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# East Asia's Contribution to a Stable Currency System

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## 1. Introduction

Over the last two decades, the East Asian economies have achieved remarkable economic growth. One major engine of this success has been the expansion of foreign trade and direct investment (FDI). Since the early 1990s, emerging East Asia has also experienced increasing financial openness. Financial openness contributed to rapid economic growth by attracting both long-term and short-term capital and, together with trade and FDI openness, deepened market-driven economic interdependence in East Asia. But it added financial vulnerabilities, culminating in the form of a currency and financial crisis in 1997–98.

The crisis was a devastating experience for many East Asian economies because it exposed both the danger of financial globalization and the structural weaknesses of their economies. While it was a painful experience for many – because of the intervention by the International Monetary Fund (IMF) a sharp downturn of economic activity and social and political costs – it stimulated debates concerning a new international financial architecture, including the role of the IMF, desired pace and sequencing of capital account liberalization, and appropriate exchange rate regimes. One of the most noteworthy outcomes of the crisis was that the East Asian economies have embarked on regional monetary and financial cooperation. The crisis prompted the regional economies to realize the importance of managing financial globalization through closer cooperation among their financial authorities and to undertake various initiatives for the institutionalization of regional financial interdependence. For example, the ASEAN+3 members – comprising ASEAN, China, Japan and Korea – began to undertake the Chiang Mai Initiative, economic surveillance and policy dialogue, and the Asian bond market development initiative.

The objectives of this paper are fourfold. First, it shows that the regional economies are increasingly integrated with each other through trade, FDI and finance and are now highly interdependent in macroeconomic co-movements. However, there have not been formal institutions to support such interdependence. Second, it argues that the recent move toward monetary and financial cooperation has led to the emergence of a new regional financial architecture, and this move is a reflection of the region's intention to institutionalize rising economic interdependence among themselves as well as its defensive reaction to the crisis. Third, for increasingly interdependent East Asian economies, intra-regional exchange rate stability is important. The paper hence emphasizes the importance of further institution building that can lead to the creation of a regional mechanism for exchange rate stabilization. Finally, the paper argues that East Asia's monetary and financial regionalism can contribute to the stability of global finance, while remaining consistent with the global framework of the IMF.

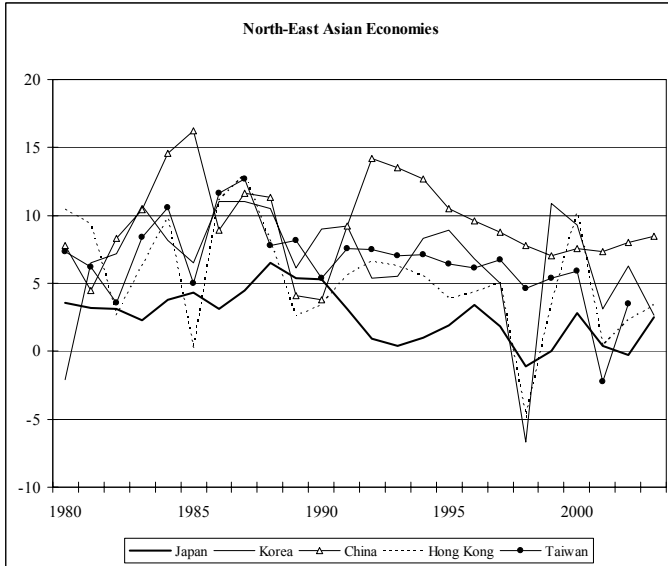
The organization of the paper is as follows. Section 2 overviews recent macroeconomic developments of major East Asian economies and identifies the extent of macroeconomic interdependence in the region. Section 3 summarizes the impact of the East Asian crisis on monetary and financial regionalism in East Asia. Section 4 reviews the current states of regional financial cooperation, explains the logic of such cooperation, and investigates the challenges for greater institutionalization of regional financial integration. Section 5 takes up the issue of exchange rate arrangements in East Asia. Section 6 provides concluding remarks.

## 2. Macroeconomic Developments and Interdependence in East Asia

### 2.1 Recent Macroeconomic Developments

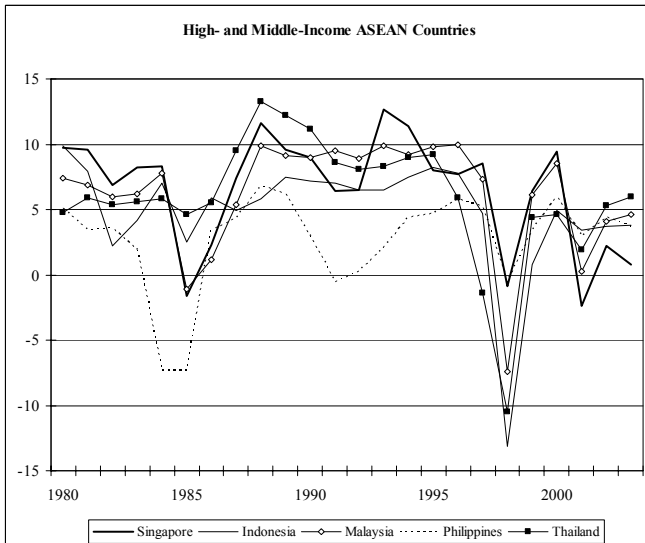
***Growth and inflation.*** Almost all East Asian economies exhibited strong growth performance in the 1980s and the first half of the 1990s. However, many of them experienced negative growth in 1998, not only in crisis-affected economies – Indonesia, Thailand, Malaysia, Korea and the Philippines – but also in countries like Japan, which had its own domestic financial crisis, Hong Kong and Singapore. Japanese economy grew at 3.8% in the 1980s with low inflation, but slipped into a long period of stagnation in the 1990s. For example, the average annual growth rate of real GDP was 1.1% in the post-bubble decade, 1992–2002. More recently, the economy experienced near-zero growth – at 0.1% in 1998–02 (chart 1). The economy was in a systemic banking sector crisis between the fall of 1997 and much of 1998. But the economy started to recover in the second quarter of 2002 and has recorded positive growth for eight consecutive quarters owing to the resolution of bank and corporate sector restructuring.

Chart 1a: Real GDP Growth Rates of the East Asian Economies, 1980–2003



Source: IMF, Bank of China for Taiwan.

Chart 1b: Real GDP Growth Rates of the East Asian Economies, 1980–2003

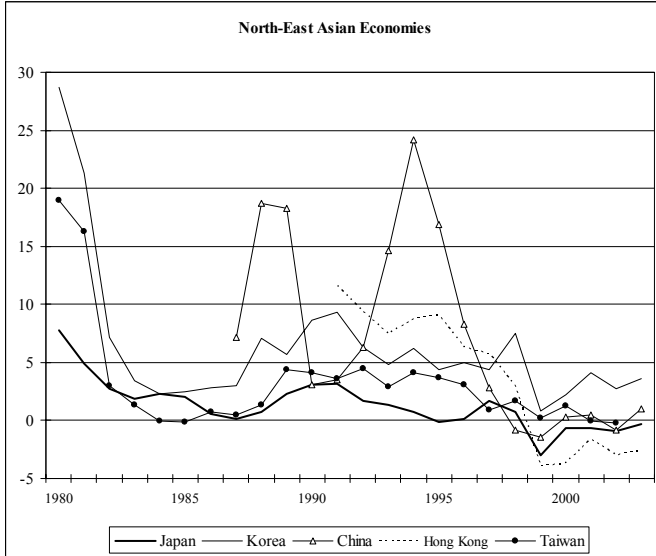


Source: IMF, Bank of China for Taiwan.

After three decades of remarkable economic growth, the five crisis-countries fell into a severe recession in 1998. The economic crisis in these countries has caused a serious setback in development performance, but at the same time has provided a window of opportunity to strengthen domestic policies and institutions through wide-ranging structural reforms. They started recover strongly in 1999 due to their restructuring efforts and structural reforms that focused on banking and corporate sectors. However, the post-crisis growth pattern indicates that the ASEAN countries are like to grow at rates lower than the pre-crisis pattern, which may ensure the sustainability of growth. China continues to perform well, though it shows a sign of overheating due to overinvestment in construction and certain materials sectors.

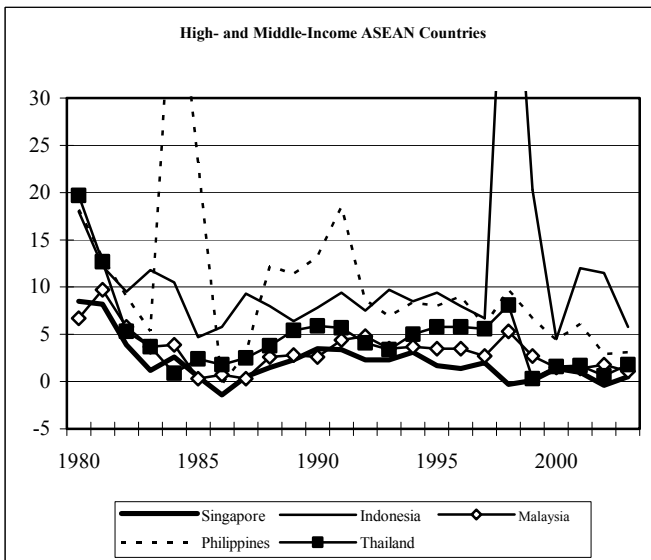
Japan's rate of inflation in the 1980s was low – 2.5% for the CPI – and it was even lower in the 1990s – 0.2% for the CPI in 1992–2003 (chart 2). Until recently, the price level fell faster, recording an average 0.7% decline in the CPI per year during 1999–2002. But the rate of deflation moderated in 2003. With economic recovery and quantitative monetary easing fully in place, price deflation is expected to halt within a year or two. China also experienced price deflation in 1998–99 and 2002, after having undergone a rapid inflation in the mid-1990s. There is a great deal of inflation rate convergence among the North-East Asian economies and some ASEAN countries – like Singapore, Thailand and Malaysia – in the last few years. Though Indonesia appears to have arrested the high inflation rates of the crisis period – 58% in 1998 and 20% in 1999 – it still faces relatively high inflation.

Chart 2a: CPI Inflation Rates of the East Asian Economies, 1980–2003



Source: IMF, Bank of China for Taiwan.

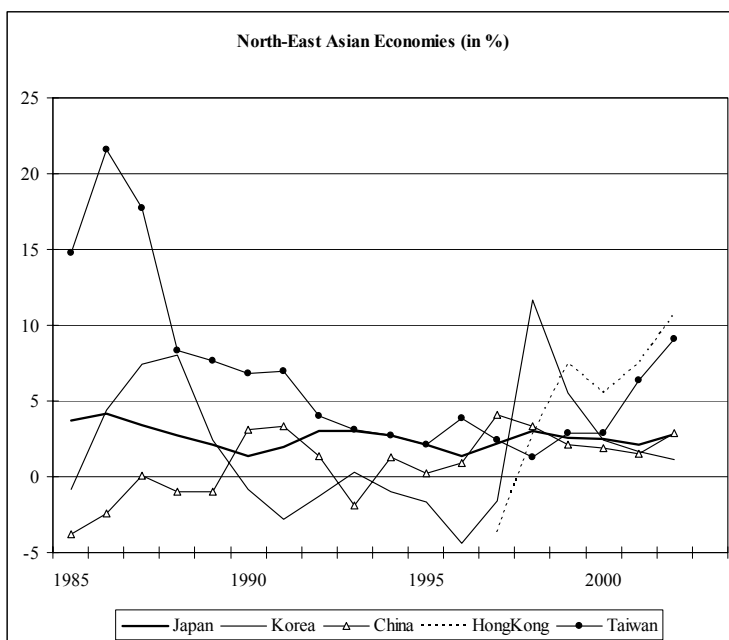
Chart 2b: CPI Inflation Rates of the East Asian Economies, 1980–2003



Source: IMF, Bank of China for Taiwan.

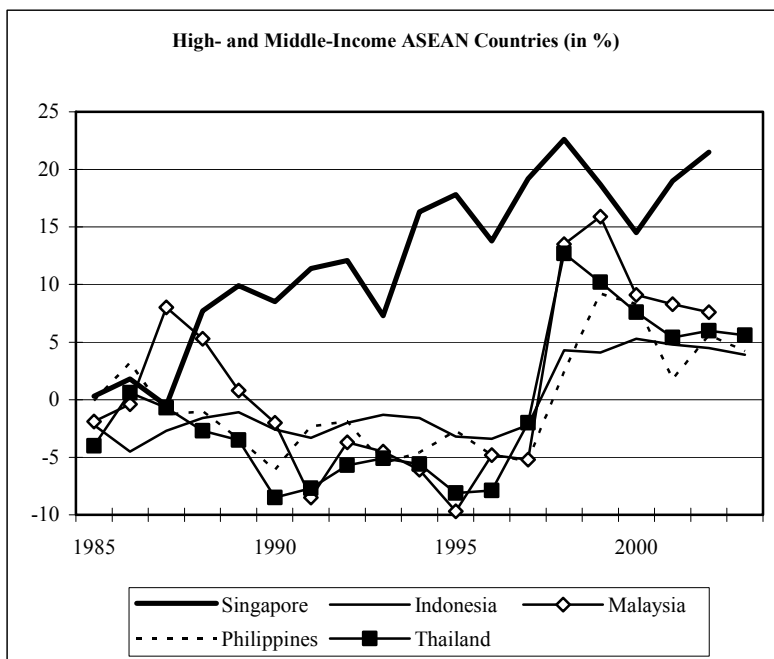
**Current accounts.** Emerging economies in East Asia recorded current account deficits during most of the 1990s until the currency crisis with the exception of Singapore and Taiwan (chart 3). Singapore registered ever-rising current account surpluses and Taiwan maintained steady levels of current account surpluses at 5% of GDP or less. Japan also maintained steady current account surpluses at about 2% to 3% of GDP. China's current account position has been sound, recording 2% to 3% of GDP. In contrast to these economies, Korea and the middle-income ASEAN countries had persistent current account deficits throughout most of the 1990s. When these countries were hit by the financial crisis in 1997–98, there were massive current account adjustments. Over the course of two years between 1996 and 1998, the current accounts of Thailand and Malaysia shifted from minus 5% or more (in absolute value) to 13%. A similar swing was observed in Korea, the Philippines and Indonesia, though the magnitude of adjustment was smaller. These adjustments were brought about mainly through domestic demand contraction.

*Chart 3a: Current Account/GDP Ratios of the East Asian Economies, 1985–2003*



Source: IMF, Bank of China for Taiwan.

Chart 3b: Current Account/GDP Ratios of the East Asian Economies, 1985–2003



Source: IMF, Bank of China for Taiwan.

Since after the crisis, all the economies in East Asia have been running current account surpluses. The underlying cause for this is that the level of domestic investment has come down significantly in comparison to the pre-crisis period. The presence of excessive capacity and the restructuring efforts have encouraged firms to invest less than before. The relatively low level of investment is expected to continue for some time to come, which can sustain trans-Pacific current account imbalances for the foreseeable future.

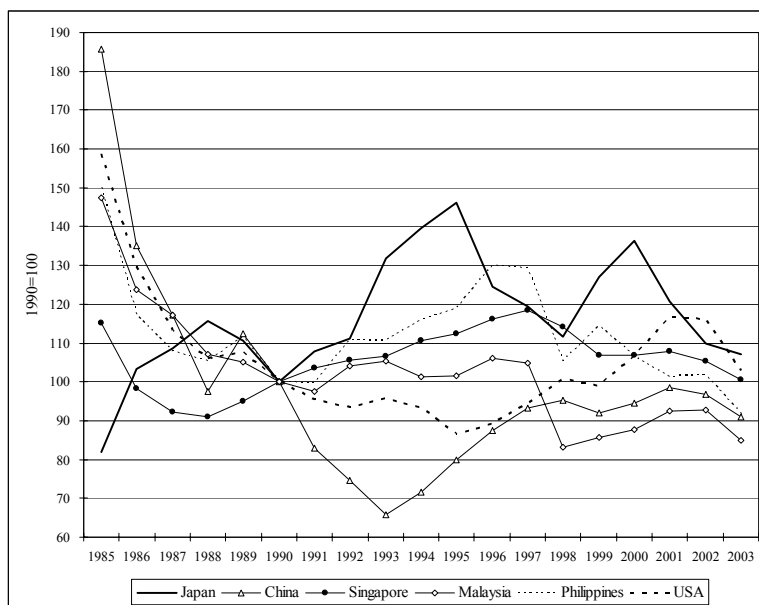
**Exchange rates.** Chart 4 plots real effective exchange rates for selective East Asian economies and the United States with the year 1990 as 100<sup>1</sup>. The chart indicates that following the Plaza Accord, the yen continued to appreciate as a trend until 1995, when the currency started to depreciate as a trend though there was another appreciation episode in 2000. This trend was associated with the U.S. dollar's trend depreciation between 1985 and 1995, and its trend appreciation between 1996 and 2001. The Chinese renminbi (RMB) underwent a spectacular depreciation between 1985 and 1993. Despite the currency devaluation in 1994 the

<sup>1</sup> Year 1990 is taken as the base year because of the absence of large current account imbalances for Japan and the United States.



real effective value of the RMB appreciated until 1998 largely because of domestic high inflation in the mid 1990s.

*Chart 4: Real Effective Exchange Rates of Selected East Asian Economies and the U.S.A.*



Source: IMF, *International Financial Statistics*.

The currencies of crisis-affected countries have depreciated as a result of the crisis. Currently the real effective exchange rate of the Malaysian ringgit is roughly 15% less than the 1996–97 level, while that of the Philippines peso has been down by 30%.

## 2.2 Capital Flows

Patterns of capital flows. Table 1 summarizes the recent patterns of net capital flows in East Asia. One can observe different patterns across Japan, China and crisis-affected economies.

*Table 1: Net Capital Flows in East Asia (in Billion USD)*

	1994	1995	1996	1997	1998	1999	2000	2001	2002
<b>Japan</b>									
Total capital flows, net	-85.1	-64.0	-28.0	-120.5	-114.8	-38.9	-78.3	-48.2	-63.4
Direct investment, net	-17.2	-22.5	-23.2	-22.1	-21.4	-10.0	-23.3	-32.3	-23.0
Portfolio investment, net	-27.4	-26.2	-33.8	32.1	-39.2	-27.5	-36.0	-46.3	-106.0
Other capital flows, net	-40.5	-17.3	29.0	-110.5	-54.2	-1.4	-22.0	30.4	65.6
<i>Memorandum items</i>									
Changes in reserves <sup>(a)</sup>	-25.3	-58.6	-35.1	-6.6	6.2	-76.3	-49.0	-40.5	-46.1
Current Account	130.3	111.0	65.8	96.8	118.8	114.6	119.7	87.8	112.5
<b>China</b>									
Total capital flows, net	32.6	38.7	40.0	21.0	-6.3	5.2	2.0	34.8	32.3
Direct investment, net	31.8	33.8	38.1	41.7	41.1	37.0	37.5	37.4	46.8
Portfolio investment, net	3.5	0.8	1.7	6.9	-3.7	-11.2	-4.0	-19.4	-10.3
Other capital flows, net	-2.7	4.0	0.2	-27.6	-43.7	-20.5	-31.5	16.9	-4.1
<i>Memorandum items</i>									
Changes in reserves <sup>(a)</sup>	-30.5	-22.5	-31.7	-35.9	-6.2	-8.7	-10.7	-47.4	-75.2
Current account	6.9	1.6	7.2	37.0	31.5	21.1	20.5	17.4	35.4
<b>Crisis-affected countries<sup>(b)</sup></b>									
Total capital flows, net	33.3	62.5	74.9	-13.1	-33.5	-12.5	-15.8	-12.1	-7.1
Direct investment, net	6.4	8.4	11.1	12.4	11.8	12.4	6.3	2.7	2.6
Portfolio investment, net	11.2	20.6	28.7	16.6	-3.4	13.1	7.2	6.2	0.0
Other capital flows, net	15.7	33.5	35.2	-42.1	-41.9	-38.0	-29.4	-21.0	-9.7
<i>Memorandum items</i>									
Changes in reserves <sup>(a)</sup>	-8.5	-14.9	-14.6	33.4	-46.4	-39.5	-26.0	-9.0	-23.2
Current account	-22.2	-39.1	-53.8	-26.4	69.8	62.5	44.3	30.0	33.0

Notes: (a) A minus sign indicates an increase in foreign exchange reserves.

(b) Indonesia, Korea, Malaysia, the Philippines, and Thailand.

(c) 24 economies in Asia and the Pacific, including Korea and Singapore (but excluding Taiwan).

Sources: IMF, *International Financial Statistics (CD-ROM)*.

First, Japan recorded persistently net capital outflows throughout the period, in response to its persistent current account surpluses. There net outflows in both foreign direct and portfolio investments throughout the period, except in 1997 when residents portfolio investment declined substantially. Second, China recorded persistently net capital inflows, particularly in the form of inward foreign direct investment, despite its persistent current account surpluses. The net result is persistent accumulation of foreign exchange reserves. Third, the five crisis-affected countries experienced a large swing of net capital flows from net inflows in the pre-crisis period to net outflows in the post-crisis period. These economies received foreign direct investment persistently, and what caused such a large swing was a reversal of “other capital flows” such as bank flows. After recording a net inflow of USD 70 billion in 1996, the private capital account of the East Asia-5 registered a

net outflow of USD 45 billion in 1997–98, causing a capital flow reversal of USD 113 billion over the course of two years. Though East Asia is expected to continue to experience net outflows of private capital, net inflows of foreign direct investments and portfolio equity investments are expected to return as economic growth is sustained.<sup>2</sup>

**Foreign exchange reserve accumulation.** What is noteworthy is the fact that in the post-crisis period, East Asia is accumulating foreign exchange reserves in a massive way. Table 2 shows that in the 1990s, the East Asian economies have accumulated by more than USD 1.5 trillion, close to 70% of the world total increase. As a result, East Asia now holds close to USD 1.8 trillion of foreign exchange reserves. Not only Japan and China, but also Taiwan and crisis-affected economies have been accumulating reserves. Part of the reason for this is the lesson from the financial crisis: A large war chest is needed to counter a liquidity crisis. For Japan, prevention of rapid yen appreciation has been one of the few policies left for the authority to fight against price deflation and get out of the prolonged stagnation.

*Table 2: Foreign Exchange Reserve Holdings of the East Asian Economies*

Economies/Regions	1990	1995	2000	2001	2002	2003 (FXR/IMP)	
<b>Japan</b>	78,501	183,250	354,902	395,155	461,186	663,289	1.73
<b>Korea</b>	14,793	32,678	96,130	102,753	121,345	155,284	0.87
<b>China</b>	29,586	75,377	168,278	215,605	291,128	408,151	0.99
<b>Hong Kong</b>	24,570	55,400	107,540	111,160	111,900	118,360	0.51
<b>Taiwan</b>	72,442	90,311	106,741	122,208	161,654	206,636	1.43
<b>Singapore</b>	27,748	68,695	80,132	75,375	82,021	95,746	0.75
<b>Indonesia</b>	7,459	13,708	28,502	27,246	30,969	34,962	0.84
<b>Malaysia</b>	9,754	23,774	29,523	30,474	34,222	44,515	0.54
<b>Philippines</b>	924	6,372	13,047	13,429	13,135	13,457	0.34
<b>Thailand</b>	13,305	35,982	32,016	32,355	38,046	41,077	0.54
<b>East Asia-10</b>	279,082	585,547	1,016,811	1,125,760	1,345,606	1,781,477	1.03
<b>Asia Total</b>	284,761	613,724	1,069,140	1,189,034	1,437,072	1,911,428	1.03
<b>World Total</b>	932,533	1,469,25	2,021,221	2,141,825	2,513,584	3,141,994	0.41

Note: (a) FXR/IMP is the ratio of foreign exchange reserves to imports for 2003, except for Taiwan (2002).

Source: International Monetary Fund, International Financial Statistics.

<sup>2</sup> Though brighter, most of these private flows have concentrated on one or two countries (Korea and China), leaving the rest of East Asia behind.

## 2.3 Deepening of Financial Integration and Macroeconomic Interdependence

One of the most important developments is the deepening of regional macroeconomic interdependence in East Asia.

**Trade and FDI integration.** East Asia has long enjoyed a market-driven expansion of trade and foreign direct investment (FDI) and the resulting *de facto* integration of the regional economies, within a multilateral liberalization framework under the GATT/World Trade Organization (WTO) and open regionalism through Asia-Pacific Economic Cooperation (APEC). A key feature is that the region has avoided discriminatory trade practices. The APEC process was successful in encouraging China – as well as Taiwan – to pursue trade and FDI liberalization outside of the WTO framework. Regional economic integration has been strengthened through an expansion of trade and FDI.

Table 3a: Intra-Regional Trade Share<sup>(a)</sup> (in %)

Regions	1980	1985	1990	1995	2000	2001
East Asia-10, including Japan <sup>(c)</sup>	33.6	36.2	41.6	50.1	50.1	50.8
Emerging East Asia-9 <sup>(d)</sup>	22.6	26.3	32.8	38.4	39.5	41.0
NIEs-4	8.5	9.5	12.3	14.0	13.6	13.2
ASEAN-4	3.5	4.9	3.9	5.2	7.9	7.9
NAFTA	--	36.6	36.8	41.9	46.5	46.3
European Union-15	52.6	53.8	64.9	64.1	62.1	61.9

Table 3b: Intra-Regional Trade Intensity Index<sup>(b)</sup>

Regions	1980	1985	1990	1995	2000	2001
East Asia-10, including Japan <sup>(c)</sup>	2.31	2.02	2.08	1.99	2.06	2.22
Emerging East Asia-9 <sup>(d)</sup>	3.02	2.66	2.66	2.19	2.23	2.44
NIEs-4	2.00	1.62	1.56	1.31	1.32	1.41
ASEAN-4	1.58	2.27	1.45	1.28	2.15	2.17
NAFTA	--	1.82	2.06	2.28	2.10	2.12
European Union-15	1.39	1.55	1.45	1.66	1.73	1.67

Note: (a) The intra-regional trade share is defined as:  $\{(X_{ij}/X_i) + (X_{ji}/X_j)\}/2$  where  $X_{ij}$  represents exports of region  $i$  to region  $j$ ,  $X_i$  represents total exports of region  $i$ , and  $X_j$  represents total exports of the world to region  $j$  (or total imports of region  $j$ ). In the table, the share is defined only for economies within the same region, so that  $i=j$ .

(b) The trade intensity index is defined as:  $(X_{ij}/X_{i..})/\{(X_i/X_{i..})(X_j/X_{j..})\}$  where  $X_{ij}$  represents exports of region  $i$  to region  $j$ ,  $X_i$  represents total exports of region  $i$ ,  $X_j$  represents total exports of the world to region  $j$  (or total imports of region  $j$ ), and  $X_{..}$  represents total world exports. In the table, the index is defined only for economies within the same region, so that  $i=j$ .

(c) East Asia-10 includes Emerging East Asia-9 and Japan.

(d) Emerging East Asia-9 includes NIE-4 (Korea, Taiwan, Hong Kong, and Singapore), ASEAN-4 (Malaysia, Thailand, Indonesia, and the Philippines) and China.

FDI flows to the emerging East Asian economies, driven largely by Japanese multinational corporations after a steep yen appreciation following the Plaza Accord of 1985, expanded rapidly in the second half of the 1980s. Multinational corporations began to fragment their production process into different sub-processes and locate each of them in countries according to the required factor proportions and technological capabilities. Such a strategy has generated a web of intra-regional, intra-industry trade in parts, components, semi-finished products, and finished products within East Asia, contributing to an efficient division of labor and deep economic integration. The resulting FDI-trade nexus is a distinct feature in the region. More recently, China's rise as an economic powerhouse has also been accompanied by its expansion of, and rising linkages through, trade – particularly intra-industry trade – with other East Asian economies, most of which are generated by multinationals.

The degree of regional integration through trade in East Asia has been rising fast over the last twenty years. Table 3a summarizes changes in the share of intra-regional trade for various groupings in the world over the period of 1980–2001. The table demonstrates that the share of intra-regional trade for East Asia in its total trade has risen from 23% in 1980 to 41% (excluding Japan) or from 34% to 51% over the same period (including Japan). This trend means that more than 50% of East Asia's recent trade is with itself. The share of intra-regional trade within East Asia is still lower than that in the European Union (62%), but exceeds that of the North American Free Trade Area (NAFTA) (46%) in 2001. Table 3b summarizes changes in the intra-regional trade intensity indices for the same groupings over the same period.<sup>3</sup> The table demonstrates that within East Asia, whether including Japan or not, the trade intensity indices are larger than those for NAFTA or EU-15. This observation confirms that the degree of regional integration through trade in East Asia is quite large and comparable to levels seen in North America or Europe.

***Financial and macroeconomic interdependence.*** Market-driven financial integration has also been underway as a result of the increased deregulation of the financial system, opening of financial services to foreign institutions, and liberalization of the capital account in the East Asian economies. Commercial banks have extended cross-border loans to banks and corporations throughout the region, and such banks have contributed to a closely connected banking sector within East Asia. The Opening of securities markets, particularly equity markets, has attracted foreign portfolio capital inflows. Active commercial bank loans and portfolio flows have linked the economies in the region financially, creating positive correlations of asset price movements within the region. At least part of

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<sup>3</sup> The advantage of trade intensity indices over trade shares is that the former control for a region's relative size in world trade and, hence, present a better measure of closeness of the economies within a region.

the contagion of currency crises in the region in 1997 was a reflection of such financial linkages.

Macroeconomic interdependence within the region has recently become stronger, as evidenced by a simultaneous contraction of economic activity throughout East Asia in 1998 and a simultaneous expansion in 1999–2000. Though the regional economies may have been affected by some common global factors such as U.S. economic cycles and information technology (IT) stock price movements, many of the recent, synchronized economic activities in the region can be attributed to strong macroeconomic interdependence.

Cross-country correlation analyses of major macroeconomic variables – such as real GDP growth rates, real private consumption, real fixed investment, and price inflation rates – over the last twenty years indicate that macroeconomic activities of the East Asian economies are generally highly correlated with each other, with the exception of China. Table 4 is a summary of factor loadings obtained from the first principal components of East Asian economies' variables.<sup>4</sup> The table indicates that Japan's real activity variables are more highly correlated with those of emerging East Asia than are U.S. activity variables. On the other hand, inflation rates of the United States and Japan are equally highly correlated with those of emerging East Asia. This suggests that the degree of emerging East Asia's real economic interdependence with Japan is greater than with the United States, while the degrees of its nominal interdependence with Japan and the United States are equally strong.<sup>5</sup>

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<sup>4</sup> See Kawai and Motonishi (2004) for details.

<sup>5</sup> Earlier studies by Eichengreen and Bayoumi (1999) found that, in terms of supply shocks, some East Asian nations were just as closely connected with one another as European countries were. In terms of demand shocks, ASEAN countries were also well connected. More specifically, they found that two groups of economies in the region – one for Japan, Korea and Taiwan, and another for Hong Kong, Indonesia, Malaysia, Singapore and possibly Thailand – are natural groups of countries that are closely integrated. See also Bayoumi and Eichengreen (1994) and Bayoumi et al. (2000). Goto and Kawai (2001) also found rising macroeconomic interdependence in East Asia in the 1990s, in terms of movements of real output and shocks to real investment.

*Table 4: Factor Loadings of the First Principal Components for East Asian Variables (1980–2002)*

Countries	Real GDP	Real Consumption.	Real Investment	Real Monet. Supply	Real Stock Price	GDP Deflator	CPI
U.S.A.	-0.11	-0.34	-0.41	-0.46	0.37	0.32	0.69
EU-15	0.04	0.17	-0.14	0.17	0.33	0.35	0.75
Australia	-0.21	-0.16	-0.21	-0.01	0.32	0.63	0.62
New Zealand	0.27	-0.04	0.20	-0.06	0.11	0.63	0.61
India	0.08	0.03	-0.04	-0.03	0.10	0.39	-0.02
Japan	0.58	0.39	0.41	0.15	0.72	0.26	0.56
Korea	0.85	0.78	0.67	0.01	0.89	0.26	0.42
China	0.05	-0.16	-0.27	-0.09	–	0.13	-0.01
Taiwan	0.44	0.26	0.27	0.07	0.71	0.08	0.49
Hong Kong	0.71	0.63	0.58	0.15	–	0.37	0.37
Singapore	0.72	0.75	0.60	0.29	–	0.20	0.60
Malaysia	0.87	0.87	0.95	-0.13	–	-0.38	0.27
Thailand	0.92	0.93	0.88	-0.02	–	0.10	0.28
Philippines	0.39	0.32	0.55	0.20	0.91	-0.12	0.39
Indonesia	0.90	0.63	0.89	-0.16	–	-0.25	-0.55

*Notes:* (a) The variables are defined in terms of log first differences.

(b) Principal components are obtained for each variable for the East Asian economies, including Japan, Korea, China, Taiwan, Hong Kong, Singapore, Malaysia, Thailand, Philippines, and Indonesia. But real GDP and GDP deflators include Brunei, Vietnam, Laos, and Myanmar; real consumption, real investment and CPI include Myanmar; and real money supply includes Laos and Myanmar.

(c) The figures are correlation coefficients between the first principal component for East Asia and the original, log first-differenced series of individual countries.

*Source:* Kawai and Motonishi (2004).

### 3. Impact of the Asian Financial Crisis

#### 3.1 Causes and Lessons of the 1997–98 Crisis

There is now a consensus that the East Asian financial crisis of 1997–98 was triggered by massive reversals of capital flows and contagion. Though deeper, structural causes of crises vary, there was a common factor across countries: Imprudently managed domestic financial institutions over-extended loans to corporations that in turn invested the borrowed funds in unproductive projects. Furthermore, an initially benign-looking currency crisis evolved into a full-blown economic crisis due to the mutually reinforcing impacts of currency depreciation, financial sector deterioration, and corporate sector distress. Essentially the crisis

was the result of interactions between the forces of financial globalization and domestic structural weaknesses (World Bank 1998, 2000).<sup>6</sup>

**Forces of financial globalization.** The crisis-affected countries had liberalized international capital flows and had been integrated with the international capital markets before the crisis. Many emerging East Asian economies clearly benefited from the liberalization and globalization of financial markets. From the mid-1980s to the mid-1990s, large inflows of capital, particularly long-term capital such as FDI, helped finance the region's rapid economic development and growth. In the several years leading up to the crisis, however, countries had received large inflows of capital in the financial and corporate sectors, particularly in the form of unhedged short-term capital due to relatively high domestic interest rates with *de facto* U.S. dollar-pegged exchange rates. As a result, the ratios of short-term external debt to foreign exchange reserves had risen to levels greater than one. The potential risk due to the "double mismatch" problem had become serious.<sup>7</sup> When market perceptions changed rapidly in 1997, these economies saw sudden outflows of capital and consequent large downward pressures on the currency. The currency crisis was triggered by the sudden reversal of capital flows, which is why the crisis is often called the "capital account crisis."<sup>8</sup>

Regional contagion of the crisis was spectacular. The Thai baht crisis spread to Malaysia, Indonesia, the Philippines and eventually South Korea within a few months, resulting in acute crises. At a later stage, Hong Kong was also affected, where the authorities managed successfully to contain its impact using unconventional policy measures.

**Domestic structural weaknesses.** The affected countries also had domestic structural weaknesses. Some foreign capital was intermediated by domestic financial institutions that over-extended loans to domestic sectors, including non-tradable real estate and construction; some found its way directly into domestic corporations. Over-investment in real estate and other assets contributed to the generation of asset bubbles, which left financial institutions with serious problems of non-performing loans when the bubble ultimately burst. In this way, financial institutions that intermediated foreign capital to domestic sectors were exposed to currency and maturity mismatches. Domestic corporations that were highly

<sup>6</sup> IMF (1998a, 1998b) and Summers (2000) emphasized the importance of domestic structural weaknesses, while Radelet and Sachs (1998, 2000) and Furman and Stiglitz (1998) emphasized the importance of financial globalization.

<sup>7</sup> When an emerging market economy borrows from abroad short-term, foreign-currency denominated funds, it faces both maturity and currency mismatches – hence the "double mismatch" – because the borrowed funds tend to be invested at home with long-term maturities in domestic currency. As a result, the economy is exposed to both maturity risk (unanticipated rejection of roll-over of short-term liabilities) and currency risk (unanticipated currency depreciation).

<sup>8</sup> See Yoshitomi and Shirai (2000); Kawai, Newfarmer and Schmukler (2003).



leveraged were also exposed to interest and exchange rate shocks. Inadequate regulatory and supervisory frameworks had left banks and corporations with imprudent financial management and, more generally, weak corporate governance. Steep exchange rate depreciation, high interest rates and tight budgets, induced by the eruption of a currency crisis in 1997, aggravated financial and corporate sector distress and led to a sharp contraction of overall economic activity in 1998.

***Major lessons of the crisis.*** There are at least two major lessons from the crisis episode. First, policymakers in both developed and emerging market economies need to pay greater attention to managing the forces of financial globalization, particularly in a world of rapid short-term capital flows. Until the crisis, implications of the scope and magnitude of short-term capital flows were not fully understood by international investors, policymakers of the lending and borrowing countries, or international financial institutions. More fundamentally, there was a lack of concern over the volatile nature of capital flows and the need for monitoring and managing rapid capital flows. Management of financial globalization requires global frameworks that reduce capital flow volatility and enhance borrower countries' capacity to mitigate undesirable impacts of globalization, including macroeconomic and exchange rate policymaking.

Second, emerging market economies need to strengthen domestic economic systems, in particular their financial and corporate sectors. This task requires effective regulatory and supervisory frameworks for enhancing management and governance of financial institutions and corporations. Specifically, economies need to strengthen banks' asset-liability management capacity so as to avoid over-extension of loans and excessive currency and maturity mismatches; improve corporations' financial management capacity so as to maintain their sound financial discipline; and develop sound capital markets so as to provide alternative financing sources for corporations. If the domestic economic system becomes robust and resilient, a crisis could be prevented, or its impact on the economy would be mitigated even if a crisis occurs.

While not immediate causes of the crisis, declining productivity and relatively weak public sector governance are often identified as the fundamental weakness of pre-crisis East Asia. In fact, with high productivity and better governance, the negative impact of the currency crisis on the financial and real sectors of the economy would have been limited. There is indeed a case for reviving productivity and strengthening governance, because the rewards on them are high.

### 3.2 International Financial Architecture

Reflecting on these lessons, there was an increasing recognition that putting effective mechanisms in place to manage the forces of globalization and to strengthen the underpinnings of national economic systems was key to crisis prevention, management and resolution. Global efforts to reform the functioning of

international financial markets and national efforts to strengthen country economic underpinnings have been made under the title of the “international financial architecture.”<sup>9</sup>

***Global efforts to reform the international financial system.*** At the global level, various reforms for crisis prevention, management and resolution have been proposed and some have been put in place. First, the IMF has introduced new lending facilities to meet the greater financial needs of member countries at times of crises or as preventive measures. The Supplemental Reserve Facility was established in December 1997 and has been used in South Korea, Brazil, Argentina and Turkey. It provides large financial assistance, without access limit, to members facing exceptional balance of payments difficulties resulting from a sudden and disruptive loss of market confidence. The Contingent Credit Line (CCL) was created in 1999 as a precautionary line of defense to help protect member countries in the event of an exceptional balance of payments need arising from the spread of financial crises, provided that the countries have pursued strong policies.

Second, the IMF has improved the transparency of its operations and policy deliberations. It has also decided to streamline its conditionality, particularly structural conditionality, in order to enhance ownership and effectiveness of its program.<sup>10</sup> The new approach is to formulate IMF programs on the presumption that structural conditionality shall be limited to a core set of essential features that are macro-relevant and in the IMF’s core area of responsibility,<sup>11</sup> with a broader approach requiring justification based upon the specific country situation. Hence, IMF structural conditionality is expected to cover only those reforms that are relevant for a program’s macroeconomic objectives. If those structural reforms that

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<sup>9</sup> See Eichengreen (1999) and Kenen (2001) for discussions of reform of the international financial architecture.

<sup>10</sup> When the IMF intervened in crisis-affected countries in East Asia to contain the crisis, many viewed at last part of the IMF policies as not only inappropriate in some key areas but also exacerbating the severity of the crisis. A case in point is the initial Indonesian program (November, 1997), where the IMF insisted on the closure of 16 commercial banks without adequate protection of bank deposits, thereby exacerbating systemic bank runs (Sachs, 1998). In the January 1998 program, the IMF added a long list of structural reforms, specifying in minute detail such things as clove monopoly and selling plywood (Feldstein, 1998), which were largely irrelevant to the currency crisis. Misguided or excessively broad and detailed structural conditions undermined the country’s “ownership” of the program and damaged its successful implementation. The IMF programs should have focused on the immediate need to stem capital outflows and restore currency market stability.

<sup>11</sup> The IMF’s core areas of responsibility include: macroeconomic stabilization; monetary, fiscal and exchange rate policy, including the underlying institutional arrangements and closely related structural measures; and financial sector issues including the functioning of both domestic and international financial markets.

are critical for the achievement of the program's macroeconomic objectives are outside the IMF's core areas of responsibility, the IMF should seek assistance from relevant international organizations – such as the World Bank and regional development banks – to provide inputs in designing and monitoring the reform measures.

Third, private sector involvement (PSI) has been an important focus of reform. Given that the volume of private resources far exceeds that of official resources, private sector involvement is vital for crisis prevention and resolution. If official intervention were to bail out private investors without making them pay for their bad investment decisions, this would create a serious moral hazard problem. While private financial institutions decided to share the burden in helping crisis-affected countries in several cases, such as South Korea and Brazil, a definitive framework has yet to be developed. This is particularly the case for the restructuring of emerging economy bonds because of the large number and dispersion of bondholders involved.<sup>12</sup>

***National efforts to strengthen domestic underpinnings.*** At the national level, developing economies have made efforts to step up “self-help” mechanisms for crisis prevention and management, such as the accumulation of adequate foreign exchange reserves, appropriately sequenced capital account liberalization, allowance of prudential regulations of capital inflows as financial safeguards, and upgrading of regulatory capacity to monitor capital flows and to impose official standstills if necessary. They also have made efforts to strengthen policy and institutional frameworks with an emphasis on macroeconomic management capacity and financial sector reform. Attention has focused particularly on the need to improve regulatory and supervisory frameworks in the financial system, to strengthen corporate governance, and to establish effective domestic insolvency procedures to deal with non-viable banks and corporations. The expectation is that

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<sup>12</sup> The international community has begun to explore possible mechanisms for the debt restructuring of international sovereign bonds in the recognition that, at the time of a liquidity crisis, holders of sovereign bonds, along with other creditors, would need to contribute to the resolution of such crises. Two methods have been recommended: a contractual approach and a statutory approach. A contractual approach considers collective action clauses in sovereign bond contracts as a useful device for orderly resolution of crises; their explicit inclusion in bond documentation would provide a degree of predictability to the restructuring process. A statutory approach (Krueger, 2002) attempts to create the legal basis – through universal treaty rather than through a set of national laws in a limited number of jurisdictions – for establishing adequate incentives for debtors and creditors to agree upon a prompt, orderly and predictable restructuring of unsustainable debt. Similar approaches might be needed for private debt instruments as well, because of the surge in private-to-private capital flows – as was the case in East Asia.

with stronger domestic underpinnings in these areas, crises are less likely to occur and, even if they do, their impact on the economy tends to be limited.

One of the principal instruments for strengthening domestic policies and institutions is international best practice information in macroeconomic policymaking, financial sector regulation and supervision, and capital market infrastructure. Reports on the Observance of Standards and Codes (ROSCs), supported by various international organizations and agencies and adopted by the IMF in September 1999, cover 12 issues in three main areas. The macroeconomic policy area includes monetary and financial policy transparency, fiscal transparency, and special data dissemination standards in addition to the general data dissemination system. The financial sector regulation and supervision area includes banking supervision, securities regulation, insurance supervision, payments systems, and anti-money-laundering. The capital market infrastructure area includes corporate governance, accounting standards, auditing standards, and insolvency and creditor rights.<sup>13</sup> These processes are undoubtedly useful, but take time to be effectively implemented. And even if ROSCs are fully in place, crises may still occur.

### 3.3 Emergence of a New Regional Financial Architecture

While the international community and emerging market economies have focused on global and national policy reforms, a well-designed regional framework can also contribute to the stability of the international financial system for three reasons.<sup>14</sup> First, the global efforts are still inadequate and national efforts take more time to become effective. Though the global initiative has delivered certain results, they are far less than satisfactory – particularly in the areas of the IMF contingent credit line (CCL) and private sector involvement (PSI).<sup>15</sup> Second, as regional integration is deepening through trade, FDI and financial flows – as will be explained in more detail below – an effective framework for regional financial cooperation is essential to manage integration. Third, as economic contagion tends to begin with a

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<sup>13</sup> The most prominent among these is the Financial Sector Assessment Program (FSAP) supported jointly by the IMF and the World Bank. The FSAP is intended to strengthen the monitoring and assessment of financial systems in view of the fact that financial sector weaknesses have played an important role in damaging a country's overall economic health.

<sup>14</sup> See also Bird and Rajan (2002).

<sup>15</sup> The CCL was virtually abolished in November 2003 because no country had been willing to use the facility due to the fear (a) that a CCL agreement with the IMF may send a wrong signal to the market that the country in question is in need of IMF financing, and (b) that possible cancellation of a CCL status can send a signal that the country's macroeconomic and financial conditions have deteriorated considerably, thereby triggering a crisis.

Table 5: Summary of Policy Lessons from the Asian Financial Crisis

Objective	National Measures	Global Measures	Regional Measures
	<i>Improve mechanisms for crisis prevention, management and resolution at the national level.</i>	<i>Improve mechanisms for crisis prevention, management and resolution at the global level.</i>	<i>Improve mechanisms for crisis prevention, management and resolution at the regional level.</i>
<b>Preventing or reducing the risk of crises</b>	<i>Avoid large current account deficits financed through short-term, unhedged capital inflows.</i>		
	<ul style="list-style-type: none"> <li>• Secure adequate foreign exchange reserves</li> <li>• Maintain sound fiscal and monetary policy</li> <li>• Adopt a viable exchange rate regime</li> <li>• Establish orderly capital account liberalization</li> </ul>	<ul style="list-style-type: none"> <li>• Improve transparency and disclosure by IFIs</li> <li>• Strengthen IMF surveillance and policy advice</li> <li>• Remove regulatory biases to short-term and excessive international lending</li> </ul>	<ul style="list-style-type: none"> <li>• Strengthen regional policy dialogue and surveillance</li> <li>• Maintain intra-regional exchange rate stability</li> <li>• Develop a regional early warning system</li> <li>• Reduce “double mismatch”</li> </ul>
	<i>Aggressively regulate and supervise financial systems to ensure that financial institutions manage risks prudently.</i>		
	<ul style="list-style-type: none"> <li>• Strengthen regulatory and supervisory frameworks over financial institutions</li> <li>• Allow prudential regulation as financial safeguards and cushions</li> <li>• Improve information transparency</li> <li>• Introduce limited deposit insurance</li> </ul>	<ul style="list-style-type: none"> <li>• Tighten regulations over financial institutions that lend to highly leveraged institutions</li> <li>• Support implementation of international standards and codes</li> </ul>	<ul style="list-style-type: none"> <li>• Establish regional initiatives to improve regional regulatory and supervisory frameworks</li> </ul>
<i>Erect an incentive structure for sound corporate finance to avoid high leverage and excessive reliance on foreign borrowing.</i>			
<ul style="list-style-type: none"> <li>• Establish good corporate governance</li> <li>• Introduce greater competition to product, factor and financial markets</li> <li>• Develop capital market-based finance</li> <li>• Better information disclosure</li> </ul>	<ul style="list-style-type: none"> <li>• Identify best-practice corporate governance and its implementation tailored to specific country conditions</li> </ul>	<ul style="list-style-type: none"> <li>• Develop regional capital markets for mobilization of regional savings</li> <li>• Undertake regional initiatives for better corporate governance</li> </ul>	

<b>Managing crises</b>	<b><i>Mobilize timely external liquidity of sufficient magnitude.</i></b>		
	<ul style="list-style-type: none"> <li>• Restore market confidence through coherent policy packages</li> <li>• Reduce moral hazard problems</li> </ul>	<ul style="list-style-type: none"> <li>• Strengthen IMF liquidity support, including CCL</li> </ul>	<ul style="list-style-type: none"> <li>• Establish a regional liquidity support facility to contain crises and contagion</li> </ul>
	<b><i>Adopt appropriate macro and structural policies to reflect the specific conditions and reality of the economy.</i></b>		
	<ul style="list-style-type: none"> <li>• Adopt appropriate monetary and fiscal policy contingent on the specific conditions of the economy</li> </ul>	<ul style="list-style-type: none"> <li>• Streamline IMF conditionality on macroeconomic and structural policies</li> </ul>	<ul style="list-style-type: none"> <li>• Strengthen regional capacity to formulate needed adjustment policies</li> </ul>
	<b><i>Bail-in private international investors.</i></b>		
<ul style="list-style-type: none"> <li>• Impose official stand-stills</li> <li>• In extreme cases, allow involuntary private sector involvement (PSI)</li> </ul>	<ul style="list-style-type: none"> <li>• Establish international rules of the game through private sector involvement (PSI)</li> </ul>	<ul style="list-style-type: none"> <li>• Involve international creditors from outside the region</li> </ul>	
<b>Resolving the systemic consequences of crises</b>	<b><i>Move swiftly to establish resolution mechanisms for impaired assets and liabilities of banks and corporations.</i></b>		
	<ul style="list-style-type: none"> <li>• Establish procedures for bank exits, recapitalization and rehabilitation</li> <li>• Establish legal procedures and formal frameworks for corporate insolvencies and workouts</li> </ul>	<ul style="list-style-type: none"> <li>• Establish international frameworks for PSI in external debt resolution</li> <li>• Strengthen capacity for official budgetary support</li> </ul>	<ul style="list-style-type: none"> <li>• Finance regional programs to help accelerate bank and corporate restructuring through regional MDBs and bilateral donors</li> </ul>
	<b><i>Cushion the effects of crises on low-income groups through social policies to ameliorate the inevitable social tensions.</i></b>		
	<ul style="list-style-type: none"> <li>• Strengthen social safety nets and to mitigate social consequences of crises</li> </ul>	<ul style="list-style-type: none"> <li>• Finance the activity through the World Bank and other international organizations</li> </ul>	<ul style="list-style-type: none"> <li>• Finance regional programs to help mitigate social impact through regional assistance</li> </ul>

Source: Revision of table 8 in Kawai (2002a) and table 1 in Kawai, Newfarmer, and Schmukler (2003).

geographic focus, a regional framework for financial cooperation to address crisis prevention, management and resolution is a logical way to proceed.<sup>16</sup> From these perspectives, the regional economies have jointly embarked on initiatives to strengthen the regional financial architecture (see table 5).

<sup>16</sup> See Kawai, Newfarmer and Schmukler (2003).

***Crisis prevention.*** Regional information sharing, policy dialogue, economic surveillance and monitoring are instrumental to crisis prevention at the regional level. The process should focus on both macroeconomic and structural issues, such as monetary and exchange rate policies (including domestic and foreign assets and liabilities of the central banks), fiscal positions and debt management, capital flows and external debts, financial system conditions, and corporate sector developments. Developing a reliable early warning system is useful in detecting macroeconomic, external and financial sector vulnerabilities. With effective surveillance mechanisms in place, each economy in the region is expected to be under peer pressure to pursue disciplined macroeconomic and structural policies that are conducive to stable external accounts and currencies. In addition, the regional economies need to ensure intra-regional exchange rate stability as well as reconstruct the banking sector and develop capital – particularly bond – markets to mobilize regional savings for regional investment, thereby reducing the “double mismatch” problem.

***Crisis management.*** Once an economy is hit by a currency crisis, appropriate policy responses and timely provision of international liquidity are needed to prevent the economy from slipping into a serious economic contraction of systemic proportions. The pace of liquidity disbursement at the global level may be slow in times of crisis or contagion, because of cumbersome processes and disagreements over policy conditionality. To avoid long delays and to augment globally available resources, a regional financing facility can help close the gap. A financing facility that can rapidly mobilize a large amount of liquidity to head off a speculative attack is an obvious benefit if the attack is the result of irrational herd behavior. For such a financing facility to be effective, its provision must be accompanied by appropriate adjustment policy measures and, hence, the region must develop analytical capacity to formulate appropriate conditionality. This approach, however, must be consistent with, and complementary to, the global framework governed by the IMF, in order to exploit the synergy between the two, ensure policy consistency, and involve private creditors from outside the region.

***Crisis resolution.*** To resolve a crisis, international efforts are needed to ensure that a crisis-affected economy returns to a sustainable growth path. In the face of a systemic crisis in the banking, corporate and social sectors, fiscal resource mobilization is essential for the quick resolution of the crisis. Fiscal resources that are needed to recapitalize weak banks, facilitate corporate debt restructuring and strengthen social safety nets may be limited by the lack of fiscal headroom or constraints to external financing on market terms. Fiscal resources are also needed for social sector protection.<sup>17</sup>

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<sup>17</sup> A good example is the New Miyazawa Initiative of 1998, which supported the fiscal needs of crisis-affected countries in East Asia for restructuring and social spending.

## 4. Recent Initiatives for Regional Financial Cooperation

### 4.1 Early Attempts

**ASEAN.** In August 1977 the original five ASEAN central banks and monetary authorities – Indonesia, Malaysia, the Philippines, Singapore, and Thailand – signed the first memorandum of understanding on the ASA with the total facility of USD 100 million. In 1978, the total was increased to USD 200 million, with each member contributing USD 40 million. The objective was to provide immediate, short-term swap facilities to any member facing a temporary liquidity shortage or a balance of payments problem.

The ASEAN established a Surveillance Process in October 1998, with the objective of strengthening policy dialogue and policymaking capacity in monetary, fiscal and financial areas through information exchanges, peer reviews and recommendations for action at the regional and national levels. For this purpose, the ASEAN Surveillance Process has two components: a monitoring mechanism that allows early detection of any irregular movement in key economic and financial variables; and a peer review mechanism that induces appropriate policy responses to issues emerging from the monitoring exercise. The process is the first concrete attempt by a group of developing countries to establish mechanisms for regional policy dialogue.

**Asian Monetary Fund (AMF) proposal.** Following the success of the August 1997 meeting in Tokyo to agree on a much-needed financial support package for crisis-affected Thailand, Japan, with support from South Korea and the ASEAN countries that participated in the Thai package, proposed in September to establish an Asian Monetary Fund (AMF) to supplement IMF resources for crisis prevention and resolution. The United States and the IMF opposed this proposition on grounds of moral hazard and duplication. They argued that an East Asian country hit by a currency crisis would bypass the tough conditionality of the IMF and receive easy money from the AMF, thereby creating potential for moral hazard; and that an AMF would be redundant in the presence of an effective global crisis manager, the IMF. Without China's support, the idea had to be aborted.

In November 1997 the East Asian economies, together with the United States, Canada, Australia and New Zealand, agreed to establish the so-called "Manila Framework Group." Many, but not all, of the MFG member economies participated in the Thai financial package.<sup>18</sup> Its objective was to develop a concerted framework for Asia-Pacific financial cooperation in order to restore and enhance the prospects for financial stability in the region. Its initiatives included the establishment of a new mechanism for regional surveillance to complement IMF surveillance;

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<sup>18</sup> These economies were called the "Friends of Thailand" – including Japan, Australia, China, Hong Kong, Malaysia, Singapore, Brunei, Indonesia and South Korea.



enhancement of economic and technical cooperation, particularly in strengthening domestic financial systems and regulatory capacities; strengthening the IMF's capacity to respond to financial crises; and development of a cooperative financing arrangement for the region to complement IMF resources.

***New Miyazawa Initiative.*** Another example, which was highly successful, was the so-called "New Miyazawa Initiative" which contributed to the resolution of the Asian financial crisis. In October 1998, Japan pledged USD 30 billion to support the economic recovery of the crisis-affected countries. Half of the pledged amount was dedicated to short-term financial needs during the process of implementing economic restructuring and reform, while the rest was earmarked for medium- and long-term reforms. Part of short-term financial support was dedicated to currency swap arrangements with Korea (USD 5.0 billion) and Malaysia (USD 2.5 billion). The initiative provided major assistance for restructuring corporate debt, reforming financial sectors, strengthening social safety nets, generating employment, and addressing the credit crunch. A commitment to provide a large amount of resources helped stabilize the regional markets and economies, thereby facilitating the recovery process.

***Asia Growth and Recovery Initiative.*** With the announcement of the New Miyazawa Initiative, the United States decided to take its own initiatives within a multilateral framework in order to assist the economic recovery of the crisis-affected countries. In November 1998, the U.S.A. and Japan jointly announced the Asia Growth and Recovery Initiative (AGRI), which was a multilateral effort to stimulate economic growth in Asia. With support from the World Bank and the Asian Development Bank (ADB), AGRI was intended to initially target the mobilization of USD 5 billion in bilateral and multilateral support to further corporate restructuring and restore market access to private capital, including for small and medium firms. Although it did not generate additional resources for East Asia's restructuring process nor yield visible results, it strengthened/established bond guarantee functions of the World Bank and the ADB.

## 4.2 Current States of Regional Financial Cooperation

Regional financial cooperation in East Asia has focused on three major initiatives:<sup>19</sup>

- Creation of a regional liquidity support arrangement through the Chiang Mai Initiative
- Establishment of surveillance mechanisms particularly through the ASEAN+3 Economic Review and Policy Dialogue process
- Development of Asian bond markets

<sup>19</sup> See Kawai (2002a) and Kuroda and Kawai (2002).

**Liquidity support facility.** The hallmark financing arrangement in East Asia is the Chiang Mai Initiative, which is designed to manage regional currency attacks, contagion and crises.<sup>20</sup> The Asian financial crisis highlighted the importance of establishing an effective financing facility so that the economies in the region can respond more effectively to the needs of their peers in a world of increased financial globalization. The finance ministers of ASEAN+3 who met in Chiang Mai in May 2000 agreed to establish a regional network of swap arrangements (BSAs) for its members, thus embarking on the so-called the Chiang Mai Initiative (CMI). The CMI comprised of two elements – the expansion of the existing ASEAN Swap Arrangement (ASA) in both amounts and membership and the creation of a new network of bilateral swap arrangements among ASEAN+3 members.<sup>21</sup> By the end of December 2003, sixteen BSAs had been concluded in line with the main principles, reaching a total of USD 36.5 billion excluding the commitments made under the New Miyazawa Initiative, and USD 44 billion including these commitments (see table 6).<sup>22</sup> This signified the conclusion of all conceivable BSAs at the time, and no further BSA negotiation is currently under way.

Members requesting liquidity support under the CMI can immediately obtain short-term financial assistance for the first 10% of the BSA facility. The remaining 90% is provided to the requesting member under an IMF program. Linking CMI liquidity support to IMF conditionality is designed to address the concern that balance of payments difficulties may be due to fundamental problems, rather than a mere panic and herd behavior by investors, and that the potential moral hazard problem could be non-negligible in the absence of an effective adjustment program.<sup>23</sup>

<sup>20</sup> There is another arrangement under the Manila Framework Group, that is, the MFG Cooperative Financing Arrangement, but this is intended to be only a second line of defence and is considered as ineffective.

<sup>21</sup> ASEAN Swap Arrangement (ASA), established among the original ASEAN-5 in August 1977 with a total facility of USD 100 million, expanded to a total of USD 200 million in 1978. Under the CMI, ASA membership was extended to include all ASEAN members, and its facility was further augmented to USD 1 billion.

<sup>22</sup> This is the sum of all BSAs, including the amount that Japan committed under the New Miyazawa Initiative – a total of USD 7.5 billion, or USD 5 billion with South Korea and USD 2.5 billion with Malaysia – , except that two-way BSAs are doubled for calculation purposes. Excluding the amount committed under the New Miyazawa Initiative, the total sum is USD 36.5 billion.

<sup>23</sup> Although up to 10% of the BSA drawings under the CMI can be provided for a limited period without an IMF program, subsequent additional disbursements have to be linked to an IMF program and, therefore, its conditionality.

*Table 6: Progress on BSAs under the Chiang Mai Initiative (as of End-December 2003)*

<b>BSAs</b>	<b>Currencies</b>	<b>Conclusion Dates</b>	<b>Size</b>
Japan-South Korea	USD-Won	July 4, 2001	USD 7.0 billion <sup>(a)</sup> (1-way)
Japan-Thailand	USD-Baht	July 30, 2001	USD 3.0 billion (1-way)
Japan-Philippines	USD-Peso	Aug. 27, 2001	USD 3.0 billion (1-way)
Japan-Malaysia	USD-Ringgit	Oct. 5, 2001	USD 3.5 billion <sup>(b)</sup> (1-way)
China-Thailand	USD-Baht	Dec. 6, 2001	USD 2.0 billion (1-way)
Japan-China	Yen-Renminbi	Mar. 28, 2002	USD 3.0 billion <sup>(c)</sup> (2-way)
China-South Korea	Renminbi-Won	June 24, 2002	USD 2.0 billion <sup>(c)</sup> (2-way)
South Korea-Thailand	USD-Won or USD-Baht	June 25, 2002	USD 1.0 billion (2-way)
South Korea-Malaysia	USD-Won or USD-Ringgit	July 26, 2002	USD 1.0 billion (2-way)
South Korea-Philippines	USD-Won or USD-Peso	Aug. 9, 2002	USD 1.0 billion (2-way)
China-Malaysia	USD-Ringgit	Oct. 9, 2002	USD 1.5 billion (1-way)
Japan-Indonesia	USD-Rupiah	Feb. 17, 2003	USD 3.0 billion (1-way)
China-Philippines	Renminbi-Peso	Aug. 29, 2003	USD 1.0 billion <sup>(c)</sup> (1-way)
Japan-Singapore	USD-Singapore dollar	Nov. 10, 2003	USD 1.0 billion (1-way)
South Korea-Indonesia	USD-Won or USD-Rupiah	Dec. 24, 2003	USD 1.0 billion (1-way)
China-Indonesia	USD-Rupiah	Dec. 30, 2003	USD 1.0 billion (2-way)

*Notes:* (a) The amount includes USD 5.0 billion committed (on June 17, 1999) under the New Miyazawa Initiative.

(b) The amount includes USD 2.5 billion committed (on August 18, 1999) under the New Miyazawa Initiative.

(c) The amounts are U.S. dollar equivalents.

**Surveillance mechanism.** Establishing mechanisms for frequent exchanges of views and consultations among regional-country financial officials is an obvious first step for meaningful financial cooperation. Information sharing and policy dialogue are essential to this process. Economic surveillance involves not only analyses of macroeconomic and financial conditions and policies of member countries but also identification of vulnerable aspects of the economy and finance as well as appropriate policy responses. This process requires frank and candid exchanges of views among other member economies, and will hopefully induce good policies through peer pressure.

Table 7: Regional Forums for Finance Ministries and Central Banks<sup>(a)</sup>

Groups Number Established	Finance Ministries and/or Central Banks					Central Banks		
	ASEAN (10) 1967/8	ASEAN+3 (13) 1999/4	MFG <sup>(b)</sup> (14) 1997/11	APEC (21) 1994/3	ASEM <sup>(c)</sup> (25) 1997/9	SEANZA (20) 1956	SEACEN (11) 1966/2	EMEAP (11) 1991/2
Japan		○	○	○	○	○		○
China		○	○	○	○	○		○
Korea		○	○	○	○	○	○	○
Hong Kong			○	○		○		○
Taiwan				○			○	
Singapore	○	○	○	○	○	○	○	○
Brunei	○	○	○	○	○			
Cambodia	○	○						
Indonesia	○	○	○	○	○	○	○	○
Laos	○	○						
Malaysia	○	○	○	○	○	○	○	○
Myanmar	○	○					○	
Philippines	○	○	○	○	○	○	○	○
Thailand	○	○	○	○	○	○	○	○
Vietnam	○	○		○	○			
Mongolia						○	○	
Macao						○		
Papa New Guinea				○		○		
Australia, New Zealand			○	○		○		○
Nepal, Sri Lanka						○	○	
Bangladesh, India, Pakistan Iran						○		
USA, Canada			○	○				
Chile, Mexico, Peru				○				
Russia				○				
EU-15					○			

Notes: (a) APEC = Asia-Pacific Economic Cooperation; ASEAN = Association of Southeast Asian Nations; EMEAP = Executives Meeting of East Asia-Pacific Central Banks; MFG = Manila Framework Group; SEACEN = South East Asian Central Banks; SEANZA = South East Asia, New Zealand, Australia.

(b) MFG includes the International Monetary Fund, the World Bank, the Asian Development Bank and the Bank for International Settlements. (c) ASEM includes the European Commission.

Source: Kuroda and Kawai (2002).

There are several mechanisms for regional information sharing, policy dialogue, and economic surveillance (see table 7). The most important mechanism of all is the ASEAN+3 Process. Other major mechanisms include the ASEAN Surveillance

Process, the Manila Framework Group (MFG), EMEAP (Executives Meeting of East Asia-Pacific Central Banks), and trans-regional forums such as APEC and Asia-Europe Meeting (ASEM).

The purpose of the ASEAN+3 Economic Review and Policy Dialogue (ERPD) process, introduced in May 2000 by ASEAN+3 finance ministers, is to strengthen policy dialogue, coordination and collaboration on the financial, monetary and fiscal issues of common interest. Its major focus is on issues related to macroeconomic risk management, monitoring of regional capital flows, strengthening of the banking and financial systems, reform of the international financial architecture, and enhancement of self-help and support mechanisms in East Asia. Steps have been taken for cooperation in monitoring short-term capital flows and developing a regional early warning system to assess regional financial vulnerabilities, with a view to preventing financial crises in the future. However, this process has not yet been as effective as it should be. There is no independent, professional organization that prepares comprehensive papers for analyses, assessments and issues to support the process, except that the ADB provides some data on developing member economies.

**Asian bond market development.** Initiatives have been taken to develop Asian bond markets in view of the need to channel a vast pool of savings to long-term investment for growth and development within the region. This effort reflects the recognition that the financial system in East Asia has been too dependent on bank financing domestically and on foreign-currency financing externally and, hence, needs to be strengthened through the development of local capital – in particular bond – markets. By developing local-currency denominated bond markets, it is also hoped that the “double mismatch” problem of international capital flows – currency and maturity mismatches – will be reduced.

The EMEAP-led central bank process has established an Asian Bond Fund (ABF) to facilitate bond issuance. Its idea is to help expand the bond market through the purchase of bonds using foreign exchange reserves. So far, only U.S. dollar-denominated bonds have been purchased. To address the issue of the “double mismatch,” Asian currency-denominated bonds must be purchased. The ASEAN+3 Finance Minister process has undertaken the Asian Bond Market Initiative (ABMI) to develop local currency denominated bonds. One of its aims is to establish a bond guarantee agency in the region and to promote bonds denominated in a basket of Asian currencies.

### 4.3 Logic of Regional Financial Cooperation in East Asia

There are several motivations behind the recent move to closer regional cooperation in the macroeconomic and financial area. While the most fundamental driving force is the deepening of economic interdependence in the region, some of

them are defensive responses to the Asian financial crisis and others are more proactive:

- Deepening economic interdependence in East Asia through trade, investment and financial flows
- Hard lessons of the Asian financial crisis in 1997–98 resulted in the need to establish regional “self-help” mechanisms for effective prevention, management and resolution of regional financial crises as well as dissatisfaction with the existing global financial system governed by the IMF
- Regional financial stability as a basis for global financial stability
- Willingness to increase the Asian voice in global financial management

The most fundamental factor is the deepening of economic interdependence in East Asia. The region has seen not only real but also financial integration through market-driven trade, foreign direct investment, and financial flows. As a result, macroeconomic interdependence has become stronger. The deepening of macroeconomic and financial interdependence suggests a need for concerted efforts to internalize externalities and spillover effects, because macroeconomic/financial developments and policies of one country can easily affect other countries’ performance and developments. It makes sense for such interdependent regional economies to institutionalize *de facto* integration through the establishment of regional cooperative frameworks, such as trade and investment agreements and macroeconomic and financial cooperation mechanisms. Given that one country’s turbulence, shocks and crises could be easily transmitted to other economies within the same region, it is critical to establish financial safety nets. Cooperation among such economies would be easier because they are small in number – so the transactions cost for cooperation is small – and tend to face similar shocks and similar policy challenges.

As has been discussed earlier, the Asian financial crisis taught an important lesson, that is, there is a clear need for effective prevention, management and resolution of financial crises and contagion. The global initiative for the new international financial architecture has been less than satisfactory and the national efforts to strengthen national economic fundamentals take time to bear fruit. In addition, the East Asian economies have been dissatisfied with the way the IMF handled the crisis, particularly in Thailand and Indonesia. Hence, the general sentiment in East Asia has been that the regional economies must establish their own “self-help” mechanisms through systematic macroeconomic and financial cooperation for prevention and management of possible crises in the future. Such cooperation should include information exchange, policy dialogue, a regional liquidity support arrangement, and joint policymaking in certain critical areas – such as exchange rate policy coordination.

There are some proactive responses to the crisis. Since regional financial stability is a basis for global financial stability, effective regional financial cooperation is an obvious benefit not only for the regional economies but also for the global community. In this sense the East Asian regional financial architecture is consistent with, and even strengthens, the IMF's global role. At the same time, given the perceived imbalance and unfairness of the current distribution of IMF quotas, which is unrealistically skewed against East Asia, the regional economies have the desire to increase their voice in global financial management. Indeed they believe they can better achieve a greater voice by joining forces together.

#### 4.4 Challenges for Further Institutionalization of Financial Integration

***Next steps for closer financial cooperation.*** The ASEAN+3 countries have agreed to review the CMI starting in May 2004, including the amount, modality and IMF linkages. The total amount covered by the CMI may be increased, and its bilateral nature may be modified to become multilateral. If the degree of IMF linkages is to be reduced, effective surveillance would have to be put firmly in place. In addition to this review, the member countries may wish to consider further steps going beyond the CMI, which is essentially a short-term liquidity support mechanism. A medium-term financing arrangement that would be extended for two to three years – or longer – may need to be developed.

Another issue concerns surveillance and policy dialogue, that is, how to make the surveillance process effective, like the G-7 process and OECD processes (EPC, EDRC, WP3). Currently MFG serves better in terms of the quality of surveillance and frankness of policy dialogue than other processes in East Asia. A challenge is how to create a good surveillance culture within ASEAN+3. On Asian-currency denominated bond market development, incentives must be created to develop such markets on the part of both investors and issuers. In particular corporate governance for potential issuers needs to be enhanced, and well-designed national and regional market infrastructure needs to be developed – including disclosure requirements, accounting and auditing standards, rating agencies, bond default treatment, and depository and clearance systems.

So far no concrete attempt has been made to initiate exchange rate policy coordination. This presents a serious problem because intra-regional exchange rate stability is a public good for regional growth and economic stability.

***Impediments to closer financial regionalism.*** There are four possible impediments to further financial cooperation at the regional level:

- East Asia's global orientation in finance – financial integration with the OECD countries and dependence on the U.S. dollar
- Concern about possible conflict with the global financial system governed by the IMF

- Diversity and heterogeneity in financial structure and capital account liberalization
- Hesitation of further coordination due to the fear of loss of national sovereignty

Some may argue that East Asia is more closely integrated financially with the OECD countries than with regional economies and that the region can gain more from further integration with the global market than with the regional economies in terms of risk sharing for smooth consumption. The East Asian economies are also still highly dependent on the U.S. dollar – for exchange rate stabilization, trade invoicing, external asset holding, foreign exchange reserve holding, and external liabilities. This dependence means that it will not be easy to reduce the role of the U.S. dollar and increase the use of Asian currencies for international transactions. The region's global orientation in finance leads to the view that the global financial system governed by the IMF could be more important than an alternative, regional financial system.

Diversity and heterogeneity within East Asia – in the areas of financial market development, scope and extent of exchange and capital controls, and institutional capacities – can constitute a serious impediment to regional financial cooperation. Diversity and heterogeneity imply that low-income countries – where financial infrastructure is insufficiently developed – will be slow in capital account liberalization and financial opening and, hence, it will be difficult to integrate themselves financially with the rest of East Asia at a fast pace. Given such diversity and heterogeneity, economies in the region have different policy objectives and priorities and desire to maintain national sovereignty over economic policies – fiscal, monetary, exchange rate, financial and structural. This preference for national policy independence would make it difficult to conduct serious economic and policy surveillance and to apply strong peer pressure for better policies. Closer economic policy coordination would be more difficult.

**Assessments of the impediments.** Some of these impediments are real, but they are not insurmountable either. It is true that financial integration tends to be global and the role of the U.S. dollar is still predominant in East Asia. However, the regional economies have found the need to manage financial globalization through various measures, including the strengthening of a regional financial architecture, which complements the global financial arrangement governed by the IMF. The region's governments have also found the cost of excessive reliance on the U.S. dollar very high so that they have embarked on measures to increase the use of regional currencies – such as the Asian bond market development.

Heterogeneity and diversity are not the ultimate impediment to regional financial cooperation, but political will is more crucial. For closer economic cooperation, a multi-track approach of strengthening cooperation among countries that have enough convergence would make sense. At the same time, the ASEAN+3



member economies, with assistance from Japan, Korea and multilateral development banks, must make every effort to guide low-income countries to upgrade their institutions and market infrastructure. With regard to the issue of economic sovereignty, the regional economies are increasingly realizing that their economies are highly interdependent so that closer economic policy cooperation is inevitable.<sup>24</sup>

## 5. Exchange Rate Arrangement in East Asia

### 5.1 Current Exchange Rate Arrangements

In this section, I identify the exchange rate arrangements that have prevailed in East Asia, particularly in crisis-affected countries and the neighboring emerging economies, before, during and after the 1997–98 currency crisis. As usual, it is useful first to take a look at the official exchange rate arrangements as published by the IMF. Table 8 summarizes changes in exchange rate arrangements in not only the crisis-affected countries – Indonesia, Korea, Malaysia, the Philippines, and Thailand – but also Japan, China, Hong Kong, Taiwan and other ASEAN countries.<sup>25</sup>

**“Official” exchange rate arrangements.** One can make several observations from the table. First, emerging East Asia has exhibited a variety of “official” exchange rate arrangements, ranging from a currency board system (Hong Kong and Brunei) to independently floating (Philippines). In between these two polar cases, there are conventional fixed pegs to a single currency (China and post-crisis Malaysia), a currency basket (Singapore and pre-crisis Thailand), and managed floating (pre-crisis Korea, Indonesia and Singapore). Second, three (Korea, Indonesia, and Thailand) out of the five crisis-affected countries saw a change in their official exchange rate arrangements in the direction of greater exchange rate flexibility, while Malaysia moved in the opposite direction after a brief period of rate flexibility. Hong Kong, Singapore, Taiwan and the Philippines have maintained largely identical exchange rate arrangements in the pre- and post-crisis periods.

It is now well understood that “official” exchange rate arrangements may not describe the accurate state and evolution of the exchange rate policies in emerging East Asia, particularly those in crisis-affected countries. Official arrangements do not indicate the precise degree of exchange rate fixity/flexibility, or the target anchor currency for exchange rate stabilization. It is thus important to examine the

<sup>24</sup> Stubbs (2002) takes the view that the ASEAN+3 will rise as a major regional and international player.

<sup>25</sup> For details see Kawai (2002).

actual behavior of the exchange rates, and empirically identify changes in such arrangements over time.

*Table 8: Official Exchange Rate Arrangements in the East Asian Economies*

Country	Article VIII (Date Accepted)	Pre-crisis and Mid-crisis Exchange Rate Arrangements (Year/Month of Change)	Post-crisis Exchange Rate Arrangement (December 2001)
<b>Japan</b>	01/04/1964	Independently floating (1982/07-present)	Independently floating
<b>Korea</b>	01/11/1988	Managed floating (1982/06-1997/11); Independently floating (1997/11-present)	Independently floating
<b>China, P.R.</b>	01/12/1996	Managed floating (1986/10-1998/09); Conventional fixed peg to the U.S. dollar (1999/01-present)	Conventional fixed peg to the U.S. dollar
<b>Hong Kong</b>	15/02/1961	Currency board arrangement with a peg to the U.S. dollar (1983/10-present)	Currency board arrangement with a peg to the U.S. dollar
<b>Taiwan (a)</b>	--	Managed floating (1989/04-present)	Managed floating
<b>Indonesia</b>	07/05/1988	Managed floating (1983/12-1997/07); Independently floating (1997/08-2001/09)	Managed floating with no pre-announced path for exchange rate (2001/09-present)
<b>Malaysia</b>	11/11/1968	Peg to other currency composite (1975/09- 1993/06); Managed floating (1993/06- 1998/09); Peg to the U.S. dollar (1998/09- present)	Conventional fixed peg to the U.S. dollar
<b>Philippines</b>	08/09/1995	Independently floating (1984/11-present)	Independently floating
<b>Singapore</b>	09/11/1968	Managed floating (1987/12-present)	Managed floating with no pre-announced path for exchange rate
<b>Thailand</b>	04/05/1990	Peg to other currency composite (1984/11- 1997/06); Independently floating (1997/07- 2001/09)	Managed floating with no pre-announced path for exchange rate (2001/09-present)
<b>Brunei</b>	10/10/1995	Currency board arrangement with a peg to the Singapore dollar (1996/03-present)	Currency board arrangement with a peg to the Singapore dollar
<b>Cambodia</b>	01/01/2002	Managed floating (1993/06-present))	Managed floating with no pre-announced path for exchange rate
<b>Lao, P.D.R.</b>	Article XIV	Managed floating (1989/03-1995/09); Independently floating (1995/09-1997/06); Managed floating (1997/06-present)	Managed floating with no pre-announced path for exchange rate
<b>Myanmar</b>	Article XIV	Peg to the SDR (1975/02-2001/12)	Managed floating with no pre-announced path for exchange rate (2001/12-present)
<b>Vietnam</b>	Article XIV	Peg to the U.S. dollar (1989/03-1990/03); Managed floating (1993/03-1998/09)	Pegged exchange rate within horizontal bands (1999/01-2001/12); Managed floating with no pre-announced path for exchange rate (2001/12-present)

*Notes: (a) Information on Taiwan is based on Fisher (2001).*

*Source: International Monetary Fund, International Financial Statistics, various issues.*

*Adapted from: Kawai, Masahiro, "Exchange Rate Arrangements in East Asia: Lessons from the 1997-98 Currency Crisis". Monetary and Economic Studies (Special Edition, Bank of Japan), Volume 20, No. S-1, December 2002, p. 181.*

**“Observed” exchange rate arrangements.** In examining actual data on exchange rate movements, I hypothesize that the roles of the U.S. dollar, the Japanese yen and the euro as anchors for exchange rate stabilization have changed since the outbreak of the East Asian currency crisis. A Frankel-Wei (1994, 1995) type of regression of daily movements in each economy’s exchange rate on the movements of three major international currencies facilitates a convenient comparison of the roles of the G-3 currencies across East Asian emerging economies as well as over time. The regression equation is:

$$\Delta e_t^j = \alpha + \beta_1 \Delta e_t^{\text{USD}} + \beta_2 \Delta e_t^{\text{JY}} + \beta_3 \Delta e_t^{\text{EURO}} + u_t.$$

Here,  $\Delta e_t^j$  is the daily rate of change in the exchange rate of currency  $j$  in day  $t$ ;  $\alpha$  is a constant term;  $\beta_k$  ( $k = 1, 2, \dots$ ) is the coefficient on the daily change in the exchange rate of currency  $k$ ; and  $u_t$  is the residual term. The superscripts, USD, JY and EURO respectively refer to the U.S. dollar, the Japanese yen, and the euro – or the ECU before the introduction of the euro in January 1999. All exchange rates are expressed vis-à-vis the Swiss franc. The estimated coefficients are interpreted as the weights assigned to the corresponding currencies in exchange rate policies. The estimated standard error of regression residuals can be interpreted as a measure of exchange rate volatility. The regression results are summarized in table 9.

The table indicates that in the pre-crisis period, the U.S. dollar coefficients for many economies were close to unity with a reasonably large adjusted- $R^2$ , suggesting a high degree of exchange rate stability vis-à-vis the U.S. dollar. In the mid-crisis period (July 1997 to December 1998), many affected economies in East Asia experienced noticeable declines in U.S. dollar weights and in the  $R^2$ -adjusted. The results for the post-crisis period (January 1999 to June 2002) indicate a greater diversity in exchange rate arrangements than in the pre-crisis period. A few countries have returned to the pre-crisis pattern of U.S. dollar-based exchange rate arrangement, while others have departed from the pre-crisis *de facto* U.S. dollar-peg to greater exchange rate flexibility.

What is noteworthy for the post-crisis arrangement is that a *de facto* currency basket system is adopted in Korea and Thailand (and Taiwan to some extent), in that both the U.S. dollar and the yen assume significant weights in the equation. The main reason for the *de facto* currency basket arrangement is that this would ensure better macroeconomic performance for Korea and Thailand. To the extent that fluctuations of the yen/U.S. dollar exchange rate affect these economies’ activity, it would be in their interest to stabilize their exchange rates to a basket of the yen and the U.S. dollar – and possibly the euro – because this would reduce macroeconomic fluctuations.

*Table 9: Regression Results of Daily Exchange Rate Movements for Major Emerging East Asian Economies: Pre-crisis, Mid-crisis, and Post-crisis Periods*

**(a) Hong Kong Dollar**

Period	Const	USD	JY	EURO	R2-adj	D.W.	Std-res	No. obs.
90/01-91/06	-0.014	0.993 **	-0.001	0.007	0.9973	1.566	0.000425	389
91/07-92/12	-0.008	0.998 **	-0.011	0.006	0.9956	2.579	0.000597	394
93/01-94/06	-0.004	0.995 **	0.000	0.003	0.9975	2.147	0.000358	390
94/07-95/12	0.002	0.997 **	0.000	0.002	0.9994	2.018	0.000204	391
96/01-97/06	0.004	0.997 **	0.009 **	-0.007	0.9977	2.598	0.000277	391
97/07-98/12	0.000	1.001 **	0.006 *	0.000	0.9938	2.773	0.000528	393
99/01-00/06	0.016 **	0.993 **	0.001	0.003	0.9998	2.116	0.000087	390
00/07-01/12	0.000	1.004 **	0.000	-0.002	0.9999	2.054	0.000061	392
02/01-02/06	0.002	0.998 **	0.000	0.001	0.9999	2.124	0.000024	124

**(b) Korean Won**

Period	Const	USD	JY	EURO	R2-adj	D.W.	Std-res	No. obs.
90/01-91/06	0.172	1.004 **	-0.013	-0.011	0.9336	1.968	0.002149	389
91/07-92/12	0.210	1.026 **	-0.016	-0.006	0.8098	2.005	0.004458	394
93/01-94/06	0.045	1.014 **	-0.021 *	-0.002	0.9720	2.255	0.001208	390
94/07-95/12	-0.127	0.983 **	0.081 **	-0.045 *	0.9329	2.008	0.002205	391
96/01-97/06	0.354 **	0.960 **	0.065 **	0.020	0.8583	1.804	0.002378	391
97/07-98/12	0.758	1.149 **	0.039	0.084	0.0921	1.607	0.024301	393
99/01-00/06	-0.172	1.044 **	0.063 *	-0.036	0.7220	1.645	0.004023	390
00/07-01/12	0.256	0.982 **	0.284 **	-0.056	0.7550	2.107	0.004476	392
02/01-02/06	-0.510 *	0.654 *	0.175 **	0.101	0.7504	2.092	0.002783	124

**(c) Singapore Dollar**

Period	Const	USD	JY	EURO	R2-adj	D.W.	Std-res	No. obs.
90/01-91/06	-0.212	0.739 **	0.065 **	0.199 **	0.9167	2.309	0.002188	389
91/07-92/12	-0.140	0.758 **	0.077 **	0.185 **	0.9482	2.309	0.001857	394
93/01-94/06	-0.160	0.865 **	0.049 **	0.098 **	0.9199	2.131	0.001960	390
94/07-95/12	-0.189	0.789 **	0.098 **	0.117 **	0.9383	2.052	0.001915	391
96/01-97/06	-0.019	0.798 **	0.096 **	0.144 **	0.9294	2.167	0.001503	391
97/07-98/12	0.381	0.635 **	0.342 **	0.190 *	0.4851	2.181	0.006911	393
99/01-00/06	0.103	1.219 **	0.123 **	-0.194 **	0.8505	1.925	0.002547	390
00/07-01/12	0.035	0.948 **	0.197 **	-0.089 *	0.8975	1.942	0.002236	392
02/01-02/06	-0.170	0.610 **	0.223 **	0.064	0.8731	2.019	0.000346	124

**(d) New Taiwan Dollar**

Period	Const	USD	JY	EURO	R2-adj	D.W.	Std-res	No. obs.
90/01-91/06	0.040	0.840 **	-0.017	0.240 **	0.4605	2.849	0.008475	389
91/07-92/12	-0.154	0.967 **	0.033	-0.003	0.6336	2.913	0.006803	394
93/01-94/06	0.193	1.012 **	0.055	-0.019	0.6664	2.875	0.005199	390
94/07-95/12	0.023	0.948 **	0.060 *	0.028	0.8956	2.022	0.002807	391
96/01-97/06	0.024	0.946 **	0.036	-0.001	0.8264	2.734	0.002573	391
97/07-98/12	0.382	0.867 **	0.090 **	0.068	0.5698	1.702	0.005472	393
99/01-00/06	-0.131	0.999 **	-0.007	-0.012	0.8920	2.289	0.002128	390
00/07-01/12	0.322 **	1.019 **	0.000	-0.017	0.9030	1.799	0.002248	392
02/01-02/06	-0.200 #	0.990 **	0.109 **	-0.053	0.9320	2.475	0.001307	124

**(e) Indonesian Rupiah**

Period	Const	USD	JY	EURO	R2-adj	D.W.	Std-res	No. obs.
90/01-91/06	0.227	0.962 **	0.029	0.030	0.9094	2.084	0.002555	389
91/07-92/12	0.145 **	0.997 **	-0.006	0.016	0.9903	2.292	0.000900	394
93/01-94/06	0.131 *	0.995 **	0.010	-0.002	0.9739	2.044	0.001161	390
94/07-95/12	0.153 *	0.994 **	-0.015	0.011	0.9710	2.004	0.001438	391
96/01-97/06	0.156 *	1.009 **	0.001	0.002	0.9372	2.165	0.001528	391
97/07-98/12	2.982	0.512	0.692 *	-0.067	0.0167	1.961	0.053151	393
99/01-00/06	0.290	2.147 *	0.270 **	-0.643	0.1880	1.689	0.015509	390
00/07-01/12	0.354	1.423 **	0.140	-0.138	0.3370	1.719	0.012363	392
02/01-02/06	-1.410 *	0.289	0.012	0.300	0.2870	1.752	0.006755	124

**(f) Malaysian Ringgit**

Period	Const	USD	JY	EURO	R2-adj	D.W.	Std-res	No. obs.
90/01-91/06	0.072	0.892 **	0.027 **	0.096 **	0.9739	2.207	0.001279	389
91/07-92/12	-0.138	0.874 **	0.025	0.090 **	0.9487	2.006	0.001944	394
93/01-94/06	0.004	0.906 **	0.001	0.020	0.8170	1.507	0.003072	390
94/07-95/12	-0.062	0.869 **	0.059 **	0.084 **	0.9532	1.970	0.001738	391
96/01-97/06	-0.049	0.885 **	0.034 *	0.086 **	0.9226	2.018	0.001611	391
97/07-98/12	1.032	0.883 **	0.300 **	-0.035	0.1862	1.742	0.014911	393
99/01-00/06	0.000	1.043 **	0.000	-0.019 **	0.9980	2.943	0.000265	390
00/07-01/12	0.000	1.000 **	0.000	0.000 #	1.0000	3.040	0.000000	392
02/01-02/06	0.000	1.000 **	0.000	0.000	1.0000	2.919	0.000000	124

**(g) Philippines Peso**

Period	Const	USD	JY	EURO	R2-adj	D.W.	Std-res	No. obs.
90/01-91/06	0.571	1.054 **	0.043	-0.048	0.6891	2.011	0.005762	389
91/07-92/12	-0.363	1.048 **	-0.110	0.101	0.6700	1.991	0.006458	394
93/01-94/06	0.309	0.973 **	-0.006	-0.026	0.6154	2.013	0.005375	390
94/07-95/12	-0.045	0.986 **	0.062	-0.059	0.7805	2.221	0.004306	391
96/01-97/06	0.020	1.004 **	-0.005	-0.002	0.9936	2.202	0.000469	391
97/07-98/12	0.998	0.876 **	0.285 **	-0.022	0.1924	1.716	0.014420	393
99/01-00/06	0.268	1.410 **	0.085 **	-0.243 *	0.7190	1.968	0.006247	390
00/07-01/12	0.406	0.779 *	0.116	0.093	0.4460	2.067	0.008187	392
02/01-02/06	-0.150	0.628 *	0.031	0.150	0.7460	1.947	0.002744	124

**(h) Thai Baht**

Period	Const	USD	JY	EURO	R2-adj	D.W.	Std-res	No. obs.
90/01-91/06	0.014	0.961 **	0.031 *	0.023	0.9543	2.034	0.001766	389
91/07-92/12	-0.017	0.957 **	0.019	0.043 **	0.9782	2.007	0.001334	394
93/01-94/06	-0.037	0.972 **	0.012	0.006	0.9778	2.040	0.001049	390
94/07-95/12	0.017	0.877 **	0.069 **	0.049 **	0.9882	2.410	0.000848	391
96/01-97/06	-0.053	0.823 **	0.178 **	0.154	0.4746	1.978	0.006179	391
97/07-98/12	1.014	0.608 **	0.311 **	0.099	0.1046	1.877	0.017221	393
99/01-00/06	0.178	1.432 **	0.130 **	-0.297 *	0.6291	1.933	0.008783	390
00/07-01/12	0.189	0.971 **	0.197 **	-0.069	0.7902	1.980	0.003625	392
02/01-02/06	-0.310 *	0.697 **	0.176 **	0.070	0.9030	1.861	0.001558	124

**(i) Chinese Renminbi**

Period	Const	USD	JY	EURO	R2-adj	D.W.	Std-res	No. obs.
90/01-91/06	0.317	1.025 **	-0.036	0.007	0.7145	2.007	0.005179	389
91/07-92/12	0.211	1.037 **	-0.041	-0.032	0.8889	2.042	0.003212	394
93/01-94/06	1.037	0.969 **	0.082	0.064	0.1159	2.007	0.019926	390
94/07-95/12	-0.113 *	1.030 **	-0.001	-0.030 **	0.9829	2.082	0.001116	391
96/01-97/06	0.000	1.018 **	-0.010	-0.012	0.9335	2.832	0.001569	391
97/07-98/12	-0.008	0.996 **	0.001	-0.002	0.9919	2.471	0.000597	393
99/01-00/06	0.000	1.002 **	0.000	-0.001	0.9999	2.019	0.000033	390
00/07-01/12	0.000	0.998 **	0.000	0.001	1.0000	2.326	0.000043	392
02/01-02/06	0.000	1.001 **	-0.001 *	0.000	1.0000	2.121	0.000018	124

Note: Double asterisks (\*\*) and a single asterisk (\*) indicate that the estimated coefficients are statistically significant at the 1% and 5% levels, respectively.

Adapted from: Kawai (2002b).

## 5.2 Choice of Fixed, Flexible and Managed Exchange Rate Arrangements

**Two-corner solution approach?** The “two-corner solution” approach suggests that developing economies should adopt either a free float – often supported by inflation or monetary aggregate targeting – or a hard peg – an institutionally committed fixed rate arrangement – in order to prevent a currency crisis (Eichengreen 1994, Obstfeld and Rogoff 1995, Fischer, 2001). The analysis above indicates that no emerging economy in East Asia willingly adopts freely floating exchange rates. The reason is because rates tend to be very volatile and can easily move beyond what the economic fundamentals dictate, exerting a harmful impact on trade, investment and growth. In economies like the United States, Japan or Western Europe, a free float would be less harmful because the financial markets are deeper and economic systems are more resilient. But developing economies have limited ability to absorb large exchange rate fluctuations due to the underdeveloped nature of markets for currency hedging. They are highly reluctant to adopt a free float due to the “fear of floating.” For this reason, some degree of exchange rate stability appears desirable. On the other hand, no large or middle-

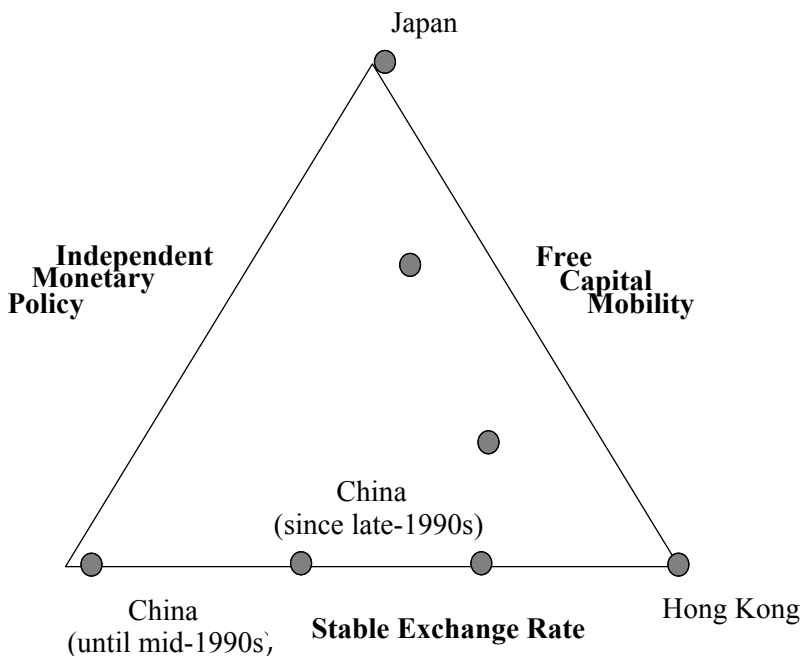
sized economy in East Asia adopts a hard peg – like a currency board system or unilateral dollarization. It may be appropriate for a small open economy like Hong Kong. In outward-oriented, mid-sized economies, maintaining international price competitiveness is critical to sustained economic growth. In economies that undergo substantial structural changes and productivity growth over an extended period of time, real exchange rates need to be adjusted for economic management. Forcing domestic prices and wages to change for such adjustment would be costly. Essentially, these economies need to have the option of allowing some degree of nominal exchange rate flexibility. Many emerging economies in East Asia appear to prefer intermediate, managed float arrangements, striking the right balance between flexibility and stability. While the “two-corner solution” approach gives exclusive attention to the objective of crisis prevention, East Asian emerging economies can pursue other legitimate objectives such as growth, trade and investment promotion through their use of exchange rate policy. A desirable option for them would be neither a pure float because of its potential for excessive volatility and misalignment nor a hard peg. A realistic approach would be what Goldstein (2002) calls “managed floating plus.” This approach is a combination of a “managed float,” i.e., a system with occasional intervention to limit excessive short-term fluctuations in exchange rates without being accompanied by a publicly announced exchange rate target, and a “plus,” i.e., inflation targeting and aggressive measures to reduce currency mismatches. Given greater interdependence of the East Asian economies through trade and investment, stabilizing intra-regional exchange rates calls for closer coordination among the financial authorities in the region. One country’s exchange rate adjustment can have serious, competitive implications for neighboring countries. Hence, the need for coordination on exchange rate policies. Another good reason for coordination is the fact that crisis contagion tends to be concentrated and economic spill-overs limited within a region.

***Capital mobility and monetary policy regimes.*** In examining the choice of exchange rate regimes, three factors need to be taken into account:

- Desirability of exchange rate stability or flexibility
- State of capital account regulation or liberalization
- Need for independent monetary policy

The impossible trinity argument says that a country cannot achieve simultaneously exchange rate stability, free mobility of capital, and independent monetary policy (chart 5).

*Chart 5: Exchange Rates, Capital Mobility and Monetary Policy: Impossible Trilemma*



*Note:*

- (a) Japan = Floating exchange rates, free capital mobility, and independent monetary policy*
- (b) Hong Kong = Fixed exchange rates, free capital mobility, and no independent monetary policy*
- (c) China (until mid-1990s) = Fixed exchange rates, no capital mobility, and independent monetary policy*
- (d) China (since late-1990s) = Fixed exchange rates, limited capital mobility and partially independent monetary policy*

Desirability of exchange rate stability versus flexibility depends on various characteristics of the country in question: nature of shocks affecting the country; economic openness; the degree of monetary policy credibility; the depth and width of money markets; dependence on a certain, large country, etc. The state of the capital account openness has an important implication for the choice of exchange



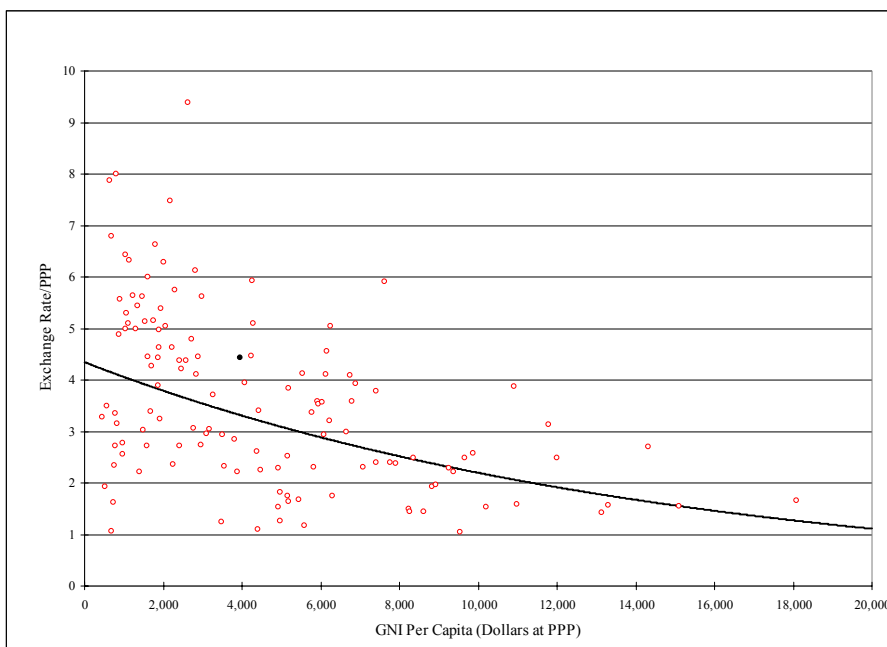
rate regimes. For financially open economies, like Japan, Hong Kong, the monetary authorities must make a balanced choice between exchange rate stability and independent monetary policymaking. Japan chooses to adopt a free float because of its desire to use an independent monetary policy – hence at the top of the triangle in chart 5. Hong Kong chooses to adopt a hard peg (a currency board system) because of its commitment to a fixed rate regime and the perceived ineffectiveness of resorting to independent monetary policymaking in a small open economy context – hence the right-hand side corner of the triangle. For a financially closed country, like China before the mid-1990s, both fixed exchange rates and monetary policy independence can be retained – hence the left-hand side corner. As China relaxes its capital account regulation since the mid-1990s, its position has been shifting rightward in the chart. Many middle-income ASEAN countries, other than Malaysia, are adopting somewhere inside the triangle in the chart, given their less-than perfect financial integration.

**China's Renminbi (RMB) issue.** One of the important issues in East Asia is the future of the RMB – whether the currency should be revalued and if so how. As the deeper integration of China with the world, economy reduces effectiveness of capital controls and creates opportunities for leakages as has been observed in recent rises in errors and omissions in the balance of payments. In addition, the authorities will accelerate the pace of capital account liberalization, albeit gradually, over time to adjust to the economic reality – rising economic openness. This exposes China to larger and more frequent external shocks and may require exchange rate adjustment. In addition, the size of the Chinese economy will continue to grow, and for a large economy, a fixed exchange rate regime is costly and a flexible exchange rate regime is desirable – because it allows the authorities to pursue independent monetary policy – for effective macroeconomic management. Hence, China must exit from the current U.S. dollar peg regime sooner or later, particularly as capital account liberalization proceeds.

This exit pressure is mounting because the RMB appears undervalued. The pace of foreign exchange reserve accumulation clearly indicates that the RMB would be appreciating if the exchange rate regime was a flexible one rather than a *de facto* U.S. dollar peg regime. In addition, analysis of deviations from purchasing power parity (PPP) reveals that the RMB is undervalued, by some 25 to 30%, relative to the norm of developing countries. Chart 6 is a plot of the ratio of actual exchange rate relative to PPP (defined by the World Bank) in the vertical axis against gross national income (GNI) at PPP per capita in the horizontal axis for a group of middle- and low-income developing countries. The relationship is negative due to the Balassa-Samuelson effect. The negatively sloped line is a fitted line. China is above the fitted line and its deviation from the line for its income level is about 27%. As China is expected to grow in its per capita income, the degree of deviation from the fitted average will become bigger over time. In the current overheating

context, revaluation of the RMB is highly desirable, because it will support the authorities' efforts to tighten the credit market.

*Chart 6: Per Capita Income and Deviations from PPP for Developing Countries, 2001*



Source: World Bank, *World Bank Development Indicators* (2003).

Even though RMB revaluation is needed, an abrupt shift to a floating regime is not desirable, nor is a large revaluation due to the shock to the economy. An exit from the current *de-facto* U.S. dollar peg with a moderate increase in rate flexibility is more appropriate to facilitate the needed adjustment and to increase the capacity to absorb various external shocks. More specifically, an exit to a “crawling wider-band” regime accompanied by a gradual revaluation (5–10% per year) in the next few years is recommended. The central rate should better be linked to a basket of major currencies, i.e., the U.S. dollar, yen, and the euro. A G3-currency basket system preserves both flexibility and stability, allowing the authorities to cope with large fluctuations of yen/U.S. dollar exchange rates, which are needed for China to accelerate economic transition and development. Exit must be made at a time of good fundamentals, not at a time of turbulence or crisis.

### 5.3 Exchange Rate Policy Coordination

East Asia is still at an infancy stage of policy coordination. The region's exchange rate policy coordination may evolve in three stages:

- Loose policy coordination: policy dialogue and economic surveillance coordination for institution building, and some limited joint action such as the joint adoption of a common G-3 currency basket system
- Tight policy coordination: macroeconomic policy coordination for regional exchange rate stabilization – an Asian “snake” or ERM
- Complete policy coordination – economic and monetary union with a single currency

***Loose policy coordination: economic surveillance and a G-3 currency basket system.*** The regional economies can start policy dialogue on exchange rate issues as part of the enhanced surveillance process in order to reduce intra-regional currency volatility and misalignment and to facilitate international payments adjustment. This dialogue should focus on exchange market developments, capital flows, foreign exchange reserves, and monetary, fiscal policy and exchange rate policies. In the current context, the regional authorities may discuss such issues as a possible exit of the Chinese RMB from a U.S. dollar peg, the impact of possible RMB revaluation, and policies to facilitate smooth adjustments of the region's payments surpluses.

In addition, the emerging economies in East Asia may adopt a common G-3 currency basket system. For them, because of their increasingly interdependent nature, a certain degree of intra-regional exchange rate stability is clearly desirable, but it should not necessarily be based on the U.S. dollar. A reasonable choice of anchor for exchange rate stabilization would be a basket of G-3 currencies – the U.S. dollar, the euro and the Japanese yen. The reason is that with diverse economic relationships with the United States, Japan and the European Union, exchange rate stabilization vis-à-vis a well-balanced currency basket comprising the G-3 currencies would provide a better buffer to an economy's exposure to yen/dollar and yen/euro rate volatility. Actual currency weights in the new basket will depend on the relative importance of the major trading partners and FDI sources for the region; future expectations of trend movements of the yen/dollar exchange rate; the extent of international use of the euro in East Asia; and the success of internationalization of the yen. The degree of exchange rate stabilization depends on each economy's specific conditions and preferences. Adoption of a common currency basket among emerging East Asia – and loosely or tightly stabilizing each exchange rate to such a basket – would provide a benefit of

maintaining relative stability of intra-regional exchange rates given the rising intra-regional economic interdependence in East Asia.<sup>26</sup>

***A collective action problem.*** Even when a currency basket system is desirable, it is not easy for any single economy to move unilaterally away from the current, U.S. dollar-centered exchange rate arrangement to a new arrangement in which the relative weight of the dollar is smaller and that of the yen and euro larger. When neighboring countries stabilize their exchange rates primarily against the U.S. dollar, there may not be much incentive for any one country to unilaterally alter its exchange rate policy, which demonstrates a potential collective action problem associated with a move to a currency basket arrangement. Even though such a move can be Pareto improving, individual economies may lack the incentives to do so (Ogawa and Ito, 2000). Overcoming this “collective action” problem requires coordination among the countries concerned.

At least initially, coordination would simply require emerging economies in the region to simultaneously adopt a common currency basket as anchor. The operation of the regional currency basket arrangement requires less formality and has greater flexibility than the European Snake of the 1970s or the European Monetary System of 1979–98 because, as long as the basket does not include regional currencies, the need for a formal structure of policy coordination and surveillance is less compelling. This consideration is important given the current lack of commitment to full-fledged regional monetary cooperation in East Asia, the greater diversity in the level of economic and financial developments across countries, and the dynamic nature of East Asian economies, with rapid structural changes and possibly differing productivity growth and inflationary developments.<sup>27</sup>

***Tight policy coordination: an East Asian “snake.”*** As the region becomes more integrated, exhibiting greater economic and political convergence, and hence is better prepared for a more permanent commitment to economic policy coordination, more formal institutions capable of supporting such a commitment need to be built. Indeed, in the second stage of exchange rate policy coordination, several groups of countries in East Asia – like Japan and Korea, or Singapore, Malaysia and Thailand – that are close enough may initiate more aggressive, sub-regional currency stabilization. A multi-track approach would be realistic because countries that are ready can go ahead for closer monetary and financial cooperation, and latecomers will gradually catch up with the forerunners.

<sup>26</sup> This benefit is particularly large for the ASEAN members, which completed the initial phase of the ASEAN Free Trade Agreement in early 2003 through tariff reductions on manufactured products to below 5 %. Preventing wide swings in exchange rates among the ASEAN countries would contribute to the maintenance of relatively stable international price competitiveness and the deepening of the free trade agreement.

<sup>27</sup> Economies with different rates of inflation and productivity growth can – and are expected to – make different adjustments to the reference rates with respect to the basket over the medium term.

For economies to be ready to participate in a regional scheme for exchange rate stabilization, they must strive for greater integration of markets for goods, services, money, capital and labor. They need to conclude their bilateral FTA/EPA as a first step, and then should make efforts to deepen the trade and investment relationship to create a customs union and eventually a common market. To make the task easier, East Asian FTAs should aim for common external tariffs, exclusion lists, rules of origin, and harmonization of standards, procedures and regulations. Convergence towards identical rules and common tariff rates, rules and standards is highly desirable.

To accelerate structural convergence, each economy must pursue structural reform to increase the flexibility of national economic systems (particularly labor markets), strengthen financial systems, standardize of rules of origin, regulatory policy, competition policy, etc. This is particularly the case with ASEAN: Its middle-income member states must reform their economies to cope with greater international competition, particularly vis-à-vis China, while its low-income members must pursue institutional and governance reforms to enable them to benefit from trade and FDI openness.

Finally, financial support mechanisms are needed to help sustain the “snake” through a short-term liquidity arrangement for frequent interventions in the currency market. In addition, systematic macroeconomic policy coordination is needed – particularly monetary and fiscal policy rules – to maintain the “snake” and make the stabilization system credible.

## 6. Concluding Remarks

This paper has argued that the emerging East Asian economies have achieved sustained economic growth through domestic structural reforms, external liberalization and market-driven integration with the global and regional markets. Though this process was temporarily interrupted by the Asian financial crisis in 1997–98, the economies have pursued further liberalization and reforms, deepened economic integration through trade, FDI and finance, and regained dynamic growth.

East Asia can make positive contribution to the stability of global finance and the currency system by ensuring regional financial stability, while preserving an open economic system. One promising approach to regional financial stability is to strengthen East Asia’s emerging financial architecture in a way that complements the global financial architecture. This essentially involves the institutionalization of deepening financial integration and macroeconomic interdependence in East Asia.

There are several challenges for the region. First, the regional economies should accelerate institutionalization of real economic integration through regional and bilateral FTAs. Such regional trade agreements need to avoid the counterproductive “spaghetti bowl” effect and maintain WTO consistency. This

requires conscious efforts to create trade facilitating environments for the region as a whole. The region needs to achieve a “WTO-plus.”

Second, the regional economies need to make further progress on strengthening liquidity provision mechanisms and economic surveillance. It is crucial to enhance the functioning of the CMI on the occasion of its review that started in May 2004 through: the enlargement of its size by as much as ten times the current commitment; multilateralization and joint activation of the currency swap arrangements; and greater use of Asian currencies for swap arrangements. The IMF linkage can also be reduced, but only when accompanied by more effective economic surveillance. The region must address the earlier concern that an AMF that could lend too generously with too little conditionality might create a moral hazard for the government at the receiving end as well as for investors with stakes in the countries in question. It is therefore essential to develop an effective surveillance culture, improve the regional capacity to formulate appropriate adjustment policy in the event of a liquidity crisis and, to the extent necessary, enforce effective private sector involvement. Once these efforts are made, East Asia will have effectively established an Asian Monetary Fund that can contribute to regional financial stability without creating fears of moral hazard.

Third, it is time to initiate exchange rate policy coordination. The first step would be for the regional economies to discuss exchange rate issues as part of enhanced economic surveillance. The next step is the adoption of a common G-3 currency basket arrangement based on the Japanese yen, the U.S. dollar and the euro, given that emerging East Asian countries have diversified trade and investment relationships with the tripolar currency area countries and that the exchange rates among the major currencies would continue to be volatile. The following step would be to share a long-term vision for future economic integration in East Asia, including the possibility of forming an economic and monetary union with a single currency.<sup>28</sup>

Fourth, it is important to overcome various impediments to closer regional economic cooperation. Some of the impediments will become less serious as economic interdependence deepens in the region, while others require fundamental efforts such as integrating ASEAN late-comers with the regional and global markets. The region needs substantial structural reforms on the part of all economies, which is particularly the case with ASEAN: Its middle-income member states must reform their economies to cope with greater international competition, particularly vis-à-vis China, while its low-income members must pursue institutional and governance reforms to enable them to benefit from trade and FDI openness.

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<sup>28</sup> Such a vision has been provided by East Asia Vision Group (2001) and East Asia Study Group (2002).

Finally, the IMF remains the only global financial institution governing the international monetary system and East Asia's regional financial architecture must complement its role. Strengthening the region's financial architecture will also strengthen the IMF's global role because regional financial stability contributes to the stability of global finance. At the same time, there is a need to rectify the imbalance and unfairness in the current distribution of IMF quotas and voting rights, which are heavily skewed against East Asia. The East Asian quotas are unrealistically small in relation to their actual weights in the world economy. Greater allocation of quotas to East Asia would undoubtedly make its representation at the IMF Executive Board commensurate with the changing reality and restore fairness and integrity in and for global financial management.

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