Ten Years After The Asian Financial Crisis[*]

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I. Introduction

It is indeed a great honor and pleasure for me to be here to talk about the topic "Ten years after the Asian financial crisis." The Asian financial crisis began in Thailand on July 2, 1997 when the Thai baht experienced sharp depreciation. Within weeks the Thai crisis spread to Malaysia, Indonesia, the Philippines, and Korea. A national crisis thus became a regional problem. Currency and equity markets in the crisis-affected countries were under pressure and foreign capital fled. Other Asian economies also suffered in varying degrees because of the spillover effects of the crisis.

Ten years have passed since the Asian financial crisis. The crisis is over, but the effects of the crisis have not yet been completely erased. The economies of Asia have shown a steady and stable recovery and have become increasingly integrated in the past years. However, GDP growth of the crisis-affected countries slowed down after the crisis. As of the end of June 2007, the currency exchange rates of the crisis-affected countries had not rebounded back to their original levels before the crisis. The possibility of currency and banking crisis, unexpected external shocks and the cyclical economic slowdown could be just around the corner. How to prevent future financial crisis, therefore, remains a subject of concern for monetary authorities, financial specialists, economists, bankers, investors and the general public.

This afternoon, I would like to take this opportunity to discuss the following topics: (1) policy responses to the crisis; (2) economic growth and domestic investment in the five crisis countries in the last decade; (3) development of financial markets and capital flows; and (4) strategies for preventing future financial crisis; followed by concluding remarks.

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II. A Review of Policy Responses to the Crisis

First of all, I would like to review the major policy measures taken by the crisis-affected countries ten years ago because they have had a far-reaching impact on the recent economic and financial developments in these countries.

At the beginning of the Asian financial crisis, the immediate measures taken by the crisis-affected countries included: (1) direct intervention by the central banks through the sale of US dollars in the exchange market; (2) widening of the trading band for national currency against the US dollar; (3) raising short-term interest rates; (4) imposing restrictions on lending to foreigners; and (5) curbing of forward foreign exchange transactions. However, these measures were ineffective in restoring confidence in the currencies.

The currency crisis in Asian countries was caused by fundamental economic weaknesses. The crisis-affected countries were faced with a structural problem, and had to enact reform measures and credible policies to deal with the crisis. They adopted the following policy measures in responding to the crisis:

1. Exchange Rate Flexibility

The crisis-affected countries lacked appropriate and realistic exchange rates before the crisis. Under a fixed or quasi-fixed exchange regime (i.e. pegged to the US dollar), the national currency is often over-valued.

Over-valued currencies prevented the automatic balance of payments adjustment, and became targets for speculators with a view to profiting from the devaluation. The central bank, in its commitment to maintaining the exchange rate, would run the risk of depleting foreign exchange reserves or would be forced to devalue its currency if capital outflows became large.

After the crisis, the five crisis-affected countries were forced to abandon their fixed or pegged exchange rates, and adopted a managed floating exchange rate system. Their currency exchange rates are now determined by market forces.

2. Financial Restructuring

The weakness in the financial system and poor quality of bank loans had been identified as key factors contributing to the Asian financial crisis. With large short-term capital inflows, commercial banks in the five countries had incurred substantial foreign currency liability and exposed the banks to exchange risk without hedging.

The International Monetary Fund required the crisis-affected countries to undertake financial sector reforms. Such reforms included restructuring of financial institutions, compliance with the Basle capital adequacy requirement, the establishment of Best Practice guidelines, closure of problem banks and finance companies, encouragement of mergers and acquisitions, reduction in non-performing loans, and strengthening of bank regulation and supervision, among others.

3. Management of Short-term Capital Flows

The five crisis-affected countries had experienced continuous trade and current account deficits before the crisis. They relied on capital inflows, particularly short-term external borrowings, to finance their deficits. The inflows of short-term capital brought excessive liquidity to the banking system and encouraged bank expansion of lending. Loans that were used to buy stocks and real estate experienced a drop in asset value because of the depressed market before the crisis. The number of non-performing bank loans increased rapidly. Short-term capital movements, therefore, posed a threat to macroeconomic and financial stability.

Realizing the adverse effects of short-term capital flows on the credit, stock and foreign exchange markets, the crisis-affected countries had taken measures to discourage massive inflows of hot money, and regulate or monitor short-term capital movements. Special emphasis was placed on foreign direct investment and long-term foreign loans to meet the financing requirements by the private sector.

III. Economic Growth and Domestic Investment

1. Slower Growth

Before the crisis, the East Asian countries had long been used to recording high growth rates (Table 1). GDP growth of the five crisis-affected countries turned negative in 1998. Although they had resumed their growth trend in 1999, their growth rates in the post-crisis period were far lower than during the pre-crisis years.

The financial crisis has slowed down economic growth in the crisis-affected countries with the exception of the Philippines. Comparing the period 2000-2006 with 1990-1996, GDP growth had slipped by an average of 2.5% a year in Indonesia, Korea, Malaysia and Thailand[1]. To compensate for the output loss during the crisis years, a faster than normal growth would be required in the post-crisis period.

For the period 2000-2006, slower output growth was also recorded in Japan, Singapore, Taiwan and Vietnam. On the contrary, growth was accelerating in Hong Kong and India after the Asian financial crisis and in China from 1999.

Table 1. Growth Rate of GDP

Unit: % per year

	Average 1990-96	Average 2000-06	1997	1998	2005	2006*	2007**
A. Crisis-affected Countries							
Indonesia	7.8	4.9	4.7	-13.1	5.7	5.5	6.0
Korea	8.3	5.3	4.7	-6.9	4.0	5.0	4.5
Malaysia	8.9	5.3	7.3	-7.4	5.2	5.9	5.4
Philippines	3.1	4.8	5.2	-0.6	5.0	5.4	5.4
Thailand	9.6	5.0	-1.4	-10.5	4.5	5.0	4.0
B. Other Asian Economies							
China	10.5	9.4	8.8	7.8	10.4	10.7	10.0
Hong Kong	4.9	5.5	5.1	-5.0	7.5	6.8	5.4
India	5.6	6.9	4.8	6.5	9.0	9.2	8.0
Japan	2.2	1.9	1.4	-1.8	2.7	2.8	2.0
Singapore	8.9	5.4	8.5	0.9	6.6	7.9	6.0
Taiwan	6.9	3.8	6.6	4.6	4.1	4.7	4.3
Vietnam	7.9	7.5	8.2	5.8	8.4	8.2	8.3

Notes: * preliminary estimate
** ADB forecast
Source: Asian Development Bank

[1] Asian Development Bank, Asian Development Outlook 2007, p.46

2. Declining Investment Rates

To find out why the output growth in each year from 2000 to 2006 was lower than the growth rates in any pre-crisis year from 1990 to 1996, we may use the Cobb-Douglas production function[2]. According to this growth accounting framework, the changes in the total factor productivity, employment and fixed capital are the possible causes of slower growth.

The study report of the Asian Development Bank pointed out[3] that the growth of employment accelerated between the two periods 1990-1995 and 2000-2005 in the Philippines and Thailand, barely changed in Indonesia, and slowed in Korea and Malaysia. This mixed picture cannot explain a general trend of slowing growth.

With regards to growth in the total factor productivity (TFP), in general, the effect of the crisis on TFP growth is likely to be negative. The Asian Productivity Organization (APO) survey indicated that TFP growth has reverted to pre-crisis trends after the crisis. Therefore, slower technical progress is an unlikely cause of the deceleration of GDP growth in the crisis-affected countries.

If changes in labor force and TFP growth cannot account for the slowing of output growth in the crisis-affected countries, it follows that the sharp fall in the rate of fixed capital formation, particularly by the private sector, had a pronounced impact on output growth. Data on capital formation show that the fixed investment rates in the crisis-affected countries dropped sharply in the post-crisis period (Table 2). The investment rates of the crisis-affected countries, except for Korea, were too low, compared with those of China and Vietnam after the crisis. Clearly, a slower growth generated smaller savings and brought aggregate investment rate down; and the declining investment led to the slowing of output growth.

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[2] Cobb-Douglas production function is:

$$Y = AK^{\alpha} N^{1-\alpha}$$

where Y is aggregate output (measured by GDP), A is total factor productivity, K is the capital stock, and N is total hours worked.

[3] Asian Development Bank, Asian Development Outlook 2007, pp.49-51.

Table 2 Fixed Investment Rates

Unit: % of GDP

	Average 1990-96	Average 2000-05	1997	1998	2004	2005
A. Crisis-affected Countries						
Indonesia	27.6	19.9	28.3	25.4	21.3	20.7
Korea	37.2	29.7	35.6	30.4	29.5	29.3
Malaysia	38.8	22.7	43.1	26.9	20.4	20.0
Philippines	22.4	17.6	24.4	21.2	16.5	15.5
Thailand	40.4	24.5	33.8	22.4	25.9	29.0
B. Other Asian Economies						
China	32.4	37.7	33.6	35.0	40.2	41.5
Hong Kong	28.4	23.0	33.6	30.4	21.3	20.9
India	22.6	24.1	21.7	21.5	25.9	…
Singapore	34.8	25.8	38.7	37.4	23.8	21.8
Taiwan	23.1	19.8	22.5	23.5	20.5	19.9
Vietnam	20.4	31.3	26.7	27.0	33.4	33.1

Note: … =   not available

Source: Asian Development Bank

IV. Financial Markets and Capital Flows

1. Fluctuation in Exchange Rates

From July 2, 1997 through the end of 1998, the nominal exchange rate (the US dollar price of the national currency) depreciated drastically in the crisis-affected countries. The Indonesian rupiah depreciated by nearly 70%, the Philippine peso, the Thai baht and the Malaysian ringgit by more than 30%, and the Korean won by 26% (Table 3). Of the other Asian economies, only China and Hong Kong had been able to avoid depreciation. China devalued the exchange rate of the Chinese renminbi from 5.8 yuan to 8.7 yuan per US dollar in January 1994. The exchange rate of Chinese currency fluctuated between 8.3 to 8.28 yuan per US dollar during the crisis years.

With the exception of Malaysia, the other four crisis-affected countries adopted a floating exchange rate system after the financial crisis. The exchange rates of their currencies are determined by market forces, and have been fluctuating since 1998. The Malaysian government decided to adopt a fixed exchange rate system on September 2, 1998. The exchange rate of Malaysian currency was fixed at 3.8 ringgit per US dollar.

Table 3 Change in Exchange Rates (End of Period)

Unit: national currency units per US dollar

Currency	Mid-1997	1998	2006	June2007	% change Mid-1997 -Dec 1998	% change Mid-1997 -June 2007
A. Crisis-affected Countries						
Indonesian Rupiah	2,431.9	8,075	8,995	9,045	-69.9	-73.1
Korean Won	889	1,204	929.65	923.80	-26.2	-3.8
Malaysian Ringgit	2.5249	3.8	3.527	3.453	-33.6	-26.9
Philippine Peso	26.375	39.145	49.01	46.24	-32.6	-43.0
Thai Baht	24.7	36.63	35.725	34.53	-32.6	-28.5
B. Other Asian Economies						
Chinese Renminbi	8.3	8.28	7.8072	7.6155	0.2	9.0
Hong Kong Dollar	7.7468	7.7474	7.7751	7.8163	0.0	-0.9
Japanese Yen	114.29	115.2	119.11	123.52	-0.8	-7.5
Singapore Dollar	1.4309	1.6595	1.5331	1.5324	-13.8	-6.6
New Taiwan Dollar	27.812	32.216	32.596	32.735	-13.7	-15.0

Sources: Bloomberg, Reuters

As of June 29 this year, the currency exchange rates of the crisis-affected countries had not rebounded back to their original levels before the crisis. Compared with their levels on June 30, 1997, the Indonesian rupiah depreciated by 73%, the Philippine peso by 43%, the Thai baht and the Malaysian ringgit by 29% and 27%, respectively, and the Korean won by 4%. The currency exchange rates of these five countries are expected to appreciate in the coming months in line with the revaluation of the Chinese renminbi.

The benefit from undervaluation of currencies in the crisis-affected countries was the lowering of prices of their export goods and improvement in the competitiveness of their export products in the world market. The increased foreign demand for their commodities would help them expand exports and increase their trade surpluses. However, in order to solve global current account imbalances, Asian countries are expected to realign their currencies in the coming years.

2. Rise in Share Prices

The financial crisis also adversely affected stock markets in Asia. During the period from June 1997 to December 1998, the stock indices fell by about 45% in Kuala Lumpur and Jakarta, by 33% in Bangkok, and by 30% and 25% in Manila and Seoul, respectively (Table 4). During the period from January 1999 to June 2007, the stock prices in the five countries had maintained an increasing trend in general with some adjustments from year to year. As of June 29, 2007, the stock prices in Jakarta and Seoul had more than doubled compared with their levels ten years ago, and the stock prices of Bangkok, Manila and Kuala Lumpur rose by 47%, 31% and 26%, respectively, compared to the share prices in June 1997.

Table 4 Change in Stock Indices

City	Mid-1997	1998	2006	June2007	% change Mid-1997 -Dec 1998	% change Mid-1997 -June 2007
A. Crisis-affected Countries						
Jakarta	724.56	389.08	1,805.12	2,139.27	-45.1	195.3
Seoul	745.40	562.46	1,434.46	1,743.60	-24.5	133.9
Kuala Lumpur	1,077.30	586.13	1,096.24	1,354.38	-45.6	25.7
Manila	2,809.21	1,968.78	2,982.54	3,665.23	-29.9	30.5
Bangkok	527.28	355.81	679.84	776.79	-32.5	47.3
B. Other Asian Economies						
Shanghai B	81.478	28.711	130.12	254.981	-64.8	212.9
Shenzhen B	144.72	53.58	433.32	672.20	-63.0	364.5
Hong Kong	15,196.79	10,048.58	19,964.72	21,772.73	-33.9	43.3
Tokyo	20,604.96	13,842.17	17,225.83	18,138.36	-32.8	-12.0
Singapore	1,987.95	1,392.73	2,985.83	3,548.20	-29.9	78.5
Taipei	9,030.28	6,462.03	7,823.72	8,883.21	-28.4	-1.6

Source: Bloomberg

3. Trends in Capital Flows

The five crisis-affected countries suffered from large resource gaps and current account deficits during 1990-1996. Since their domestic savings were inadequate to meet investment requirements necessary for development, they relied on foreign capital inflows to bridge the savings-investment gap and to finance the current account deficit. The inflows of foreign capital were mainly in the forms of foreign direct investment, portfolio investment, official assistance and commercial bank lending.

Developing Asian countries welcome foreign direct investment (FDI) as it will generate economic benefit to the host country. Annual FDI in the five crisis-affected countries was about US$ 17 billion in 1996 and 1997. Affected by the financial crisis, total FDI to these countries dropped to US$12 billion in 1998 and further to US$5 billion in 2001 (Table 5). After the crisis, foreign investors became concerned about the transfer risks, expropriation and other factors, and redirected their investments from the crisis-affected countries to China and Vietnam.

Table 5 Foreign Direct Investment and Portfolio Investment

Unit: US$ billion

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
A. Foreign Direct Investment in Reported Economies										
Five Crisis-affected Countries[1]	17.5	17.8	11.9	18.7	14.1	5.2	8.2	7.8	18.2	19.2
China	40.2	44.2	43.8	38.8	38.4	44.2	49.3	47.1	54.9	79.1
Vietnam	2.4	2.2	1.7	1.4	1.3	1.3	1.4	1.5	1.6	2.0
B. Portfolio Investment[2] in Reported Economies										
Five Crisis-affected Countries	35.0	15.6	-0.8	9.4	8.4	10.9	6.4	28.3	33.5	27.7
China	2.4	7.8	0.1	-0.7	7.3	1.2	1.8	8.4	13.2	21.2

Notes: 1. Indonesia, Korea, Malaysia, Philippines and Thailand
2. Includes investment in equity securities and debt securities
Source: International Monetary Fund

In the 1990s interest rates in the industrial countries were relatively low; international investors, therefore, tried to search for higher yield investments in developing Asia. Their short-term investments included purchases of securities and bonds, foreign currency deposits and transactions of financial derivatives. There was a significant increase in portfolio investment in the crisis-affected countries in the first half of the 1990s. The portfolio investment in these countries was as high as US$35 billion in 1996 (Table 5).

As a result of the increased portfolio investment and short-term foreign borrowings, the short-term external debt (with a maturity of less than one year) exceeded international reserves in Indonesia, Korea and Thailand before the crisis. The financial crisis not only caused a decline in foreign capital inflows but also led to an increase in capital outflows. Consequently, the portfolio investment in the five countries decreased drastically to US$15 billion in 1997 and -US$0.8 billion in 1998. However, the flow to these countries increased again in 1999 when economic recovery gained momentum and business confidence was restored. It reached US$ 33.5 billion in 2004, which was about the same level as in the pre-crisis years.

V. Strategies for Preventing Future Financial Crisis

It is obvious that the Asian financial crisis had a profound impact on Asian economies. All the five crisis-affected countries were plunged into recession, their currencies devaluated sharply and stock prices fell drastically. The resulting economic and financial instability caused great economic, financial and social losses to the crisis- affected countries. Since financial crisis may occur again in the future, how to prevent the recurrence of financial crisis has become a major challenge for policy makers. In my view, the developing Asian countries must adopt sound and consistent economic and financial policies, establish an early warning system, develop regional bond markets and promote regional financial cooperation, among others. These strategies and policy measures are discussed briefly as follows.

1. Implementation of Sound Economic and Financial Policies

With increasing financial liberalization and globalization, the risk of financial crisis is rising. To prevent future financial crisis, the government must adopt and implement sound and consistent macroeconomic policies. Financial liberalization in the 1980s led to a dramatic increase in short-term capital flows. Massive short-term capital flows inevitably caused economic and financial instability to a small and open economy. The challenge faced by the government is to discourage inflows of hot money and regulate or monitor short-term capital flows in order to minimize its negative impact.

Weak management and poor control of risk in the banking system was one of the causes of the financial crisis. To address the weakness in the financial sector and poor quality of bank loans, it is important to undertake bank restructuring and financial reform. The tasks include prudent banking supervision, greater transparency, promotion of corporate governance, disclosure requirements, minimum capital requirements, and adequate loan loss provision, among others. An efficient financial and banking system would mobilize more capital resources for development investment.

It is worth noting that Taiwan and Singapore were least affected by the Asian financial crisis because of their sound economic fundamentals, long-term trade surpluses, adequate international reserves, and negligible external debt. Their sound and appropriate economic, fiscal and monetary policies had promoted technological progress and productivity growth, and made their economies very dynamic and resilient. Their experience provides a good example for other Asian countries to follow.

2. Establishment of an Early Warning System

To avoid future financial crisis, a key task for policy makers is to identify weaknesses and imbalances early enough to be able to address them before a crisis should erupt. The development and monitoring of early warning indicators of vulnerability would be helpful in this regard. To develop an early warning system, several leading indicators including the stability of export growth, the ratio of short-term external debt to international reserves, and the change in effective exchange rates should be considered. These indicators will help policy makers and bankers detect the signs of a financial crisis in advance, and take remedial action as soon as possible. If the government authorities had responded immediately at the early stages of the financial crisis, it would have been much easier to deal with the crisis, and the cost to everyone involved would have been greatly reduced.

3. Development of Asian Bond Markets

The Asian financial crisis promoted rethinking of the role of financial markets in the region's economic development. Banks had long been at the center of Asian financial systems. The crisis revealed that the bank-centered financial system had weaknesses; therefore, the development of Asian bond markets is important and necessary.

There is increasing evidence that countries benefit from a well-diversified financial system with a role for both banks and securities markets. This system should be conducive to an efficient allocation of resources and help minimize the risk of financial crisis.

Statistics show that there is an immense pool of savings in Asia, but bond markets in Asia have not been sufficiently developed to utilize the majority of the funds. Part of the Asian savings has been channeled into Europe and the United States. The development of Asian bond markets will help repatriate these funds. It is in this context that recent efforts have been exerted to foster the development of Asian bond markets. Among the initiatives in this area are the Asian Bond Fund Initiative (ABFI) of the ASEAN+3 countries (Japan, South Korea and China), the APEC Regional Bond Market Initiative, and the Asian Bond Market Initiative led by the Asian Development Bank.

The development of Asian bond markets has a long way to go. If the said proposals materialize, they would contribute to the creation of a sound financial system in Asia and the provision of financial needs for the growth of Asia.

4. Promotion of Regional Financial Cooperation

The inter-dependence among the Asian economies is rapidly growing, due to increasing intra-regional trade as a result of shifts in comparative advantage and increasing division of labor. Asian economies will need to work together to support the growth and development of economic integration in Asia.

Apart from regional economic cooperation, there is a need for closer monetary and financial cooperation among the Asian economies. A number of regional monetary cooperation schemes have been proposed in connection with the Asian financial crisis. They include: regular meetings of Asian finance ministers and central bank governors, the establishment of an Asian Monetary Fund, the Miyazawa Plan, collateralized bond obligations (CBOs) plan, and a guaranteed facility to be provided by the Asian Development Bank, or the United States, Japan, Singapore and Taiwan. The nature, scope, form and amount of each proposal varies.

In addition, several other regional initiatives have been proposed or studied in recent years. They include finance ministers processes under ASEAN, ASEAN+3, Asia-Europe meeting, Asian currency unit and Asian Bond Markets Initiative, among others. These proposals should help minimize financial contagion and prevent future financial crisis in the Asian region.

VI. Conclusion

In conclusion, the costs of a financial crisis are large. Asian economies have learned lessons from the experience in the 1997 financial crisis, and ten years after the crisis, the economies of the five crisis-affected countries are enjoying growth. Social indicators are improving. Per capita incomes in these countries now surpass their pre-crisis levels. However, they have experienced economic slowdown; growth rates in the post-crisis years have been lower than during the pre-crisis period. There has also been a sharp drop in fixed investment rates. Low investment rates are likely to pull output growth down in the crisis-affected countries in the future.

Economic restructuring and financial reform undertaken since the financial crisis have improved economic fundamentals of the crisis-affected countries. Reforms have boosted bank performance and lifted the quality of bank loans significantly. With a bright growth outlook and improved business environment, the five crisis-affected countries, China and Vietnam have become the primary recipients of foreign capital, attracting substantial inflows of foreign direct investments and portfolio investments in recent years. As a result, the share prices in these countries rose year by year, and in June 2007 they were higher than the pre-crisis levels.

Robust performance of both current and capital accounts in the crisis-affected countries after the crisis underpinned the strength of their currencies. A sharp build up of foreign exchange reserves has been seen in East Asia since 2002. Reserves accumulation provides a buffer against speculative attacks. The currencies of the five crisis-affected countries have strengthened against the US dollar in recent years. However, as of June 29, 2007, their currency exchange rates are still in depreciation position against the rates prevailing before the crisis. Following the continuing appreciation of the Chinese yuan, Asian currencies are projected to appreciate in the coming months.

In spite of the fact that the crisis-affected countries have maintained a stable growth and improved international financial position, and that the possibility of another crisis is significantly reduced by sizable reserves, they are not completely immune to financial crisis. Therefore, developing Asian countries should adopt and implement sound macroeconomic and financial policies to strengthen the financial sector to minimize financial contagion and risks. It is also desirable and important to establish an early warning system so that the governments can take immediate action before the occurrence of a crisis. In addition, the development of Asian bond markets is necessary to provide long-term funds for development financing in the region. Last but not least, all the Asian countries are urged to work together to maintain regional financial and monetary stability, and prevent any possible financial crisis in the future.

Thank you.

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