⁸. This will help promote intra-regional investment in debt securities and deepen financial integration in the region.

¹⁷ Chelly-Steeley found that the abolition of exchange controls helped equity markets to become more closely integrated in Europe. See Chelly-Steeley P.L. and J.M. Steeley, 1999, "Changes in the Co-movement of European Equity Markets", *Economic Inquiry* 37 (3), page 473-488.

¹⁸ These included the EMEAP Asian Bond Fund Initiative, the ASEAN+3 Asian Bond Market Initiative, and the APEC Initiative on the Development of Securitisation and Credit Guarantee Markets.

HONG KONG'S PORTFOLIO INVESTMENT

Hong Kong is a major portfolio investor in Asia, with US\$66.8 billion invested in the region in 2004 – more than double the US\$32.4 billion in 2001. Of this investment US\$36.4 billion went into equities and US\$30.4 billion into bonds.

Investment in Hong Kong by Asian investors has also had a remarkable rise, up 60.3% from US\$11.6 billion in 2001 to US\$18.6 billion in 2004. The increase reflects the growing importance of Hong Kong as a financial centre in the region.

In terms of country composition, Mainland China has become Hong Kong's major portfolio investment destination, while Japan's share has decreased. As Chart B1 indicates, Hong Kong has increased its portfolio investment holdings in the Mainland, from US\$8.4 billion (25.9% of total Asian portfolio holdings) in 2001 to US\$28.1 billion (42.1%) in 2004. The rise came largely from equity holdings, reflecting the purchase of H shares by Hong Kong residents (Hong Kong residents' purchase of shares issued by locally-listed foreign companies is recorded as portfolio investment abroad in the balance of payments statistics). By contrast, while Hong Kong's portfolio investment holdings in Japan have increased, from US\$9.2 billion in 2001 to US\$10 billion in 2004, its share in Hong Kong's total Asia portfolio holdings declined from 28.6% in 2001 to 14.9% in 2004.

On the other hand, investment in Hong Kong by Asian investors has risen significantly, and dominated mainly by Japan and Singapore (Table B1). In 2004, Japan accounted for 52.0% of Asia's total portfolio investment in Hong Kong. Its investment in Hong Kong rose by 57.8%, from US\$6.12 billion in 2001 to US\$9.7 billion in 2004. The increase came mainly from equity investment, which rose from US\$4.8 billion to US\$9.1 billion. Singapore contributed another 44.8% of Asia's total portfolio investment in Hong Kong. Its investment in 2004, at US\$8.3 billion, was 75.2% higher than the US\$4.7 billion in 2001. The increase was largely due to the rise in equity investment, from US\$3.1 billion to US\$5.7 billion, while bond investment also grew from US\$1.6 billion to US\$2.6 billion. The increase in equity investment in Hong Kong by Asian investors could be due to the increased listing of H-shares in Hong Kong, and their interest in these shares. This suggests that cross-border listings have helped promote financial integration in the region.

TABLE B1

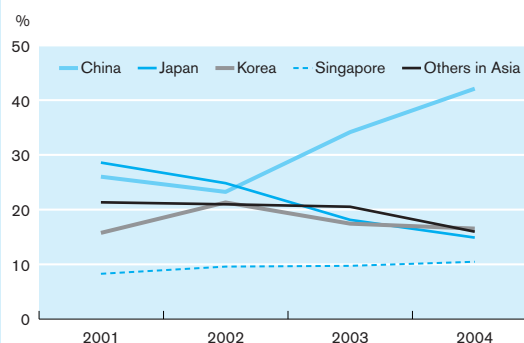
Portfolio investments in Hong Kong by major Asian investors (2004)

Origin	% of total
Japan	7.7
Singapore	6.7
Korea	0.2
Others	0.2
Total Asia	14.8
<i>Memorandum items:</i>	
- EU-15	44.6
- US	29.8

Source: IMF

CHART B1

Hong Kong's portfolio asset holdings in Asia



Source: IMF

ANNEX 1

IMF Co-ordinated Portfolio Investment Survey (CPIS)

CPIS collects information on the stock of cross-border holdings of equities and debt securities valued at market prices prevailing at the time of the Survey, and broken down by the economy of residence of the issuer. CPIS gathers data on holdings of securities at the end of December of the reference year. The results¹⁹ presented in geographic breakdown tables are in matrix form for individual economies' data of residents' holdings of securities issued by non residents (reported data) and the derived data for non residents' holdings of securities issued by residents (derived data). The geographic breakdown of the reported data is limited to the CPIS participating economies, while the geographic breakdown of the derived data covers all economies that issue securities held by CPIS participating economies.

The IMF conducted the first CPIS in 1997, and annually since 2001. CPIS (1997) involved only 29 source economies, while CPIS (2001) was expanded to involve 67 source economies including offshore and financial centres. In each case, the bilateral positions of the source economies in 223 destination economies are reported. CPIS data do not capture direct investment among participating economies. Following the same concepts and definitions, CPIS data coverage for an individual economy corresponds to the coverage of portfolio investment assets in the international investment position statement of the respective economy.

Background

The purpose of CPIS is to improve data on holdings of portfolio investment assets in the form of equity and debt securities. The key objectives are:

- To collect comprehensive information, with geographical detail on the country of residence of the issuer, on the stock of cross-border equities and debt instruments for use in the compilation, or improvement, of international investment position statistics on portfolio investment capital; and
- For data exchange. When CPIS results become available, the data may be exchanged among the participating economies and with "outside" countries. Through the exchange of data (subject to confidentiality constraints), participating countries should be able to improve their statistics of non resident holdings of their portfolio investment liabilities as well as associated financial flows and investment income data. (Information on the geographic distribution of non resident creditors also becomes known.)

CPIS is undertaken in response to the recommendations contained in the *Report on the Measurement of International Capital Flows*, published by the IMF in 1992. The report highlighted the increasing importance of portfolio

¹⁹ The results of CPIS are presented in four types of tables: (i) tables showing data for individual economies (which exclude securities held as reserve assets); (ii) tables showing data for securities held as reserve assets and data

for international organisations; (iii) tables showing a geographic breakdown of data in matrix form for individual economies; and (iv) tables showing the global results of CPIS.

investment across international borders, reflecting the liberalisation of financial markets, financial innovation, and the changing behavior of investors. However, measurement difficulties have occurred as a result of increased liberalisation of international flows. These difficulties have been reflected in the imbalances at the worldwide level between recorded financial assets and liabilities, with higher flows usually being recorded for liabilities than for assets.

The IMF Committee on Balance of Payments Statistics decided in 1993 to promote the idea of an internationally co-ordinated benchmark survey of long-term portfolio investment holdings to facilitate cross-country comparisons, permit data exchanges, and encourage standardisation and best practice. By undertaking a benchmark survey of holdings, many countries would be able to obtain a reasonable estimate of the outstanding balances, at market price, of the level of portfolio investment held by their residents, rather than merely summing the balance of payments flows. In this manner, a more accurate estimate might be obtained that would reduce to some extent the imbalance at the global level. Developing such data was also seen as a basis for future data exchange and possible substitution of asset for liability data, particularly on a bilateral basis.

ANNEX 2

Geographic distribution of portfolio holdings of the EA-8 economies (by value)

(US\$ bn)

	EA-10				EU-15				US			
	2001	2002	2003	2004	2001	2002	2003	2004	2001	2002	2003	2004
Japan	21.5	20.0	22.5	28.7	497.8	529.0	641.5	753.7	490.2	499.0	620.2	694.4
Hong Kong	32.4	35.2	57.6	66.8	51.5	73.5	97.8	118.7	39.3	37.0	46.7	59.6
Korea	1.7	1.6	1.4	2.1	1.2	1.8	4.6	9.2	3.8	5.7	8.0	12.7
Singapore	32.6	27.6	39.0	56.2	33.7	48.4	54.7	58.6	18.0	20.9	26.4	31.8
Indonesia	0.2	0.1	0.2	0.1	0.2	0.3	0.3	0.3	0.2	0.3	0.5	0.2
Malaysia	0.8	0.8	0.8	0.8	0.5	0.3	0.4	1.3	0.2	0.3	0.4	0.5
Philippines	0.1	0.2	0.3	0.2	0.1	0.2	0.7	1.2	1.8	2.3	2.5	2.9
Thailand	0.3	0.1	0.2	0.4	0.2	0.1	0.6	0.4	0.3	1.3	1.7	0.5
EA-8	89.5	85.6	121.9	155.3	585.2	653.7	800.6	943.3	553.8	566.9	706.2	802.5
EA-8 ex Japan	48.0	52.7	83.6	108.0	87.4	124.7	158.5	188.6	63.6	67.9	86.0	108.2
<i>Memorandum item:</i>												
EU-15	316.8	272.1	440.6	608.7	3602.2	4374.8	6132.5	7709.0	1219.3	1291.7	1679.1	1991.4

ANNEX 3

Geographic distribution of equity holdings of the EA-8 economies (by value)

(US\$ bn)

	EA-10				EU-15				US			
	2001	2002	2003	2004	2001	2002	2003	2004	2001	2002	2003	2004
Japan	8.2	6.8	11.2	17.4	69.9	62.0	80.0	109.5	123.5	108.5	142.8	176.2
Hong Kong	12.9	13.3	28.8	36.4	28.8	28.0	39.7	56.5	11.5	5.0	8.0	12.7
Korea	0.4	0.4	0.3	0.7	0.2	0.1	1.7	4.8	0.5	0.7	1.0	2.4
Singapore	15.3	15.4	19.6	26.8	5.3	5.8	6.4	7.7	6.0	6.2	8.2	10.5
Indonesia	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Malaysia	0.7	0.6	0.7	0.7	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1
Philippines	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1
Thailand	0.0	0.0	0.1	0.3	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0
EA-8	37.5	36.4	60.7	82.4	104.3	96.0	128.0	178.7	141.6	120.7	160.2	202.1
EA-8 ex Japan	25.5	25.4	42.9	55.9	34.3	34.0	48.0	69.2	18.1	12.2	17.4	25.9
<i>Memorandum item:</i>												
EU-15	209.5	192.8	318.8	429.4	1383.5	1291.6	1817.6	2347.7	590.4	531.7	763.1	895.8

Geographic distribution of bond holdings of the EA-8 economies (by value)

(US\$ bn)

	EA-10				EU-15				US			
	2001	2002	2003	2004	2001	2002	2003	2004	2001	2002	2003	2004
Japan	13.3	13.2	11.3	11.2	427.9	467.0	561.5	644.3	366.7	390.5	477.4	518.2
Hong Kong	19.4	21.9	28.8	30.4	22.7	45.5	58.2	62.2	27.8	32.0	38.7	46.9
Korea	1.3	1.2	1.1	1.3	1.0	1.6	2.8	4.4	3.3	5.0	7.0	10.3
Singapore	17.3	12.2	19.4	29.3	28.4	42.7	48.3	50.9	12.0	14.7	18.2	21.3
Indonesia	0.1	0.1	0.2	0.1	0.2	0.3	0.3	0.4	0.2	0.3	0.4	0.2
Malaysia	0.1	0.1	0.1	0.1	0.5	0.2	0.4	1.3	0.1	0.0	0.3	0.4
Philippines	0.1	0.1	0.1	0.2	0.1	0.0	0.1	0.1	1.8	2.2	2.4	2.8
Thailand	0.2	0.0	0.1	0.1	0.2	0.1	0.5	0.2	0.3	1.3	1.6	0.4
EA-8	52.0	49.0	61.0	72.8	480.9	557.4	672.0	763.8	412.2	446.0	546.0	600.5
EA-8 ex Japan	22.5	27.2	40.4	52.1	53.1	90.4	110.5	119.5	45.5	55.5	68.6	82.3
<i>Memorandum item:</i>												
EU-15	107.3	87.0	114.8	178.3	2218.7	3095.0	4300.1	5361.2	628.9	760.0	916.0	1095.6

Geographic distribution of equity holdings of the EA-8 economies (by share of total equity holdings)

(% of total)

	EA-10				EU-15				US			
	2001	2002	2003	2004	2001	2002	2003	2004	2001	2002	2003	2004
Japan	3.6	3.2	4.1	4.8	30.8	29.4	29.2	30.0	54.3	51.5	52.0	48.3
Hong Kong	13.7	13.9	18.8	18.2	30.5	29.3	26.0	28.3	12.1	5.3	5.2	6.4
Korea	29.1	21.2	8.4	8.1	12.5	7.4	51.1	53.5	35.0	38.8	28.1	26.8
Singapore	48.7	46.5	45.5	47.0	16.8	17.4	14.8	13.4	19.3	18.8	19.0	18.4
Indonesia	95.2	13.2	23.9	2.3	3.8	58.7	55.1	44.4	0.0	0.0	6.1	1.7
Malaysia	49.3	35.5	77.4	68.0	4.1	5.3	5.2	7.8	5.1	7.7	10.9	9.0
Philippines	3.2	0.9	0.9	1.8	12.7	0.0	0.1	0.1	82.9	84.2	86.3	77.1
Thailand	43.9	41.0	31.4	45.1	9.8	18.1	21.1	18.6	17.1	3.6	9.6	4.0
EA-8 average	10.5	10.6	12.8	12.9	29.3	28.0	26.6	27.8	39.7	35.1	33.7	31.7
EA-8 ex Japan	19.8	19.1	21.4	20.9	26.8	25.7	23.9	25.5	14.0	9.0	8.6	9.4
<i>Memorandum item:</i>												
EU-15 average	8.6	8.3	9.6	10.1	56.5	55.6	54.6	55.5	24.1	22.9	22.9	21.2

Geographic distribution of bond holdings of the EA-8 economies (by share of total bond holdings)

(% of total)

	EA-10				EU-15				US			
	2001	2002	2003	2004	2001	2002	2003	2004	2001	2002	2003	2004
Japan	1.3	1.1	0.8	0.7	40.3	39.4	38.8	39.2	34.5	33.0	33.0	31.5
Hong Kong	17.5	14.8	15.8	15.1	20.4	30.7	31.9	30.9	25.0	21.6	21.2	23.3
Korea	19.9	12.4	7.9	7.0	15.1	16.8	20.4	22.7	49.1	51.6	50.3	53.3
Singapore	23.4	14.0	18.2	23.9	38.5	48.8	45.4	41.4	16.2	16.8	17.1	17.3
Indonesia	19.6	10.3	11.1	9.7	30.6	31.8	15.6	28.8	35.5	32.9	25.0	15.7
Malaysia	15.0	29.9	12.4	6.0	51.9	36.7	39.1	56.3	14.8	5.2	30.6	17.4
Philippines	6.0	2.8	2.6	3.8	3.0	1.2	2.0	1.2	86.6	81.2	68.1	63.6
Thailand	29.2	2.0	2.3	6.1	26.6	8.1	22.2	26.2	37.4	80.4	67.4	45.9
EA-8 average	4.3	3.4	3.5	3.6	38.2	38.8	38.1	38.2	32.6	30.9	30.9	30.0
EA-8 ex Japan	11.5	10.8	13.0	14.8	27.1	36.0	35.5	33.7	23.0	22.0	22.0	23.1
<i>Memorandum item:</i>												
EU-15 average	3.0	1.9	1.8	2.3	62.4	66.1	68.3	68.8	17.7	16.2	14.6	14.1

ANNEX 4

Geographic distribution of investors holding portfolio assets in EA-10 economies (by value)

(US\$ bn)

	EA-8				EU-15				US			
	2001	2002	2003	2004	2001	2002	2003	2004	2001	2002	2003	2004
China	11.7	11.2	24.8	35.3	4.5	5.1	13.1	16.1	3.0	5.0	13.7	12.7
Japan	20.0	12.9	15.8	18.6	201.0	185.9	273.4	387.8	197.8	195.4	291.9	369.8
Hong Kong	11.6	9.2	14.1	18.6	44.1	25.8	41.5	55.8	32.0	23.7	37.7	37.4
Korea	14.2	17.7	21.6	24.3	22.8	27.9	42.4	55.8	34.5	39.6	53.4	73.6
Singapore	5.6	7.1	9.2	11.3	17.4	11.7	16.1	22.3	22.8	19.9	25.0	29.2
Taiwan	3.9	4.5	5.6	6.6	14.3	5.4	23.7	31.0	19.9	7.3	27.2	34.9
Indonesia	1.2	2.8	3.0	3.7	1.6	0.9	4.5	6.2	1.8	3.1	5.1	7.0
Malaysia	12.3	12.2	16.1	26.5	4.9	3.4	9.7	16.3	4.3	6.4	8.0	10.7
Philippines	4.2	3.4	3.4	3.3	2.5	1.9	6.7	6.8	4.0	4.6	5.0	5.7
Thailand	4.8	4.6	8.3	7.0	3.9	4.1	9.5	10.5	2.7	3.3	7.3	7.1
EA-10	89.5	85.6	121.9	155.3	316.8	272.1	440.6	608.7	322.9	308.1	474.3	588.1
EA-10 ex Japan	48.0	52.7	83.6	108.0	115.9	86.2	167.2	220.8	125.0	112.7	182.5	218.2
<i>Memorandum item:</i>												
EU-15	585.2	653.7	800.6	943.6	3602.2	4374.8	6132.5	7709.0	1203.6	1136.3	1537.8	1769.1

ANNEX 5

Geographic distribution of investors holding equities in EA-10 economies (by value)

(US\$ bn)

	EA-8				EU-15				US			
	2001	2002	2003	2004	2001	2002	2003	2004	2001	2002	2003	2004
China	7.3	7.4	19.6	28.8	3.1	4.0	11.4	12.9	2.4	3.9	13.1	11.6
Japan	3.8	4.3	6.5	9.1	125.8	115.2	183.2	255.4	170.7	155.6	255.5	330.4
Hong Kong	8.1	5.9	9.5	15.1	34.4	24.0	38.6	49.2	30.2	22.0	36.2	35.4
Korea	2.7	3.3	3.9	5.9	15.4	20.8	32.6	43.8	29.5	33.3	49.1	66.6
Singapore	2.8	2.6	4.1	4.7	9.2	9.3	12.7	16.9	21.4	18.0	21.9	24.0
Taiwan	2.9	2.8	4.4	4.6	13.6	10.0	21.2	28.2	19.6	7.0	27.0	34.6
Indonesia	0.4	1.5	1.1	1.7	1.2	1.6	3.6	5.2	1.5	2.3	4.4	6.1
Malaysia	6.4	5.3	5.2	7.2	3.2	3.9	5.9	6.9	2.6	3.0	4.1	6.5
Philippines	0.8	0.6	0.6	0.7	0.6	0.4	0.9	1.2	1.3	1.0	1.6	2.2
Thailand	2.3	2.7	5.6	4.7	3.1	3.7	8.7	9.7	1.9	2.5	6.5	6.0
EA-10	37.5	36.4	60.6	82.4	209.5	192.8	318.8	429.4	281.1	248.7	419.4	523.4
EA-10 ex Japan	25.5	25.4	42.9	55.9	83.7	77.6	135.6	174.0	110.4	93.1	163.9	193.0
<i>Memorandum item:</i>												
EU-15	104.3	96.0	128.0	178.7	1383.5	1291.6	1817.6	2347.7	843.4	689.2	977.0	1167.4

Geographic distribution of investors holding bonds in EA-10 economies (by value)

(US\$ bn)

	EA-8				EU-15				US			
	2001	2002	2003	2004	2001	2002	2003	2004	2001	2002	2003	2004
China	4.4	3.8	5.1	6.5	1.4	1.1	0.9	3.1	0.6	1.0	0.7	1.1
Japan	16.2	8.5	9.3	9.5	75.2	70.7	90.2	132.5	27.1	39.9	36.4	39.4
Hong Kong	3.5	3.3	4.4	3.5	9.7	1.8	2.9	6.7	1.9	1.7	1.5	2.0
Korea	11.4	14.4	17.7	18.4	7.4	7.1	5.0	12.0	4.9	6.3	4.3	7.0
Singapore	2.8	4.6	5.1	6.6	8.2	2.5	3.4	5.5	1.4	1.9	3.1	5.2
Taiwan	1.1	1.7	1.2	2.0	0.7	0.3	1.1	2.7	0.3	0.3	0.3	0.3
Indonesia	0.7	1.2	1.8	2.0	0.4	0.2	0.9	1.0	0.3	0.8	0.7	0.9
Malaysia	5.9	6.8	10.9	19.3	1.7	1.2	3.8	8.5	1.7	3.3	3.9	4.2
Philippines	3.4	2.8	2.8	2.7	1.9	1.7	5.8	5.5	2.7	3.5	3.4	3.5
Thailand	2.4	1.9	2.7	2.3	0.8	0.5	0.8	0.8	0.8	0.7	0.9	1.2
EA-10	52.0	49.0	61.0	72.8	107.3	87.0	114.8	178.3	41.7	59.4	54.9	64.7
EA-10 ex Japan	22.5	27.2	40.4	52.1	32.2	16.3	24.5	45.8	14.6	19.5	18.6	25.3
<i>Memorandum item:</i>												
EU-15	480.9	557.4	672.0	763.8	2218.7	3095.0	4300.1	5361.2	360.2	447.1	560.7	601.7

Geographic distribution of investors holding equities in the EA-10 economies
(as a percentage of total equity holdings by global investors)

(% of total)

	EA-8				EU-15				US			
	2001	2002	2003	2004	2001	2002	2003	2004	2001	2002	2003	2004
China	54.9	44.6	42.7	51.9	23.2	24.3	24.8	23.2	17.8	23.9	28.4	21.0
Japan	1.1	1.4	1.3	1.4	37.8	37.6	36.9	39.5	51.4	50.8	51.5	51.1
Hong Kong	10.2	9.8	9.7	13.9	43.0	40.1	39.1	45.4	37.7	36.7	36.7	32.7
Korea	5.3	5.4	4.3	4.7	29.7	33.8	35.3	35.0	57.0	54.1	53.1	53.3
Singapore	7.7	8.1	9.7	9.7	25.5	29.3	30.3	34.7	59.1	56.7	52.2	49.3
Taiwan	7.4	13.0	7.9	6.5	34.9	46.6	38.1	40.0	50.3	32.8	48.5	48.9
Indonesia	11.9	20.0	8.3	9.2	32.4	20.9	27.3	28.6	42.5	30.6	33.2	33.7
Malaysia	49.4	42.0	32.3	31.9	24.6	30.9	36.4	30.9	20.0	23.8	25.3	28.8
Philippines	22.0	29.1	17.7	15.2	16.8	20.5	26.7	28.7	39.0	48.4	49.9	51.6
Thailand	29.9	28.8	24.8	21.9	39.6	38.7	39.0	45.1	24.6	26.9	28.9	27.7
EA-10 average	6.5	6.9	6.8	7.4	36.1	36.4	36.0	38.3	48.4	47.0	47.4	46.7
EA-10 ex Japan	10.3	11.4	11.0	11.8	33.7	34.8	34.8	36.7	44.5	41.8	42.0	40.7
<i>Memorandum item:</i>												
EU-15 average	3.9	4.0	3.8	4.3	52.4	54.2	54.3	56.0	31.9	28.9	29.2	27.8

Geographic distribution of investors holding bonds in the EA-10 economies
(as a percentage of total bond holdings by global investors)

(% of total)

	EA-8				EU-15				US			
	2001	2002	2003	2004	2001	2002	2003	2004	2001	2002	2003	2004
China	62.6	61.0	72.1	58.0	20.1	17.4	12.1	27.6	9.0	16.1	9.4	9.6
Japan	7.7	4.3	4.0	3.3	35.9	35.5	39.2	46.2	12.9	20.0	15.8	13.7
Hong Kong	20.7	41.6	43.0	22.2	58.2	23.0	28.2	42.0	11.3	21.3	14.1	12.3
Korea	45.9	50.6	63.9	47.7	29.5	25.1	18.0	31.1	19.8	22.2	15.6	18.1
Singapore	19.6	44.3	39.1	34.7	56.2	23.8	25.5	28.6	9.9	18.6	23.3	27.4
Taiwan	51.4	74.0	43.8	38.6	32.6	12.5	42.3	52.5	12.2	11.2	9.6	6.4
Indonesia	37.9	38.5	33.4	31.1	21.5	5.2	17.1	16.4	16.1	25.3	12.6	13.7
Malaysia	61.3	57.9	57.2	59.1	17.9	10.5	20.0	26.1	17.3	28.2	20.3	12.9
Philippines	37.0	32.3	22.0	20.7	20.8	19.7	45.3	43.2	28.8	41.2	26.5	27.0
Thailand	57.6	56.8	58.7	52.4	18.1	13.5	16.5	16.9	18.5	21.6	18.7	25.9
EA-10 average	17.3	17.4	18.3	16.8	35.8	30.9	34.5	41.2	13.9	21.1	16.5	14.9
EA-10 ex Japan	24.9	33.2	39.4	35.6	35.6	19.9	23.9	31.3	16.2	23.8	18.1	17.3
<i>Memorandum item:</i>												
EU-15 average	13.2	11.4	10.2	9.5	60.7	63.5	65.2	66.9	9.9	9.2	8.5	7.5

ANNEX 6

Cross-border bank claims in Asia

(US\$ bn)

	2001	2002	2003	2004	2005
Japan	119.3	93.6	93.3	111.2	123.4
Hong Kong	210.0	195.0	210.0	252.1	245.5
Korea	–	–	18.1	21.1	–
Taiwan	22.1	20.7	22.9	23.7	30.6

Source: BIS, HKMA estimates

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