

Recent developments in monetary and financial integration in Asia

SOPANHA SA

*International and European Relations Directorate
International Monetary Relations Division*

JULIA GUÉRIN

*Macroeconomic Analysis and Forecasting Directorate
Macroeconomic Analysis and International Syntheses Division*

Asia's share of world trade has expanded constantly over the last two decades. This increase reflects, inter alia, the considerable strengthening of trade links between the countries of the region, fostered by the vertical specialisation of the Asian economies. In the 1980s, the most advanced economies in the region, e.g. Japan, relocated the most labour-intensive stages of their production processes to the newly-industrialised Asian economies like South Korea and Singapore and then, in the 1990s, to emerging Asia, i.e. Indonesia, Malaysia, the Philippines and Thailand. The emergence of China has also given significant impetus to regional trade integration. Surging intra-regional direct investment flows have accompanied and shored up trade flows, however, portfolio investment flows and cross-border bank loans have remained limited.

Given that production processes within the region are complementary and that the final destination for exports is outside the region, the lack of a regional exchange rate arrangement in Asia does not appear to be a concern in the short term. Indeed, the regional integration initiatives adopted in Asia in the aftermath of the 1997-1998 financial crisis aim to build further resilience to financial market turbulence.

Firstly, deeper and more liquid local bond markets should make it possible to reduce the double financial mismatch, i.e. the currency mismatch and maturity mismatch, which largely sustained the crisis. In this regard, the ASEAN+3 Asian Bond Market Initiative examines the supply-side issues while the Asian Bond Funds initiative of the Executives' Meeting of East Asia-Pacific Central Banks (EMEAP) deals with demand-side issues via the pooling of resources to buy bonds issued by member countries. Secondly, the Chiang Mai Initiative, which consists in a network of currency swap arrangements between the central banks of the ASEAN+3 member states, provides these countries with a regional financial assistance mechanism in the event of a liquidity crisis.

The Asian vertical model of production appears to have reached its limit and is evolving towards a more "horizontal" model in terms of both production (substitutability of production processes as a result of the shift towards higher value-added activities) and consumption (expansion of the regional market linked to the growth potential of domestic Chinese demand). Regional monetary co-operation could therefore aim in the future at curbing intra-regional exchange rate fluctuations in order to promote trade and investment within the region.

NB: The composition of the various groups of countries referred to in this study may be found in the Appendix.

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In 2004, seven years after the financial crisis, emerging Asia had become the main driver of global economic growth, accounting for 43% of world GDP (in purchasing power parity) and 15% of world trade.

Since the early 1990s, its growing share of world trade has been reflected in expanding trade with the industrialised economies (United States, Europe) and also with the other Asian countries. The vertical structure of production processes between the Asian economies accounts notably for the surge in trade, which has also gone hand in hand with intra-regional foreign direct investment (FDI). In this context of vertical specialisation within the region and reliance on final consumption markets outside the region, the peg of Asian currencies to the US dollar has been decisive. However, in 1997-1998, the financial crisis that affected the economies in the region called a halt to the rapid growth of their world and intra-regional trade. The Asian economies therefore developed several regional initiatives to reduce their vulnerability to external shocks.

This article examines the various regional initiatives that have been developed in Asia in the monetary and financial areas in the wake of the 1997-1998 crisis. It first seeks to take stock of trade and financial integration in Asia. It then goes on to analyse the objectives of Asian monetary and financial integration and outline the processes that have been implemented to achieve these goals.

1| REGIONAL INTEGRATION IN ASIA: AN OVERVIEW

Based on the promotion of exports, the economic development strategy implemented by Asian countries is at the root of the vigorous intra-regional trade and the emergence of China as a trade hub (1|1). Simultaneously, intra-regional FDI flows, which have accompanied trade expansion, have increased sharply, while bank lending and other types of cross-border capital flows (equity and bonds) have remained limited (1|2).

1|1 Closer trade integration

INTRA-REGIONAL TRADE STRUCTURE

The Asian economies' trade openness has expanded substantially over the last decade. Measured by the ratio of exports and imports to GDP, the degree of openness of these economies was multiplied by over 1.7 between 1990 (31%) and 2004 (55%). The ratio currently ranges from 25% to 84% for China, South Korea and Japan and is very high for Indonesia, Malaysia, the Philippines and Thailand (119%), which makes the latter economies more vulnerable to exogenous shocks (Table 1).

The greater openness of the ASEAN+3 economies (ASEAN, China, South Korea and Japan) reflects their increasing contribution to world exports and imports. These economies' share of world trade rose from 14.5% in 1990 to over 19% in 2004. Though a high degree of openness does not necessarily reflect substantial intra-regional trade, Asian economies' increased contribution to world trade has been accompanied by the strengthening of trade links within the region.

Table 1
Trade openness of Asean+3 countries
Compared with the United States and the Euro area

(exports and imports of goods and services, ratios as a % of GDP; data in value terms)

	Exports (a)		Imports (b)		Total trade (a + b)	
	1990	2004	1990	2004	1990	2004
ASEAN+3 countries	16	29	15	26	31	55
<i>of which :</i>						
Japan	11	14	10	12	20	25
China	15	40	12	37	27	76
Korea	28	44	29	40	57	84
Indonesia, Malaysia, the Philippines and Thailand	35	62	39	57	74	119
United States	9	10	11	15	20	25
Euro area (intra and extra-area trade)	28	37	27	35	55	71

Source: International Monetary Funds (IMF); Banque de France calculations

Box 1**Indicators of intra-regional trade**

Two indicators are traditionally used in the literature to assess intra-regional trade: a relative indicator and an indicator of intensity. They are defined as follows:

The relative indicator of intra-regional exports (A): $A = X_{ij} / X_i$

The relative indicator of intra-regional imports (A'): $A' = X_{ji} / X_i$

The relative indicator of intra-regional trade (A''): $A'' = (X_{ij} + X_{ji}) / (X_i + X_i)$

The indicator of intensity of intra-regional trade to exports (B) or to imports (B'):

$$B = \frac{X_{ij} / X_{..}}{(X_i / X_{..})(X_j / X_{..})} = \frac{X_{ij} / X_i}{(X_j / X_{..})} ; B' = \frac{X_{ji} / X_{..}}{(X_i / X_{..})(X_j / X_{..})} = \frac{X_{ji} / X_i}{(X_i / X_{..})}$$

or X_{ij} = Exports from country (or region) i to country (or region) j ;
 X_{ji} = Imports from country (or region) i from country (or region) j ;
 X_i = Total exports from country (or region) i ;
 X_i = Total imports from country (or region) i ;
 $X_{..}$ = World exports = World imports.

The relative indicator compares trade between two trading partners (country or geographical area) to the world trade of one of the two trading partners (country or area).

The indicator or index of intensity assesses the trade between two trading partners while taking account of their share of world trade. Therefore, if the index is equal to one, the intensity of bilateral (or regional) trade is neutral; if it is more (or less than) one, there is a bias in favour (or to the detriment) of regional trade.

Sources: Urata (2004).

Several indicators may be used to assess intra-regional trade (Box 1).

Intra-regional imports accounted for close to 44% of the total imports of ASEAN+3 countries in 2004 compared with 31% in 1990; intra-regional exports made up close to 35% of total exports, compared with 27% in 1990. Intra-regional trade increased from 29% of the total trade of ASEAN+3 countries in 1990 to 39% in 2004. The combined trade of the three main economies of the region –China, South Korea and Japan– accounts by itself for half of intra-regional trade. In comparison with Europe, at the start of the European integration process, the intra-regional trade of the countries that currently make up the euro area already accounted for roughly 60% of their world trade (Chart 1).

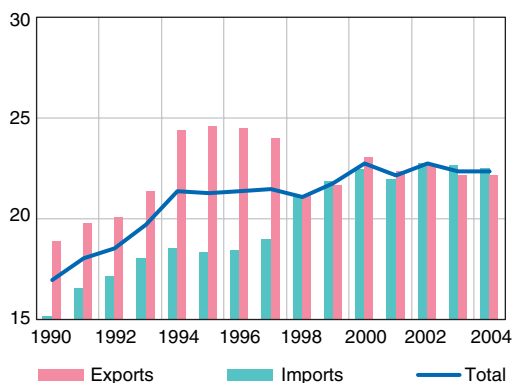
The 1997-1998 financial crisis, followed by the bursting of the new technologies bubble in 2001, put a damper on Asian countries' world and intra-regional trade. During these different episodes, intra-regional trade slowed slightly more markedly than world trade. Since 2002, Asian countries' intra-regional trade has found a second wind and is tending towards its pre-crisis level (Chart 2).

Moreover, the trend of the intensity index for intra-regional export trade over the past decade confirms Asia's strong regional trade bias. This bias is however much more pronounced for the ASEAN countries (index close to 4) than for the ASEAN+3 countries (index close to 2) because ASEAN+3 trade is strongly geared

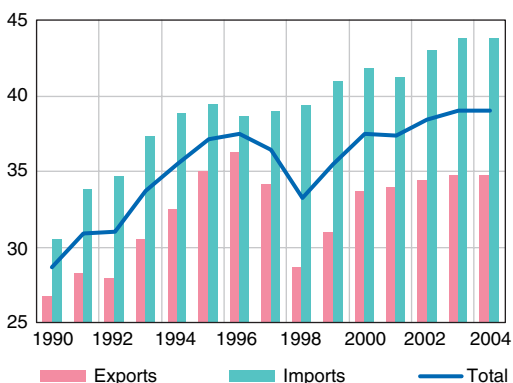
Chart 1
Intra-regional trade between ASEAN and ASEAN+3 countries and the European Union

(exports and imports of intra-regional goods, data in value terms, ratios as a % of world trade)

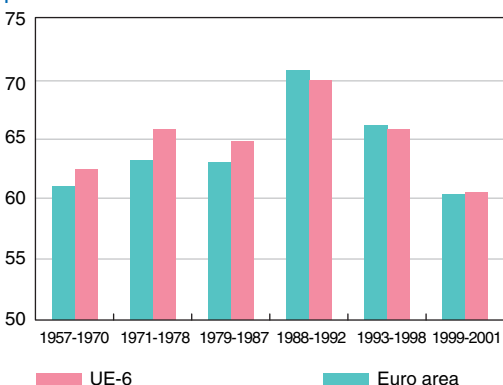
ASEAN



ASEAN+3



European Union

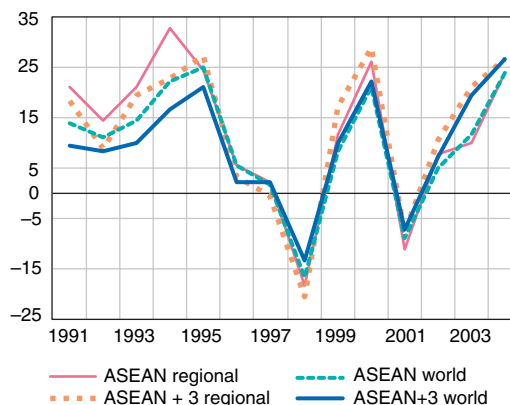


Sources: IMF, Asian Development Bank (ADB), Dorrucchi et al. (2002); Banque de France calculations

towards countries outside the region (Chart 3). In international comparisons, Sakakibara and Yamakawa (2004) show that ASEAN has higher intra-regional trade intensity than other areas such as the European Union and NAFTA, whose intensity

Chart 2
Growth rate of ASEAN and ASEAN+3 countries' world and intra-regional trade

(trade in goods in value terms, annual percentage growth rate)

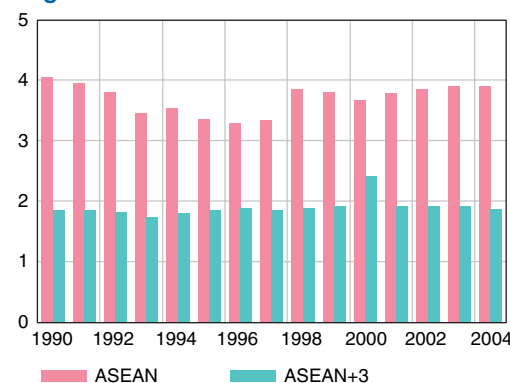


Source: ADB

indices are at around 2 and 3 respectively. In the case of ASEAN + 3, the regional bias is stronger than for Europe but less so than for NAFTA due to the less marked regional preference shown by China, Japan and South Korea.

The rapid growth in intra-regional trade cannot be solely attributed to a "gravity effect" linked to the economic size and the geographical proximity of the ASEAN + 3 countries. Using a gravity model for trade between the three major economies of the region (China, South Korea and Japan) and the ASEAN countries over the last two decades, Kim (2002) shows that the "observed" level of trade between these two groups of countries is higher than the "predicted" level. This therefore points to the existence of other factors accounting for the intensity of intra-regional trade.

Chart 3
Intensity index for ASEAN and ASEAN+3 countries intra-regional trade



Source: ADB

Indeed, the sharp acceleration of intra-regional trade also appears to be increasingly traceable to the vertical integration of these economies' production chains, like Japan and South Korea in the 1960-1980s period. The higher-income economies retain the capital-intensive processes and relocate the labour-intensive processes to the countries with lower incomes, specialised in assembly operations. Akamatsu (1962) and Yamazawa (1990) referred to the "flying geese" pattern of development of the Asian economies. This vertical redistribution of labour within the Asian economies can moreover be seen in the concentration of their intra-regional trade in intermediate goods. Trade in intermediate goods rose from 25% of intra-regional exports at the end of the 1970s to 47% in 2002 (Zebregs, 2004).

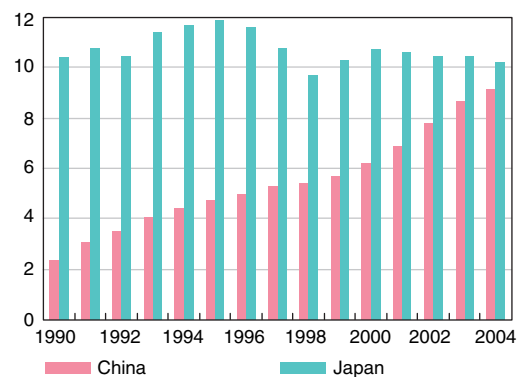
CHINA: A TRADE HUB

Over the last two decades, China has replaced Japan as Asia's trade hub.

In the mid-1980s, Japan initiated the vertical production process established within the area, with Japanese firms relocating their production to the four "dragons" (Hong Kong, South Korea, Singapore and Taiwan) and then to the four "tigers" (Indonesia, Malaysia, Thailand and the Philippines). These countries' economic catch-up and their openness to world trade subsequently curbed the fast growth of their trade with Japan (imports and re-exports). Conversely, these economies became increasingly commercially dependent on China. China's share of intra-regional trade has expanded constantly since 1990 (Chart 4).

In the 1980s and 1990s, China's trade structure was dominated by transport machinery and equipment and manufactured goods. In fact, Indonesia, Thailand, the Philippines, and to a lesser extent Malaysia, which had also specialised in these sectors, ran the risk of being overshadowed by China. Conversely, a rise in quality in Japan, Singapore and South Korea led these countries to develop a trade structure complementary to that of China.

Chart 4
ASEAN+3 countries' share of trade with China and Japan
(as a % of the total)

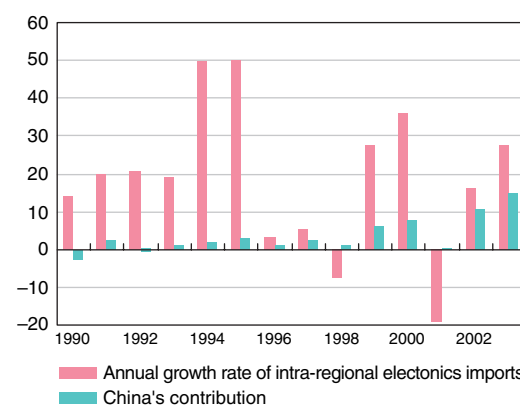


Source: ADB

From the 2000s onwards, China diversified its trade base by focusing on trade in computer and communications equipment and electronics, becoming a competitor of Indonesia, Thailand, the Philippines and Malaysia in these sectors. China's contribution to the growth in intra-regional electronics imports (Chart 5) has increased over the past three years. Soaring intra-regional trade in the electronics sector reflects the development of assembly trade within the area to re-export.

Chart 5
Growth of intra-regional electronics imports
among ASEAN+3 countries

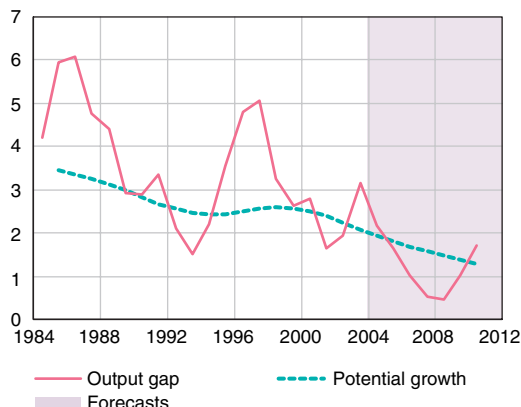
(annual percentage growth rate and China's contribution in percentage points of the annual growth rate)



Source: Chelem dataset (Harmonised Accounts on Trade and the World Economy)

Chart 6
Trend towards the convergence of potential growth and business cycles of the ASEAN+3 countries

(standard deviation of output and potential growth gaps)



Note: trend/cycle decomposition using a filter (HP, $\lambda = 100$, based on annual data)

Source: IMF, World Economic Outlook; Banque de France calculations

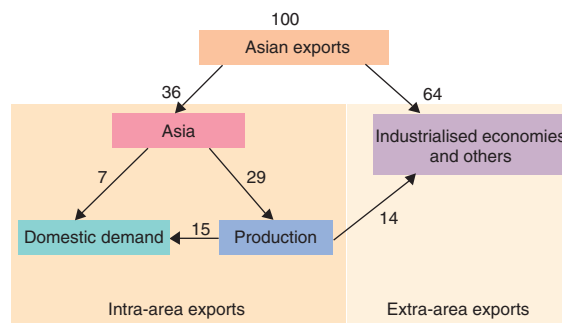
Overall, trade integration in Asia is likely to increase the interdependence of the ASEAN + 3 economies and therefore, make their growth less dependent on the world economy and more centred on China. In particular, China may be called upon to play a key role in the region as its intra-industry trade develops and its domestic demand expands. In fact, the sharp increase in intra-regional intra-industry trade has been accompanied by a trend towards the synchronisation of business cycles across the ASEAN + 3 countries that seems to have become more pronounced since the early 2000s (Chart 6).

Lastly, the high degree of trade openness and the extensive intra-regional trade may permit the economies of the region to benefit from China's strong growth. However, these factors also constitute a risk in the event of an exogenous shock affecting one of the economies.

THE ROLE OF FINAL EXPORT MARKETS OUTSIDE ASIA

Despite soaring intra-regional trade, the vertical re-organisation of production chains makes the

Chart 7
Destination of exports from emerging Asia excluding India (%)



Source: Monetary Authority of Singapore (2003)

Asian economies ultimately reliant on final demand from the US or European markets.

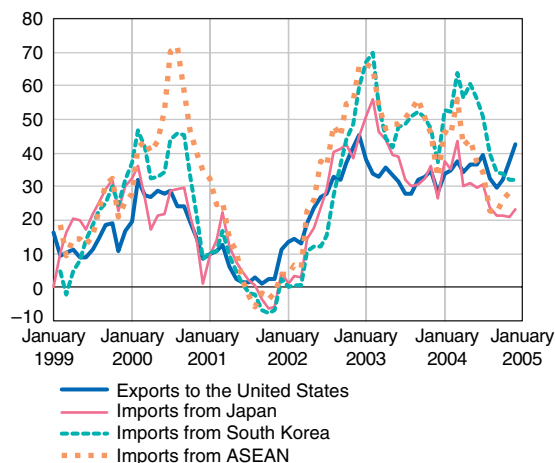
An estimate by the Monetary Authority of Singapore shows that while 36% of the area's exports of intermediate goods are intra-regional exports, 14% are subsequently re-exported outside the region. Overall, 78% of the region's exports are to final markets outside the region while 22% are absorbed by the region (Chart 7).

Moreover, a recent study (Bank of Japan, 2004) illustrates the existing "transmission chain", which starts from the final export market, *i.e.* the United States, and goes up to the Japanese economy, *via* China and the South-East Asian economies. The findings show that a positive shock of 1% on the United States' GDP leads not only to a rise in Japanese exports to the US market but also a fairly similar increase in Japanese exports to the East Asian economies after two years.

Regarding China's role as the assembly platform of Asia, the relation of dependency between China's imports from other Asian countries and China's exports to the United States is illustrated by the relatively similar growth patterns of the two types of trade (Chart 8).

Chart 8
China's trade – exports to the United States
and imports from Asia

(three-month moving average year-on-year growth as a %)



Source: China Customs Statistics

1|2 Slower progress in financial integration

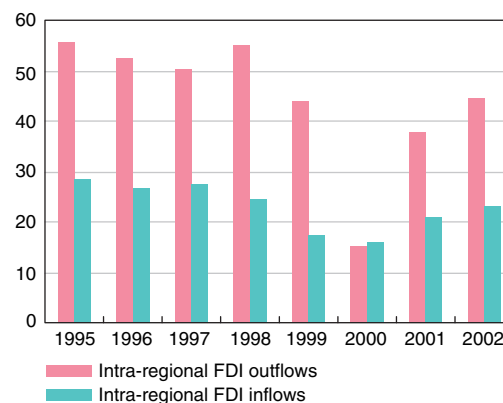
PREDOMINANT INTRA-REGIONAL DIRECT INVESTMENT

Concomitant with the growing intra-regional trade, surging FDI flows between the Asian economies have strengthened the regional integration process. In fact, in the model of vertical specialisation, investments made by firms from the most advanced economies such as Japan, South Korea and Singapore in the emerging or developing Asian economies have helped to boost their trade.

Intra-regional FDI outflows have picked up significantly since 2000, accounting for 44% of the ASEAN+3 countries' total FDI outflows in 2002 (a proportion relatively close to that of intra-regional trade flows). Intra-regional FDI inflows have stabilised at around 20% of total inward FDI. Intra-regional FDI flows nonetheless remain below their pre-crisis levels (Chart 9). However, the three major regional economies' (China, South Korea and Japan) share of inward and outward FDI outside the area tends to put this trend into perspective. Thus, in 2002, outward FDI from ASEAN to ASEAN+3 accounted for 73.5% of their total FDI outflows while 57% of FDI inflows into ASEAN were from ASEAN+3. Japan and Singapore are the main

Chart 9
Intra-regional FDI flows in ASEAN+3 countries
(as a % of total)

(as a % of total)



Source: United Nations Conference on trade and development; Banque de France calculations

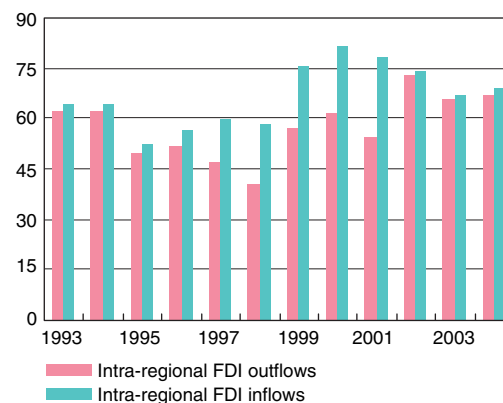
intra-regional FDI origin countries while China and Malaysia are the main recipients.

In comparison, FDI inflows and outflows within the EU currently exceed 65% of the FDI the European countries receive from or invest in the rest of the world (Chart 10).

Since the Asian crisis, the regional magnets for FDI have shifted from the ASEAN countries to China (Chart 11). This move was spurred not only by the direct impact of the crisis, but also, *inter alia*, by China's growing attractiveness, stemming from its cheap labour costs and its on-going trade

Chart 10
EU countries' intra-regional FDI flows
(as a % of total)

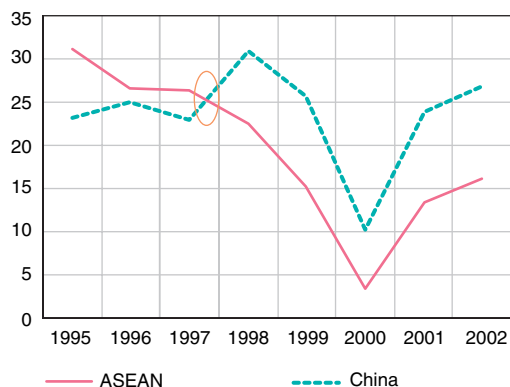
(as a % of total)



Note: The data concern EU-15 up to 2000 and EU-25 from 2001.

Source: Eurostat; Banque de France calculations

Chart 11
Destination of ASEAN+3 countries' FDI flows

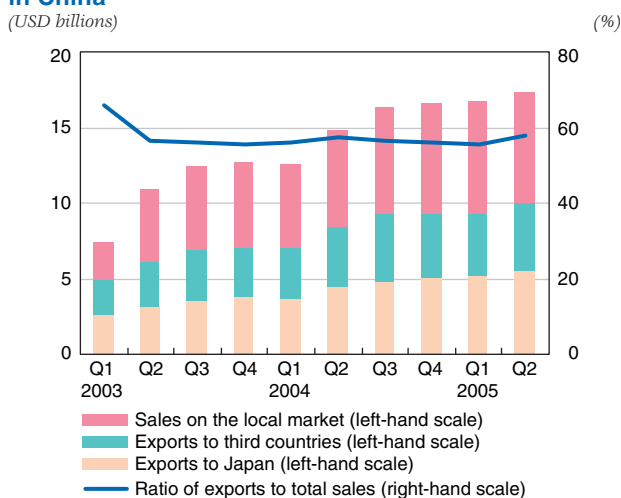


Source: United Nations Conference on trade and development.

and financial liberalisation. Thus, though in 1995 ASEAN received 31% of ASEAN+3 countries' total FDI inflows and China 23%; in 2002 the grouping received only 16% compared with China's 27%.

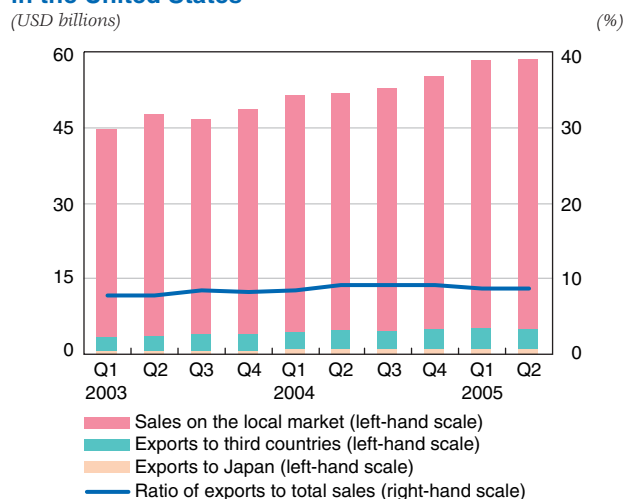
As an example, according to the findings of the survey conducted by Japan's Ministry of the Economy, Trade and Industry, until recently, FDI by Japanese companies in China was geared primarily towards exporting and not selling on the local markets, unlike their direct investments in the United States (Charts 12 and 13).

Chart 12
Purpose of Japanese companies' direct investment in China



Source: Ministry of the Economy, Trade and Industry of Japan (METI)

Chart 13
Purpose of Japanese companies' direct investment in the United States



Source: Ministry of the Economy, Trade and Industry of Japan (METI)

LIMITED CROSS-BORDER BANK LENDING AND PORTFOLIO FLOWS

The Asian economies' financial integration appears to be trailing considerably behind¹ their trade integration.

While their integration into the international financial markets has advanced substantially in recent years,² regional financial markets remain poorly developed. In general, the South-East Asian economies' stock markets appear to be more closely integrated into the US market than the Japanese market. For example, foreign investors accounted for close to 30% of turnover on the stock markets of Japan, South Korea and Thailand in 2004, but only a minority of these investors seem to come from other Asian countries (IMF, 2005a).

Likewise, banking integration appears to be more advanced with banks outside the region. The foremost foreign banks in terms of outstanding claims are European (British in particular) and US banks, which predominate in a number of Asian countries such as China, Indonesia, Malaysia, the Philippines and Thailand. Japanese banks often

¹ It is moreover difficult to measure because of the lack or inaccessibility of data.

² These markets captured half of the private capital flows to emerging economies in 2003, and two-thirds in 2004.

come third, except in Korea where they rank first among foreign banks (IMF, 2005a).

This assessment of the deepness of financial markets and banking integration in the region must nonetheless be put into perspective.

A number of studies show that Asian cross-border capital flows are probably underestimated because estimates do not cover transactions carried out by Asian investors on offshore markets. For instance, most Asian sovereign and corporate bond issues denominated in foreign currencies are denominated in US dollars outside Asia (up to 80% in the United States and in Europe), however a large proportion of these issues are underwritten by South-East Asian investors active on these markets (BIS, 2002; IMF, 2005a).

Similarly, Asian banks play a leading role internationally in the structuring of syndicated bank loans granted to Asian residents, as arrangers as well as fund providers (BIS, 2002).

Overall, intra-regional trade and FDI flows in Asia essentially reflect a vertical production model, while the other intra-regional financial flows are, in all likelihood, developing outside the region on offshore markets.

2| MONETARY AND FINANCIAL INTEGRATION: OBJECTIVES AND INITIATIVES

Due to the vertical structure of the different stages of production in the region and the final destination of the regional exports (United States and Europe), the lack of a regional exchange rate arrangement in Asia does not appear to be a concern in the short term. However, in the long run, a “horizontal” model will emerge from, the substitutability of production stages resulting from the shift towards higher value-added activities within the region, and an expansion of the regional

consumer market reflecting the growth potential of Chinese domestic demand. As this model gradually develops, closer monetary co-operation would be useful to reduce intra-regional exchange rate fluctuations and promote intra-regional trade and investment (2|1). Indeed, the regional integration initiatives conducted in the wake of the Asian crisis were more the result of financial concerns than monetary objectives. These initiatives aimed to guard against the risks of financial crises by fostering, at the regional level, the development of local bond markets (2|2) and a pooling of foreign exchange reserves (2|3).

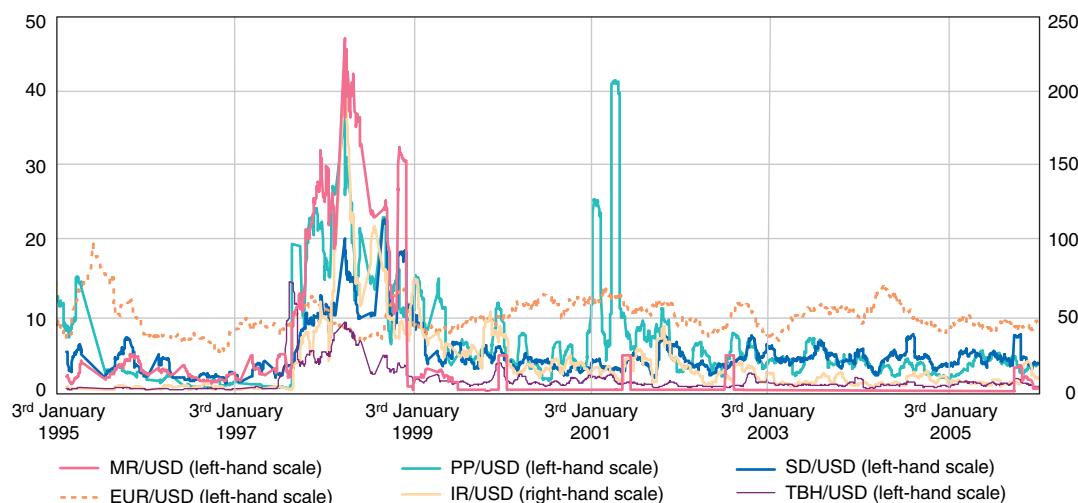
2|1 Increasing regional monetary stability to facilitate intra-regional trade and investment

As with the European experience, the strengthening of monetary co-operation in Asia could help to boost intra-regional trade and investment. The region already enjoys relatively stable exchange rates as many of its currencies are pegged to the US dollar. However, closer intra-regional financial and trade links could prompt Asian countries to seek to stabilise intra-Asian bilateral exchange rates and, in the longer term, to form a regional currency union.

GUARANTEEING THE STABILITY OF INTRA-REGIONAL EXCHANGE RATES

According to the IMF classification (2005b), Malaysia and China adopted fixed exchange rates while Japan, South Korea, and the Philippines maintained floating exchange rates. Between these two extremes, Cambodia, Indonesia, Laos, Myanmar, Singapore, Thailand and Vietnam chose a managed floating rate regime and Brunei opted for a currency board regime. Beyond this diversity of exchange rate regimes, many economies in the region chose to peg *de facto* or *de jure* their currency to the US dollar in order to maintain the competitiveness. The relative stability of intra-regional exchange rates

Chart 14
Three-month historical volatility of the exchange rates of ASEAN-5 countries and the euro against the dollar



* Note: MR-Malaysian ringgit; PP-Philippine peso; SD-Singapore dollar; IR-Indonesian rupiah; TBH-Thai baht.

Sources: national sources; Banque de France calculations

is therefore ensured through the dollar link. Indeed, the exchange rates of Asian currencies against the dollar are generally less volatile than that of the euro (Chart 14).

Furthermore, the real effective exchange rates of a number of currencies in the region for which data are available have been relatively stable since early 2004 (Chart 15).

The ongoing strength of Asian trade with countries outside the region (United States and Europe) would not justify, at this stage, a common peg to a regional currency. Moreover, the “vertical” model of production structures in the region reduces the impact of exchange rate fluctuations on the different economies given the non-substitutability of the various stages of production. Conversely, in Europe, as the production process is more “horizontal”, the similarity of production activities makes the different economies more sensitive to exchange rates movements that could result in production activities being shifted to more competitive countries.

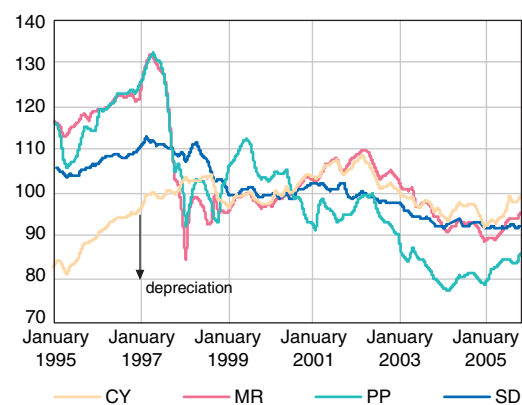
In the short term, a common peg is not a priority for Asian economies, but it may become necessary in the longer term. As the least developed countries in the region catch up, they will be able to move into higher value-added activities, using a “horizontal” production model, while the strong growth expected in Chinese domestic demand will boost trade *in fine*

between regional consumer markets, developing a horizontal consumption model. From then on, further monetary integration, which should reduce the direct exchange rate volatility between Asian currencies, would increase trade and financial flows within the region.

A number of proposals have been put forward to achieve an exchange rate arrangement in Asia, including pegging to one of the region’s currencies (yen or renminbi), to a currency outside the region, such as the dollar (Kwan, 2001; Nasution, 2005),

Chart 15
Real effective exchange rates

(100 = 2000)



Note: CY-Chinese yuan; MR-Malaysian ringgit; PP-Philippine peso; SD-Singapore dollar.

Source: IMF

or establishing a basket system of G-3 currencies, *i.e.* the euro, the dollar and the yen (Williamson, 2005; Ogawa *et al.*, 2004; McKinnon, 2002). In December 2005, the Asian Development Bank (ADB) announced that it was working on the composition of a basket of ASEAN+3 currencies. This basket, modelled on the European Currency Unit, would be a theoretical currency unit (the Asian Currency Unit), and is expected to be launched in June 2006. It will serve as a benchmark for managing the regional exchange rate fluctuations and will facilitate international comparisons with the dollar and the euro. In the longer term, it might result in the creation of a currency area.

ACHIEVING AN OPTIMAL CURRENCY AREA

In the 1960s, theories on Optimal Currency Areas (OCAs), pioneered by Robert Mundell (1961), maintained that, under certain conditions, a monetary union could lead to an increase in trade in the area. By reducing the costs of cross-border trade and financial flows and by removing exchange rate volatility in the region, an OCA would enhance trade (of goods and services) and investment between the countries forming the union (and boost its growth potential). These gains are to be set against the main cost associated with the formation of an OCA: the loss of autonomy in the conduct of national monetary policies. In this respect, literature on OCAs shows that the benefits (or costs) would increase (or decrease) according to:

- the flexibility of wages and prices in the countries of the union;
- the mobility of factors of production (capital and labour) between the countries of the union;
- the symmetry of the impact of shocks between the countries of the region;
- the degree of openness of the countries of the union;
- and the share of intra-regional trade.

For ASEAN countries, Eichengreen and Bayoumi (1996) developed a composite index taking account of the relative costs and benefits (asymmetrical shocks, exports structures, bilateral trade intensity and economic size) associated with member countries adopting a common currency.

On the basis of this index, they concluded that country pairs such as Singapore-Malaysia, Singapore-Thailand, Singapore-Taiwan, and Hong Kong-Taiwan were the best suited to form an OCA. In contrast, the case for Indonesia, South Korea and the Philippines was weaker. And the Malaysia-Thailand pair would have relatively little economic incentive to adopt such an external peg. Using the same approach, Madhur (2002) shows that ASEAN countries satisfy most of the OCA criteria. However, these indicators should be interpreted with caution. Frankel and Rose (1998), for instance, stress the endogeneity of some OCA criteria and show, in particular, that the closer the trade within the area, the more highly synchronized the business cycles.

2|2 Relocating financial intermediation activities within the region

Following the financial crisis of 1997-1998, Asian countries attempted to reduce their reliance on domestic and international bank borrowing by increasing the depth and liquidity of their local currency bond markets. They thus sought to enhance regional financial co-operation. These initiatives were spurred by two organisations: ASEAN+3 with the Asian Bond Market Initiative (ABMI) and the Executives' Meeting of East Asia-Pacific Central Banks (EMEAP) with the Asian Bond Fund initiative (ABF).

REDUCING THE ECONOMY'S RELIANCE ON FOREIGN-CURRENCY BANK FINANCING

Many factors account for the heavy reliance of both private and public Asian economic agents on short-term bank borrowing. First, the "financial repression" policies conducted by these countries in the 1970s explain why the financial markets are underdeveloped. In a "repressed" financial system, the government directly allocates bank credits to certain sectors such as agriculture, sets an interest rate ceiling for state bank lending, and bears *in fine* the credit risk. In this way, economic agents that can obtain cheap credits with low risk from state banks, have little incentive to use financial markets to raise funds from capital and securities markets. Furthermore, tax policies (*e.g.* stamp-duty on transfer of bond ownership)

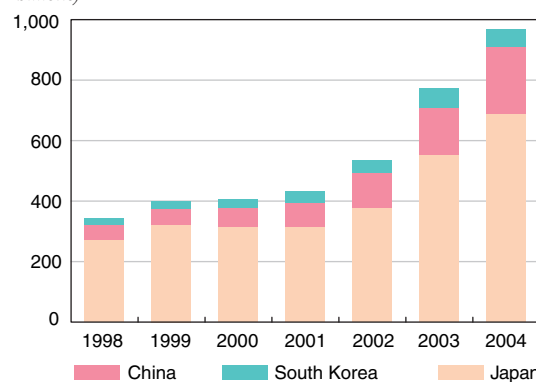
impede the development of the secondary market. Lastly, the lack of appropriate market infrastructures (clearing and settlement) is detrimental to the liquidity of these markets. As a result, local currency bond markets played a greater role after the financial crisis of 1997. The development of government bond markets acted as a catalyst for the corporate bond market (Luengnaruemitchai and Ong, 2005). Even though bank loans remain the main source of financing in emerging Asian economies, corporate and sovereign bond issuance is rising sharply in some countries. For instance, in 2004, bond issuance accounted for 75% and 39% of GDP in South Korea and Thailand respectively compared with 80% and 73% for bank loans. Moreover, these two countries have the largest corporate bond markets in the world measured as a percentage of GDP (IMF, 2005c).

The development of local currency bond markets should in particular reduce the vulnerability of Asian economies associated with double mismatches: maturity mismatch (*i.e.* long-term assets/short-term liabilities) and currency mismatch (*i.e.* assets in local currency/liabilities in foreign currency). Allen *et al.* (2002) attempted to quantify this double mismatch for Thailand in the period leading up to the crisis. Notably, they observed that at the end of 1996 a quarter of the liabilities in the banking sector and the non-bank private sector *vis-à-vis* the rest of the world were denominated in foreign currency, of which two-thirds and one-third respectively were due in the short term. Furthermore, more recently, the indicator constructed by Goldstein and Turner (2004) shows that, despite a reduction since the 1997 crisis, the currency mismatch persists in the Philippines, Indonesia, China, Thailand, and Malaysia.

CHANNELLING REGIONAL SAVINGS WITHIN THE REGION

McCauley (2003), in his analysis of the structure of capital flows to and from Asian countries since the 1997 crisis, stresses that while capital inflows have generally featured private investors, capital outflows can mainly be attributed to central banks from the region investing the proceeds of their foreign exchange market intervention in foreign assets. Genberg, McCauley, Park and Persaud (2005) estimated that in 2004, foreign public authorities, particularly in Asia, held around 70% of the outstanding stock of US Treasuries. Indeed, Asian countries' holdings of US Treasuries (public

Chart 16
Outstanding stock of US Treasuries
held by the main Asian investors
Public and private sectors combined
 (USD billions)



Sources: Treasury International Capital System (TIC), US Federal Reserve

and private sectors combined) have increased considerably over the recent period (Chart 16).

This trend reflects the lack of diversification of Asian central banks' portfolios, making them even more vulnerable to exchange rate risk in the event of a sharp depreciation of the dollar. Moreover, capital outflows from the region would thus increase the depth of the US and European bond markets, which act as financial intermediaries, instead of helping to develop Asian financial markets.

Ongoing capital account liberalisation in Asian economies should allow regional savings to be invested in the rest of the world as well as in the region (Eichengreen, 2004). For example, in Indonesia, China, and to a lesser extent in Thailand, foreign investors still cannot participate in local bond markets. However, the financial crises of the past decade have shown that the strengthening of financial systems has itself appeared to be a prerequisite for opening the capital account in the sequencing of financial liberalisation. For instance, the creation of money markets, bond markets (in particular for government bonds), foreign exchange markets, and interbank competition within the region would make it possible to ensure a more efficient allocation of capital, generate a higher return on regional savings and provide financing for investment at lower cost. In the longer run, these markets would help foster economic growth in these countries. Moreover, more flexibility in the exchange rate regime and the macroeconomic stability

of Asian economies may be necessary to accompany this financial liberalisation process.

In this context, the ABMI and ABF initiatives (see Box 2) aim to develop a regional bond market in parallel with domestic bond markets. The ABMI examines supply-side (issuers) issues, while the ABF deals with demand-side (investors) issues. ABF1 and

ABF2 differ from the ABMI in that they involve the pooling of foreign exchange reserves to buy bonds denominated in local and foreign currencies.

The resources involved in ABF1 and ABF2, which amount to USD 3 billion, should have only a minor impact on the liquidity of regional bond markets (whose outstandings total around USD 1,500 billion).

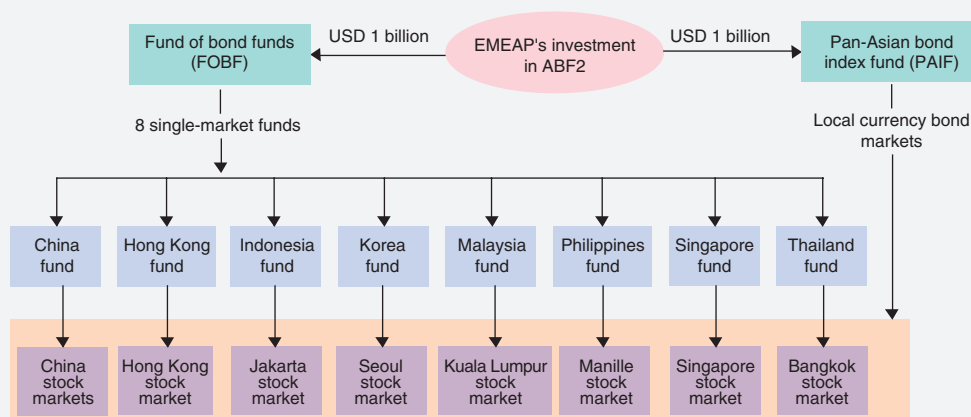
Box 2

The Asian Bond Market and Asian Bond Fund regional initiatives

ASEAN+3, with the technical support of the Asian Development Bank (ADB), launched in 2003, the Asian Bond Market Initiative (ABMI), which aimed to facilitate access to local bond markets by issuers and to strengthen infrastructures at the regional level. Six working groups were established under this initiative: New Securitised Debt Instruments, Credit Guarantee and Investment Mechanisms, Foreign Exchange Transactions and Settlement Systems, Issuance of Bonds Denominated in Local Currencies by Multilateral Development Banks, Foreign Government Agencies and Asian Multinational Corporations, Local and Regional Ratings Agencies and Technical Assistance Co-ordination. In the framework of the ABMI, three countries authorised multilateral institutions to issue local currency bonds. For instance, the ADB, the International Finance Corporation and the World Bank have already issued bonds denominated in Malaysian ringgit, while the ADB issued bonds denominated in Thai baht. In May 2005, the last two working groups, having reached their objectives, were dissolved.

In parallel, the Executives' Meeting of East Asia and Pacific (EMEAP) developed the Asian Bond Fund initiative (ABF1 and ABF2 created in 2003 and 2004 respectively). This initiative aims to meet the demand for Asian investment instruments from international investors (including Asian investors). Pooled resources from the foreign exchange reserves of EMEAP member countries are currently allocated to these bond funds. While ABF1 is fully managed by the Bank for International Settlements (BIS), ABF2 is managed by the private sector, but the BIS acts as the fund administrator. ABF1 pools reserves to the value of USD 1 billion, to be invested in US dollar denominated bonds issued by sovereign and quasi-sovereign borrowers in eight of the EMEAP economies (except Japan, New Zealand, and Australia). Following the success of the ABF1, EMEAP launched ABF2, which will invest USD 2 billion of EMEAP central bank reserves in local currency denominated bonds also to be issued by sovereign and quasi-sovereign in the same eight member countries. ABF2 comprises two components: the Pan-Asian Bond Index Fund (PAIF) and the Fund of Bond Funds (FoBF). The PAIF is a single-index bond fund investing in sovereign and quasi-sovereign domestic currency denominated bonds issued in the eight EMEAP markets. It provides Asian bond market investors with an excellent opportunity to diversify their portfolios. The FoBF comprises eight single-market funds investing in their respective markets. The ABF2 will gradually be opened up to institutional and retail investors from both within and outside the EMEAP region.

The ABF 2 structure for EMEAP investment



Nevertheless, the usefulness of these funds should not be overlooked. First, they may act as a catalyst for promoting new financial products denominated in local and foreign currencies, and for developing financial market infrastructures in the region. Second, they facilitate cross-border investment in that they encourage member countries to ease capital controls and speed up the implementation of fiscal and regulatory reforms at the local and regional levels.

2|3 Preventing and managing financial crises

The 1997-1998 crisis also highlighted the lack of co-ordination between Asian central banks against speculative attacks. In addition to the massive accumulation of foreign exchange reserves (around USD 2,000 billion in 2004, most of which are held by the three main ASEAN + 3 countries) resulting from the exchange rate policy, the strengthening of regional co-operation in monetary and financial areas is also seen as a safeguard against the risk of financial crises. For instance, regional surveillance and financial assistance mechanisms, such as the Chiang Mai Initiative (CMI), have been put in place.

STRENGTHENING REGIONAL SURVEILLANCE MECHANISMS

The ASEAN Surveillance Process was established in 1998, and extended in 1999 to Japan, China and South Korea (ASEAN + 3 Economic Review and Policy Dialogue). It is intended to facilitate decision-making and is guided by two principles: mutual interest and peer pressure. It is based on two mechanisms: monitoring to allow early detection of vulnerabilities and a peer review process to discuss the policy measures needed to address the vulnerabilities identified in the monitoring exercises.

To a lesser extent, other regional bodies such as Asia-Pacific Economic Cooperation (APEC) and the EMEAP are involved in reviewing recent economic and financial developments in the region. APEC has a large membership far beyond South-East Asia and provides a forum for exchanging information on a

wide range of topics: macroeconomic developments, exchange rates, financial markets, capital flows, and infrastructures. The diversity of its membership nevertheless makes it difficult to agree on common positions. The network of central banks established through EMEAP limits co-operation to monetary and financial areas as it mainly focuses on central bank issues such as financial markets, payment systems and banking supervision.

However, criticisms have been levelled at this multitude of regional bodies in charge of monitoring and surveillance in South-East Asia and the Pacific. Henning (2002) argues that the multiplicity and overlap of these institutions and mechanisms may have already reached the point of “diminishing returns”. He suggests therefore that these processes be streamlined in order to better allocate resources. In this respect, the Manila Framework Group, which consisted of deputy finance ministers and central bank governors of Asia-Pacific countries, was disbanded in 2004.

IMPLEMENTING THE REGIONAL LIQUIDITY SUPPORT FACILITY

ASEAN + 3 is the only organisation in the region to have considered a regional liquidity support mechanism in addition to its surveillance mechanism. The Chiang Mai Initiative (CMI) launched in 2000 and revised in 2005 is a region-wide defence against future crises and complements IMF financial assistance in averting financial crises. The initiative comprises the existing regional ASEAN Swap Agreement (ASA), which amounts to USD 2 billion, and extends the coverage to all ASEAN countries, and a network of bilateral swap arrangements³ (BSAs) among ASEAN + 3 members. Most agreements are dollar-denominated. In early February 2006, 19 BSAs amounting to USD 74 billion had been concluded, compared with USD 39.5 billion at end-April 2005. Automatic disbursement is limited to 20% of amount of this facility; any drawing beyond this limit requires an approval from the IMF, and therefore, is subject to IMF conditionality. To date, these facilities have not yet been used. However, the BSA (amounting to USD 6 billion) concluded between Indonesia and Japan when the Indonesian rupiah was under speculative pressure in August 2005 no doubt helped to calm the financial markets.

³ Participating countries are able to draw from the BSA for a period of 90 days at an interest rate of LIBOR + 150 basis points.

Table 2
Swap arrangements under the Chiang Mai initiative

(USD billions)

Lenders	Borrowers								Total
	Japan	China	Korea	Indonesia	Malaysia	Philippines	Singapore	Thailand	
Japan		3	13	6	3.5	3	3	3	34.5
China	3		4	2	1.5	1	–	2	13.5
Korea	8	4		1	1.5	1.5	–	1	17
Indonesia	–	–	1						1
Malaysia	–	–	1.5						1.5
Philippines	–	–	1.5						1.5
Singapore	1	–	–						1
Thailand	3	–	1						4
Total	15	7	22	9	6.5	5.5	3	6	74

Source: Japanese Ministry of Finance; Banque de France calculations

Under the CMI, China, South Korea, and Japan are the largest lenders and borrowers. Aside from these three major economies, Indonesia absorbs one-third of the available resources (Table 2).

In May 2005, ASEAN+3 decided to enhance the CMI by adopting a collective activation and decision-making process on the current network of bilateral swap arrangements, and an enhanced economic surveillance process at the ASEAN+3 regional level. This latter task was entrusted to the ADB.

The new CMI framework, which combines both stronger surveillance and increased financial resources, could help the countries in the region to ease their liquidity needs during a crisis. However, the amounts involved still remain far lower than external commitments to the three countries worst hit by the Asian crisis (South Korea, Indonesia, and Thailand), *i.e.* around USD 125 billion, of which

USD 40 billion from the IMF (Table 3). These regional liquidity arrangements must therefore be used to supplement other protection mechanisms against financial crises: IMF financial assistance and accumulation of foreign exchange reserves.

Table 3
Comparison of the funds available under the Chiang Mai Initiative in 2005 and under IMF financial support in 1997-1998

(USD billions, ratio in %)

	Amount available under the CMI			Funding by the international community in 1998			Ratio (a)/(b)
	ASA	BSA	Total (a)	IMF	Others*	Total (b)	
Thailand	0.2	6.0	6.2	4.0	13.2	17.2	36
Indonesia	0.2	9.0	9.2	15.0	34.7	49.7	18
South Korea	NA	22.0	22.0	21.1	37.3	58.4	38

* Total of bilateral and multilateral agreements

Source: IMF; Banque de France calculations

The regional monetary and financial initiatives implemented by Asian countries in the wake of the 1997-1998 crisis are intended to develop the role of financial markets in the financing of the economies and to reduce vulnerabilities associated with financial crises. However, this growing monetary and financial integration in Asia has to be achieved in an orderly manner to safeguard against the following two risks: a contagion risk associated with the integration of financial markets fostered by the Asian Market Bond and Asian Bond Fund initiatives, and a risk of moral hazard stemming from excessive risk-taking under the Chiang Mai Initiative.

These risks nevertheless seem to be contained in the short term given the small size of both Asian Bond Fund and Chiang Mai Initiative: USD 3 billion and USD 74 billion respectively, compared with bond outstandings and foreign exchange reserves of around USD 1,500 billion and USD 2,000 billion respectively. Moreover, the exchange rate policies of these countries are de facto pegged to the dollar and promote export-driven growth while contributing to the financing of global imbalances.

In the long term, it is likely that the amount of resources involved will increase, the production process will shift towards a "horizontal" model, and exchange rate issues will be examined with the greatest attention as soon as exchange rate regimes become more flexible. In this respect, lessons could be learnt from the European experience in particular on the role that can be played by supranational institutions and a group of core countries acting as an anchor for the regional integration process. The conditions for their creation and their viability are nonetheless beyond the scope of this article.

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APPENDIX

List of regions and acronyms used in this article

	Association of South East Asia Nations (ASEAN)		Executives' Meeting of East Asia Pacific Central Banks (EMEAP)	Asia Pacific Economic Cooperation (APEC)	North American Free Trade Association (NAFTA)
	ASEAN	ASEAN + 3			
Australia			x	x	x
Brunei Darussalam	x	x		x	
Cambodia	x	x			
Canada				x	
Chile				x	x
China		x	x	x	
South Korea		x	x	x	
United States				x	
Hong Kong			x	x	
Indonesia	x	x	x	x	
Japan		x	x	x	x
Laos	x	x			
Malaysia	x	x	x	x	
Mexico				x	
Myanmar	x	x			
New-Zealand			x	x	
Papua New Guinea				x	
Peru				x	
Philippines	x	x	x	x	
Russia				x	
Singapore	x	x	x	x	
Taiwan				x	
Thailand	x	x	x	x	
Vietnam	x	x			

