

**Experiences and Lessons of Monetary and
Financial Systems in East Asia**

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March 2003

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1. Factors behind the Asian Currency and Financial Crisis

In July 1997, the Thai baht plunged due to a rapid outflow of short-term capital, triggering a series of Asian currency and financial crises in South Korea, Indonesia, and Malaysia (so-called contagion).

With regard to the factor behind the Asian currency and financial crisis, various explanations have been made. For instance, there is a “fundamentals model” that attributes the crisis to an unsustainable deterioration in macroeconomic fundamentals, such as current account deficits, a “bank run model” that attributes to a change in the expectations on future economic outlook held by internationally active speculators, such as hedge funds, a “moral hazard model” that focuses on the deterioration of investors’ moral hazard due to the explicit or implicit government guarantees for bank lending in the developing countries, and a “micro-economic approach” that traces the currency crisis to the problem that overseas financial assets are not a perfect substitution to domestic financial assets (for example, see Hamada (2000)). However, the Asian currency and financial crisis has some characteristics that were not seen in developing countries’ currency crises until the 1980s. The characteristics are particularly important from two aspects: relations with the international capital flows that became active in the 1990s and the structural problems of domestic financial systems.

As to the relations with international capital flows, the point is that the currency regimes of the countries hit by the crisis, i.e., their *de facto* dollar-peg, invited too rapid an inflow and outflow of capital for the object economy to digest. As to the structural problems of domestic financial systems, the Asian countries’ financial systems, which were sometimes criticized as crony capitalism, left many important lessons to countries other than Asian countries, such as the destabilization of financial systems caused by insufficient regulations and financial supervision and the deterioration of bad-loan problems. With macro-economic aspects, such as the currency regime and international capital flows, and the micro-economic aspects such as bank systems and financial systems, mutually intertwined, the Asian currency and financial crisis revealed the difficulty of coping with a new type of crisis in the 1990s. It also revealed that new prescriptions, that are clearly different from conventional prescriptions of up until the 1990s, such as those of the IMF, are necessary.

In this paper, I would like to discuss first the relevance of the exchange rate regime to the Asian currency crisis, then examine the financial system stabilization measures adopted after the crisis, such as disposal of non-performing loans, and then study the

current status and future agenda of the intra-regional financial cooperation efforts made by East Asian countries to prevent the recurrence of currency crisis.

2. Exchange Rate Regimes of East Asian Countries

A study of the economic performance of the countries before they were hit by the currency and financial crisis shows that their economic fundamentals and economic policy management were not significantly bad. For instance, a study of the macro-economic performance of Thailand, South Korea and Indonesia from the second half of the 1980s to the mid-1990s shows that their economic growth rate was high at 5-10% and that their inflation rate was stable at below 10%, in sharp contrast with Central and South American emerging markets that were plagued with chronic hyper-inflation (Figure 1~3). They were also different from Central and South American and other developing countries in that they were recording fiscal budget surpluses and that their macro-economic policy management was basically sound. The World Bank featured the “East Asian Miracle” in its report published in 1993 (World Bank (1993)). The report was based on the World Bank’s recognition of the relatively good economic performance and macro-economic management of the East Asian countries.

From the beginning of the 1990s to the mid-1990s, the high economic growth of these countries raised expectations for still higher growth and this, combined with aggressive investment activities that were accelerated by a series of capital liberalization measures adopted by the Asian countries, induced a massive inflow of capital from abroad. The only problem that could be cited is that in any of these countries current account deficits had swollen in several years before the crisis. The current account deficits had been financed by a sharp increase in the inflow of short-term capital shortly before the crisis, and the inflow of capital in turn had been supported by high interest rates in these countries. Under the circumstances, a drastic change in market expectations caused a rapid outflow of capital. This is the root cause of the crisis.

Now, I would like to discuss the relations between the exchange rate regimes of East Asian countries and international capital movement-caused currency crisis, outline various arguments about the currency systems adopted after the crisis, and then review the current currency systems and monetary policies of East Asian countries.

(1) Exchange rate regimes before the crisis

Officially, the countries that were hit by the Asian currency crisis had been adopting a managed exchange rate regime under a currency-basket formula. In truth, however, their systems were dollar-pegged or close to dollar-pegged currency systems, and the *de facto* exchange rate regime had deviated from the *de jure* exchange rate regime.

For example, Thailand had maintained a fixed dollar-peg system linking the Thai baht to the U.S. dollar even after the collapse of the Bretton Woods system caused by the Nixon Shock of 1971. However, since the exchange rate of the baht stayed at a high level and overvalued due to high interest rates and a strong dollar in the United States in the first half of the 1980s, the country's trade balance deteriorated. In November 1984, the country adopted a currency-basket system in order to depreciate the baht and promote exports. However, since the dollar fell sharply due to the Plaza Accord in September 1985, the value of basket-component currencies, such as the yen, increased, resulting in the appreciation of the baht against the dollar. Concerned about its possible adverse effect on the country's exports, the Thai authorities changed the component ratios of the basket currencies and increased the weight of the dollar (said to have been increased to about 80%). As a result, the country's exchange rate regime became close to a dollar-pegged system and remained so when the currency crisis hit the country in 1997.

As just described, countries hit by the currency crisis, such as Thailand, South Korea, and Indonesia all claimed that they had adopted a currency basket system. However, a view that their currencies were virtually pegged to the dollar is generally endorsed (Frankel and Wei (1994)). Although these countries did not disclose the weight of each basket currency, empirical studies of exchange rate movements before the crisis show that the dollar had been given an overwhelming weight in the currency baskets.

These *de facto* dollar-peg systems are believed to have caused the currency crisis, as they induced a rapid inflow and outflow of capital under free capital mobility. Its mechanism is explained below.

(2) Adverse effects of *de facto* dollar-peg and capital flows

The *de facto* dollar-peg, since it minimizes the exchange risk for foreign investors, has the effect of actively promoting inflows of capital necessary for economic growth. However, it also excessively reduces overseas investors' sense of vigilance against the exchange risk. This, combined with the structural problems of the weak bank sector and insufficient financial supervision in the countries that will be discussed later,

promoted too great an inflow of capital for the domestic real economy to digest, resulting in the creation of asset bubbles of real estate and stocks.

During the 1990s, the international flows of capital increased drastically against the background of the end of the Cold War, progress in globalization, innovation in information and communication technology, and development of new financial technologies. The *de facto* dollar-peg accelerated the capital flows and invited a new type of currency and financial crisis caused mainly by the international flows of capital. The Asian currency and financial crisis was a series of events, such as massive and drastic inflow and outflow of capital, fluctuations of foreign exchange markets and drop in currency value, and the collapse of domestic financial systems. But this is not limited to Asia. For instance, a similar mechanism caused the Mexican crisis of 1994-1995.

These crises are totally different from the currency crises that took place up until the 1980s. The monetary crises before the 1980s were mainly international balance of payments crises caused by improper macroeconomic policy management. Therefore, a conventional prescription for the crises was to restore the balance of payments equilibrium by tightening fiscal policies and raising interest rates.

On the other hand, the fundamental cause of the currency crisis in the 1990s was international inflows and outflows of massive amounts of capital against the background of economic globalization. Despite the soundness of economic fundamentals of the countries affected, the onset of the crisis was due to a sharp decline of exchange rates triggered by massive and rapid outflows of capital.

As to the Asian countries hit by the crisis, they had lost their export competitiveness as their currencies had been pegged to the dollar despite the fact that their effective exchange rates changed wildly during the yen's downward adjustment from the spring of 1995 to 1997. Since the massive inflow of capital was mainly directed to bank lending and therefore very speculative in nature and not backed by actual demand, once an outflow began, the foreign capital was quick to run out of the countries. This, coupled with speculative moves by hedge funds, amongst others, made it difficult for monetary authorities to support the value of their currencies in spite of exchange intervention. In the end, the currencies dropped sharply.

The sharp depreciation of the Thai baht prompted Western investors to think that the same thing would happen in other Asian countries with a similar economic structure to Thailand, leading to a rapid outflow of capital from South Korea and Indonesia, a phenomenon called "contagion."

The Asian currency and financial crisis can be viewed as a new type of crisis that

would occur when an international flows of capital takes place on a massive scale and in a short period of time. The question is what kind of exchange rate regime is effective in preventing this new kind of crisis from occurring. The question was discussed at various forums in Washington and Asian countries. But no consensus has yet to be reached. In the next section, I would like to sort out various arguments amongst international organizations and scholars about post-crisis exchange rate regimes in emerging market countries.

(3) Ideal foreign exchange system

The “trilemma” that imposes a stark trade-off among “capital market openness,” “exchange stability,” and “independence of monetary policy” is well known as an international finance theory. For instance, on the presupposition that international capital flows is free, if a fixed exchange rate system is to be maintained, it is difficult to use monetary policy independently to adjust a domestic economy. Conversely, if monetary policy is to be managed independently under a fixed exchange rate system, capital flows must inevitably be restricted. When capital flows is free, if one wants to maintain monetary policy independence, one must inevitably abandon the fixed exchange rate system.

In the end, the arguments about which exchange rate regime should be chosen boil down to the question of which to take and which to abandon among “capital market openness,” “exchange stability,” and “independence of monetary policy.” There is a consensus that which exchange rate regime a country chooses depends on various factors, including the country’s economic structure and the degree of its dependence on external trade. For instance, for a country highly dependent on a particular country or region for its trade and investment, it is sensible for the country to fix its currency to that particular country’s currency at the expense of monetary policy independence. A case in point is African countries of former French colonies (Cameroon, Cote d’Ivoire, Senegal, etc.) that completely fix their currencies to the French franc (now Euro) (They form a common currency zone called the CFA franc zone, and the French Minister of Economy, Finance and Industry virtually decides monetary policy). On the other hand, for a country whose labor market is flexible and whose domestic prices and wages respond flexibly to exchange rate fluctuations, adopting a floating exchange rate system will cause no major problems. Moreover, a country whose external dependence is low, has good reason to adopt a floating exchange rate system.

If we take these theoretical backgrounds into consideration, views on post-Asian currency crisis exchange rate regimes can be divided into the so-called “two-corner

solutions,” or a bi-polar view, and a view that stands in between.

(4) Arguments about “two-corner solutions”

“Two-corner solutions” refers to the idea that completely hard-pegged exchange rate regimes, such as currency board arrangements and dollarization, or purely floating exchange rate systems are the only viable alternatives of exchange rate management for emerging market countries. It also implies that, if a complete floating exchange rate system is chosen, it is preferable to adopt inflation targeting as an anchor for monetary policy management.

A currency board arrangement is defined as a country’s monetary system designed to maintain the confidence in the country’s currency by fixing its conversion rate with key currencies, such as the dollar, by linking the country’s base money to foreign reserves, by abandoning its monetary policy independence, and by leaving no room for inflationary monetary policy. Small countries, such as Hong Kong, Estonia and Lithuania have adopted currency board arrangements. Argentina adopted a currency board arrangement until 2001. Dollarization means that a country voluntarily renounces monetary sovereignty and to use dollar as its circulation currency. Ecuador has adopted dollarization.

Behind the idea of “two-corner solutions” is the view based on reflections from the new type of currency crises in the 1990s, such as the Asian currency and financial crisis, that the intermediate regime (soft-peg) is not appropriate for emerging market countries, as they are liable to come under market attack due to their high exposure to inflows and outflows of international capital. There is also a problem that, due to the adoption of a soft-peg, the country often keeps exchange rates far removed from its real economy for a long time, causing balance of payments problems. Another problem is that since dollar-denominated external private debts without exchange hedge increases, it is highly likely to cause problems if the country devaluates its currency.

For instance, the IMF, in its spring 2001 “World Economic Outlook,” which featured downward trends of inflation rates in emerging market countries, says that the monetary and exchange policies of emerging market countries are converging on “two-corner solutions.” In particular, it maintains that the adoption of inflation targeting by these countries lowered and stabilized inflation expectations and contributed to stable growth of their economies (IMF (2000)). Figure 4 shows changes in the monetary and exchange policies of twenty-four emerging market countries in Asia and Latin America. In the mid-1980s, 80% of the countries were adopting a soft-peg (including crawling-peg and crawling band) and only 20% were adopting a

floating exchange rate system. However, in the 1990s, many countries shifted to a floating exchange rate system and the number of countries adopting a hard-peg (dollarization, currency board arrangement) also increased. As a result, countries adopting a soft-peg accounted for only about 20% in 2000, with countries adopting a floating exchange rate system accounting for 70%. In the second half of the 1990s, the number of countries of inflation targeting as an anchor for monetary policy increased. Figure 5 shows frameworks of exchange rate regimes and monetary policies currently adopted by various countries in the world.

However, the currency crisis in Argentina in and after the summer of 2001 raised questions about the “two-corner solutions” argument.

It is true that the currency board system was effective in containing the chronically high inflation rate in Argentina in the 1980s. The country was plagued with a three-digit rise of inflation every year in the 1980s. In particular, the country was hard hit by severe hyperinflation in 1989 and 1990, with the year-to-year increase in consumer prices posting 3,079.5% and 2,370.0%, respectively. However, as Figure 6 clearly illustrates, the introduction of a currency board system in 1991 brought about a dramatic change in Argentina’s price situation. The hyperinflation was rapidly contained and the price increase dropped to 10.7% in 1993 and below 5% in 1994. Moreover, a sharp drop in inflation expectations had favorable impacts on both investment and consumption. Investment became active, as financial activities were normalized and business environments improved. Consumption rose, as sales of consumer durable goods in installment increased.

However, a study of the Argentine economy in the second half of the 1990s shows that, of the various conditions necessary for a currency board system to function properly, the economy lacked two important conditions. One is a balanced budget. If fiscal spending continues to far exceed revenue, it will keep interest rates at a high level as the monetary base is fixed to foreign reserves, resulting in crowding out of private investment activities. In the case of Argentina, while tax revenues remained stagnant, fiscal spending increased due mainly to fiscal transfers to provincial governments and foreign debt repayments, resulting in a sharp increase in fiscal deficits. The other condition is that markets, including labor market, must be sufficiently flexible and prices, including wages, must be sufficiently elastic. Since Argentina was adopting a fixed exchange rate system, an appreciation of the dollar caused by U.S. domestic or other reasons, undercut the competitiveness of Argentine exports. In order to avoid this, it is necessary for domestic prices and domestic wages to decline. The dollar’s appreciation, that is to say, the peso’s appreciation, in the 1990s

decreased the export competitiveness of Argentine industries. The devaluation of the real by Brazil, Argentina's export competitor, made Argentine exports all the more difficult. However, since the labor market in Argentina had downward wage rigidity, labor supply and demand was not adjusted by wages, resulting in ever increasing unemployment. In the autumn of 2001, the unemployment rose to a socially unsustainable level of around 18%.

Worse still, since there is little monetary policy flexibility under a currency board system, if the economy stagnates due to a decline in export competitiveness, it may plunge into a downward spiral, leading to contraction.

The currency board system was effective in containing the hyperinflation in Argentina. But it can be said that the country's insufficient efforts toward fiscal discipline, which is necessary for operation of the currency board system, and its lack of flexible response to the declining export competitiveness resulted in a series of crises beginning in the autumn of 2001. In the end, Argentina gave up the currency board system in January 2002 and shifted to a floating exchange rate system in February 2002 after briefly adopting a dual exchange rate system.

As a currency board system is still being used in Hong Kong, we cannot categorically say that IMF's argument of "two-corner solutions" has completely lost its meaning due to the Argentine crisis. However, its long-term sustainability is now held very much in doubt.

With regard to the floating exchange rate system, there is also an argument calling for using a floating exchange rate system in combination with inflation targeting. It is called "managed floating plus." "Plus" means a set of measures to minimize "currency mismatch" as much as possible, in addition to inflation-targeting monetary policy (Goldstein (2002)). "Currency mismatch" refers to a phenomenon where a sharp depreciation of domestic currency tends to increase non-performing loans sharply as large debts are denominated in dollars or other foreign currencies, leading to a financial crisis, a phenomenon often seen in developing countries. In order to reduce "currency mismatch" as much as possible, such measures as promoting the use of exchange hedge instruments and regulating foreign currency positions held by financial institutions can be taken. The "managed float" we are talking about means a floating system that allows authorities' intervention to cope with rapid and drastic exchange rate fluctuations. The exchange rate regime and monetary policy adopting "managed float plus" that combines such measures and inflation targeting are drawing attention as a currency system to forestall new types of currency crisis in emerging market countries. In fact, as will be described later, countries adopting such a currency

system are increasing.

(5) Arguments about intermediate exchange rate system

On the other hand, there is an argument that an intermediate exchange rate system is more preferable than “two corner solutions.” A drastic exchange rate fluctuation could hamper active investment activities, as it makes it difficult for businesses to forecast and increases uncertainty. There is also an argument that it is better for emerging market countries heavily dependent on exports and imports to have some sort of mechanism to stabilize exchange rates, such as a soft-peg, rather than a floating exchange rate system from the viewpoint of economic growth. There is still another argument that under a floating exchange rate system the exchange rates determined by market forces do not necessarily reflect the real strength of the real economy (misalignment). Some scholars argue that since policymakers have strong fears about wild exchange fluctuations (“fear of float”), even if a floating exchange rate system is officially adopted, they will actually adopt a managed floating system allowing exchange intervention to a considerable extent in order to maintain exchange rates within a target range (Calvo and Reinhart (2000)).

Although intermediate exchange rate systems have the drawback of being vulnerable to market attacks, some people stress the advantages of such systems from the above viewpoints. For instance, some people proposed adopting a BBC (Basket, Bank, Crawl) rule as an intermediate exchange rate system (Williamson (1999)). The proposal is about creating a currency basket (Basket) composed of the dollar, yen, and euro, pegging domestic currency to the basket within a certain width (Band), and readjusting its central rate as needed in response to economic fundamentals (Crawl). As to the width of the band, John Williamson, the advocator of the rule, proposes plus or minus 10~15%.

Since the BBC rule makes it easier to predict exchange rate changes far ahead, economic entities can make accurate investment decisions with certainty. On top of that, since the domestic currency is pegged to a basket of currencies, not to a single currency, even if the currencies other than the dollar, say the yen, depreciated steeply, a similar sharp decline in export competitiveness can be avoided to a certain extent. In order for the BBC rule to gain the confidence of the markets and not to come under attack by speculators, it is important to make appropriate and timely readjustments of the central rate and let it crawl.

(6) Exchange rate regimes after the crisis

We have made a survey of arguments in academic and international organizations about currency systems after the Asian currency and financial crisis. Now, let us take a look at the actual exchange rate regimes of Asian countries. Roughly speaking, they can be divided into three groups (Figure 7).

One group of countries is those that have shifted to a floating exchange rate system or a managed floating system, such as Thailand, South Korea, the Philippines, and Indonesia. These countries have adopted inflation targeting instead of exchange rate as an anchor for monetary policy. The second group of countries is those adopting a system to peg their currencies in one way or another to the dollar, such as a dollar-peg and a currency board system. For instance, Malaysia, China and Hong Kong belong to this group. The third group of countries is those whose economy has been virtually dollarized, despite their official claim of managed floating. Among them are Cambodia and Laos.

Let's look at the characteristics of each group in detail.

(6)-1 Countries adopting floating exchange rate system or managed floating system

According to the IMF's definition, under a managed floating system, authorities intervene in foreign exchange markets as needed but they do not announce beforehand what exchange rate they have in mind and nor commit to such exchange rate. On this point, managed floating systems are completely different from pegs and crawling pegs. According to IMF classification, Thailand and Indonesia fall into this category.

On the other hand, among East Asian countries, South Korea and the Philippines adopted a pure floating exchange system. However, this does not mean they do not intervene in foreign exchange markets at all. They are allowed to intervene, and actually have intervened, in foreign exchange markets when exchange fluctuations are drastic.

For instance, South Korea adopts a floating exchange rate system and the South Korean government and the Bank of Korea (central bank) have made it known that they limit their exchange intervention only to "smoothing operations." Smoothing operation refers to market intervention designed to ease market movements when the market fluctuates wildly or when there is a sharp divergence between bids and offers due to a massive inflow or outflow of capital. Although such intervention is against the movement at the time, it is not designed to change the direction but to slow down the speed of market movements. However, since neither the South Korean government nor the Bank of Korea announce exchange interventions at all, including the intervention

amount, we do not know to what extent the authorities intervene in the market as “smoothing operations.” Incidentally, in South Korea, as in the case of Japan, the central bank (Bank of Korea) actually intervenes in the market under the instruction of the Ministry of Finance and Economy.

A study of actual exchange rate movements in South Korea shows that the dollar-won exchange rate remained considerably stable in 1999 and the first half of 2000 (Figure 8). A regression analysis of the daily and weekly movements of the won and movements of the dollar, yen, and mark (Euro) suggests that the high degree of the same movements of the dollar and the won has remained almost unchanged since before the crisis. This has led some scholars to believe that South Korea has been virtually adopting a dollar-peg policy, instead of a floating exchange rate system, and that the *de jure* exchange rate regime has diverged from the *de facto* exchange rate regime (McKinnon (1999), Calvo and Reinhart (2000)). On the other hand, a measurement of the won’s fluctuations shows that the level of its fluctuations after the crisis is higher than before the crisis. Moreover, if the country had conducted exchange intervention frequently, the fluctuation of the country’s foreign reserves would have become bigger. However, the actual fluctuation of the country’s foreign reserves after the crisis was clearly smaller than before the crisis¹ (Nada-De Simone (2001)). Therefore, it can be said that, though not a complete clean float, South Korea’s exchange policy after the crisis is different from its policy before the crisis and that the country has moved closer to a floating exchange rate system.

It is not necessarily clear if the high degree of same movement of the dollar and the won was due to exchange intervention or it has just happened to be the case due to other reasons. The South Korean economy is especially dependent on trade with the United States and has a strong correlation with the fluctuation of the U.S. economy. Therefore, when the dollar is strong, the won is also likely to be purchased. It is often pointed out that the won also moves in tandem with the Japanese yen and it is known that when the yen weakens, the won also weakens reflecting market concerns that South Korea’s export competitiveness will decline and that this will trigger won selling. We need to examine discretely if the high degree of same movement of the won and the yen is due to the result of monetary authorities’ policies or due to the change in market expectation. As to the effectiveness of exchange intervention on the South Korean foreign exchange market, given the considerable size of the market, where

¹ Incidentally, as to the point that the country’s foreign reserves have increased drastically, it may be the result of the lesson from the crisis and it should not necessarily be viewed as reserves for regular exchange intervention.

about 3 trillion dollars change hands daily, exchange intervention may slow down the speed of exchange movements, but it is doubtful whether it can drastically change the direction of the movements.

In any case, we cannot conclude that a country's exchange system is a soft-peg, not a floating exchange rate system, simply because the country conducts exchange intervention. Aside from arguments in academic circles, actual exchange policies cannot be neatly classified into three groups of hard-peg, soft-peg, and complete float. Rather, we should look where exchange policies stand in a continuum extending from hard-peg to a pure clean float. Many of the advanced countries adopting a floating exchange rate system actually employ a managed float system to some degree or another. From the viewpoint of actually implementing economic policies, it is too naïve an argument to reject all forms of exchange intervention.

From the standpoint of monetary policy, what is more important is not the degree of "dirtiness" of the float, but rather what anchor is used for monetary policy and to which objective the country is committed. For the country adopting inflation targeting as an anchor for monetary policy, it is not inappropriate, theoretically as well as in reality, to intervene in the foreign exchange market to prevent excessive depreciation or appreciation of the country's currency in order to achieve the inflation target². Inflation targeting and managed float or soft-peg are mutually compatible. However, we have to keep in mind that if the purpose of the monetary policy shifts to maintaining exchange rates at a certain level, it would be viewed by the market as a peg and have the opposite effect of destabilizing the foreign exchange markets under attack by speculators. Incidentally, an important characteristic of the countries adopting a floating exchange rate system or a managed float system is that, as will be described later, they adopt inflation targeting as an anchor for monetary policy. Since they adopt a system allowing exchange rate fluctuations, they do not need to keep a huge amount of foreign reserves to prepare for market intervention to maintain exchange rates. However, these countries have increased their foreign exchange reserves after the crisis partly due to the lesson from the currency crisis (Figure 9).

(6)-2 Countries adopting fixed exchange rate system

The second group of countries is those adopting a system to peg their currencies in one way or another to the dollar, such as a dollar peg and a currency board system.

² For instance, although the ECB does not officially adopt an inflation targeting policy, when the Euro depreciated shortly after it was inaugurated in 1999, the European central bank intervened in the foreign exchange market on the ground of maintaining the inflation target of 2%.

For example, Malaysia adopted a policy to regulate capital outflow in 1998 and shifted to a fixed exchange rate system. At present (as of April 2003), the ringgit is fixed at a rate of 3.8 to the dollar.

China (mainland) officially adopted a managed float system. In reality, however, the yuan is virtually fixed to the dollar at a rate of 8.28 to the dollar (1 dollar = 8.2770~8.2880 yuan). The People's Bank of China announces yuan's base rate against the dollar every day based on the weighted average of the exchange rate on the previous trading day and the yuan is allowed to move only within the range of plus or minus 0.3% of the base rate. Therefore, there is no change in the yuan's base rate against the dollar announced every day by the Chinese central bank. Incidentally, China's foreign reserves increased to nearly 300 billion dollars, the second largest next to Japan, as a result of the country's frequent market intervention to maintain the fixed exchange rate amid strong upward pressure on the yuan (Figure 10). China has been under pressure from Japan, the U.S. and some other countries to reevaluate the yuan on the grounds that the yuan's exchange rate is too low in view of the country's strong export competitiveness. But there are also people who think China cannot afford to reevaluate the yuan in view of a host of problems plaguing the Chinese economy as a whole, including wide regional disparities in the country, sluggish performance of state-run corporations and a huge amount of non-performing loans held by the four major banks. In any case, it is generally believed that China will gradually widen the fluctuation band.

Hong Kong and Brunei adopt a currency board system. Of particular note is how Hong Kong's currency board system will change under the framework of "one country two systems," as China gradually shifts its currency system.

(6)-3 Countries with virtually dollarized economy

The third group of countries are those whose economy has been virtually dollarized, despite of their official claim of managed floating. Among them are Cambodia, Laos and Myanmar. In these countries, domestic economic and financial transactions are done by means of dollars and people save their money in dollars. In fact, the three functions of currency – "expression of value," "means of transactions," and "hoarding of value" - are performed by the dollar. This situation is called virtual "dollarization" of the economy. Incidentally, these countries are completely different from those countries that have voluntarily renounced monetary sovereignty. In other words, although their economies are virtually dollarized, they issue their own currencies (riel in Cambodia, kip in Laos) and maintain monetary sovereignty. However, since the

amount of circulating currency and the confidence in their value are extremely low compared with the dollar, the effectiveness of these countries' monetary policies is limited.

These countries have officially adopted a managed float system. In reality, however, there is an official rate and a market rate and there is a wide divergence between them. In Cambodia, for instance, the Phnom Penh government reintroduced riel in 1980 after the collapse of the Pol Pot regime but most of the commercial transactions in the 1980s were barter transactions. The dollarization of the Cambodian economy advanced rapidly as many refugees returned home and more than 20,000 UN workers stayed in the country following the conclusion of the Paris Peace Agreements in 1992 and the resumption of activities by the United Nations Transitional Authority in Cambodia (UNTAC) in 1992. UNTAC's total operating expenses of 2 billion dollars accounted for nearly 80% of Cambodia's GDP in those days. As a result, resident foreign currency deposits accounted for nearly 70% of the country's money supply (M2) as of the end of 2001. According to an estimate made by the IMF, if the quantity of dollar deposits in circulation is taken into account, the country's dollarization rate stood at 93~95% in and after 1995, indicating the virtual dollarization of the economy.

The ratio of foreign currency deposits is also extremely high in Laos, accounting for nearly 80% of the country's money supply. Although the influence of Thai baht on the Laotian economy has decreased after the Asian currency crisis, it is still widely used in Laos. Except for payment for daily necessities and utilities, which is made in the domestic currency of kip, payment is mostly made in baht or dollar.

As just described, in the countries with advanced dollarization of economy, domestic currencies are used only in people's daily shopping and dollars or other currencies of neighboring countries are used for savings and purchase of durable consumer goods. In particular, the dollar is used in purchases of high-priced items and assets, such as land and automobiles. Under these circumstances, monetary policy is effective only in the area where the domestic currency is in circulation, and there is virtually no independence in monetary policy. For these countries, obtaining the confidence in their currencies is the top-priority issue.

(7) Inflation targeting as an anchor for monetary policy

As just described, a study of the currency systems of East Asian countries after the Asian currency crisis shows that these countries are roughly classified into three groups; countries that have shifted to a floating exchange rate system, countries that have continued virtual dollar-peg, and countries whose economies have virtually been

dollarized.

The latter two groups of countries can be further divided into those countries that have virtually lost the independence of their monetary policy (Hong Kong and Brunei with currency board, and Cambodia and Laos with virtual dollarization of their economy) and those countries that have maintained the independence of their monetary policy by restricting capital flows (mainland China).

Of the former group of countries adopting a floating exchange rate system or a managed floating system, Thailand, South Korea, the Philippines, and Indonesia have adopted inflation targeting as the framework of their monetary policy. These countries had been using the maintenance of exchange rate at a certain level as the anchor for their monetary policy. Since they shifted to a floating exchange rate system, they needed a new anchor and adopted inflation targeting based on the experiences of advanced countries.

Advanced countries introduced inflation targeting as their monetary policy one after another in the first half of the 1990s. New Zealand was the first country that explicitly adopted inflation targeting as part of its economic structural reform. Canada followed in 1991, Britain in 1992, Sweden in 1993, and Australia and Spain (until the inauguration of the EMU in 1999) in 1994.

In many of these countries, inflation targeting has been positively evaluated as contributing to sustainable economic growth as it stabilizes price movements. In the second half of the 1990s, emerging market countries adopting inflation targeting increased. Figure 11 is a list of countries adopting inflation targeting.

What is inflation targeting in the first place? It does not mean simply setting an inflation target. According to studies made so far, inflation targeting is a framework for monetary policy that generally meets the following five conditions; a) official announcement of numerical targets for the inflation rate, b) explicit acknowledgment that stable inflation is monetary policy's ultimate goal and that economic growth and employment stability are subordinate goals, c) forward-looking monetary policy management by taking all economic indicators concerning price stability into account in a comprehensive manner, d) explanation to market participants and the public in a transparent manner about the contents of monetary policy decisions and the grounds on which the decisions were based, and e) the central bank's accountability for attaining inflation targeting objectives (Bernanke et al, 1999).

Important points are that the central bank musters up monetary policy instruments in order to achieve the target of stabilizing prices independent of the government and that, in order to secure this, the central bank is accountable to the public. Simply

announcing an inflation target is not inflation targeting.

Behind the spread of inflation targeting are macroeconomics arguments in the second half of the 1970s and 1980s. According to the arguments, if we assume that each economic entity will form expectations rationally, discretionary policy loses its effectiveness and that implementing monetary policy based on certain policy rules would be more effective in decreasing the amplitude of economic fluctuations. It has also been theoretically demonstrated by incorporating the fruits of game theories into macroeconomics that since the relations between government/central bank and each economic entity are a kind of repeated games, it is important for stable economic development to establish credibility and reputation for policies implemented by the government and the central bank by repeatedly committing to certain policies and realizing them.

Inflation targeting is a policy instrument born out of the result of the theoretical development of macroeconomics. Its main purpose is to attain stable development of the economy through the establishment of credibility and reputation of the central bank by setting inflation targets and implementing monetary policies committed to the achievement of the targets. Since the central bank is allowed to have certain flexibility within the scope of achieving the inflation target, inflation targeting is clearly different from monetary policy implemented under strict rules. Central banks adopting inflation targeting make monetary policy decisions based on overall judgment of economy by keeping constant watch not only on immediate price movements but also on trends of demand and supply factors in domestic economy, exchange rate movements and overall movement of the international economy, and by keeping their immediate and future impacts on inflation in mind. It is also necessary to take forward-looking approach by taking into account the time lag of the effect of monetary policies on the real economy and prices. It should be viewed as one of the frameworks of “constrained discretion.”

Since emerging market countries have different economic structures from those of advanced countries, they have to carry out monetary policies under different circumstances, including different depth of financial market. In order for these countries to smoothly implement inflation targeting, it is necessary to make various operational devices. Among Asian countries, South Korea, Thailand, Indonesia and the Philippines adopted inflation targeting as an anchor for monetary policy after shifting to a floating exchange rate system after the currency and financial crisis. As can be seen from the examples of South Korea and Thailand (Figure 12 and Figure 13), inflation targeting has contributed to stabilizing the monetary and economic

environment after the currency crisis. However, their performance varies from one country to another. In order to make inflation targeting effective, it is vital for them to address problems involved in designing inflation targets and operating the system (for detail see Ito and Hayashi (2003)).

Let's examine South Korea's inflation targeting in detail.

After the Asian currency crisis of 1997, South Korea revised the Bank of Korea Act at the suggestion of the IMF and became the first Asian country to introduce inflation targeting in 1998. South Korea, hard hit by the currency and financial crisis in November 1997, abolished its exchange rate band and shifted to a complete floating exchange rate system in December of the same year.

As to monetary policy, the country implemented a stringent monetary policy, as inflation control was included in the economic program worked out in connection with the conclusion of a standby credit line with the IMF. At the same time the Bank of Korea Act was revised (promulgated on December 31, 1997) to drastically change the conventional framework of monetary policy and the revised law was enforced in April 1998. The revision of the law was important in two respects. Firstly, the Bank of Korea was given independence from the government. Secondly, the adoption of inflation targeting was enshrined into law.

As to the independence of the bank, Article 3 of the revised Bank of Korea Act stipulates, "the monetary and credit policies of the Bank of Korea shall be formulated neutrally and implemented autonomously, and the independence of the Bank of Korea shall be respected." Formerly, South Korea's monetary policies had been established under the direction of the Ministry of Finance and Economy, as the Minister of Finance and Economy chaired the Monetary Policy Committee, the monetary policy decision-making organ. But under the revised Bank of Korea Act, the governor of the bank chairs the Monetary Policy Committee in the same way as in central banks of advanced countries.

As to the introduction of inflation targeting, Article 1 of the Bank of Korea Act stipulates that the purpose of the law is "to establish the Bank of Korea and to contribute to the sound development of the national economy by pursuing price stability through the formulation and implementation of efficient monetary and credit policies. The law also says that the Bank of Korea "shall set a price stability target every year in consultation with the Government(Article 6-1).

In this way, South Korea has adopted inflation targeting as the framework to govern monetary policy after it has shifted to a floating exchange rate system following the currency crisis.

Of particular note is that inflation targeting was adopted at the same time the central bank was given independence. It can be said that the legal stipulation of inflation targeting has secured Bank of Korea's independence as the central bank. That is to say, it is not sufficient to give independence only for form's sake for the actual operation of monetary policy. Since the annual budget of the Bank of Korea is provided by the government, just as in the case of the central banks of other countries, unless constraints are imposed by some sort of framework, it is virtually impossible to completely eliminate fiscal authorities' influence on monetary policy. Central banks of emerging market countries often come under covert political pressure. In order to eliminate such influence absolutely, it is important to make the monetary policy decision-making process transparent and as public as much as possible. Since inflation targeting quantifies monetary policy objectives and therefore the objectives are clear, it facilitates making monetary policy operations transparent. In fact, thanks to the introduction of inflation targeting, the transparency of South Korea's monetary policy has improved dramatically.

In the case of South Korea, the Bank of Korea, based on the above revised Bank of Korea Act, sets an annual inflation target at the end of the preceding year in consultation with the government (the Ministry of Finance and Economy), and the Monetary Policy Committee decides specific monetary policies to achieve the target.

The inflation target set by the Bank of Korea for each year shows that the central bank has been setting the target on a trial-and-error basis. For the years 1998 and 1999, the bank set the average annual consumer price inflation target at 9% plus or minus 1% (1998) and 3% plus or minus 1% (1999), respectively. However, the actual average annual consumer price inflation fell far below the target, standing at 7.5% for 1998 and 0.8% for 1999.

Since consumer price inflation is unexpectedly susceptible to certain items, such as food prices, the Bank of Korea decided to use core inflation rate as its inflation target, starting in 2000. The bank defined core inflation as "CPI after stripping out non-cereal agricultural products and petroleum-based products." The bank set the average annual core inflation target at 2.5% plus or minus 1% for 2000 and at 3% plus or minus 1% for 2001 and 2002. The bank achieved its target for 2000 as the actual core inflation came to 1.8%, but the target for 2001 was 0.2% higher than the actual core inflation rate of 4.2%. The bank attributed the failure to achieve the target to hikes of public utility charges and to the fact that the bank maintained easy monetary policy to cope with economic recession too long. The governor of the Bank of Korea apologized for this at a press conference. Incidentally, the IMF in its report on the conclusion of 2001

Article IV Consultation with Korea in February 2002 commended the Bank of Korea (BOK) for successfully balancing the need to cement the credibility of the inflation targeting framework and the need to support the weak economy. Designing an appropriate inflation target will remain an important issue. The Bank of Korea at the end of every year sets an inflation target for the following one year period. However, given the time lag of the effect of monetary policy, the target period is too short. This point should also be reviewed in the future.

There is also a problem that it is not an easy task to take accurate monetary policy instruments in the environment where the transmission mechanism of monetary policy is unstable and difficult to understand amid the declining financial intermediary function due to the problem of non-performing loans, which will be described later.

Another point to keep in mind with regard to South Korea's inflation targeting is its relevance to asset prices. This problem is not limited to South Korea but is common to all countries adopting inflation targeting. But it is particularly important in emerging market countries where a sudden rise in asset prices could happen due to massive capital inflows from abroad. South Korea once got into a bubble economic situation caused by sharp rises in stock and real estate prices shortly before the currency crisis. However, asset price is not included in the targeted inflation. There are indeed many problems that need further research, including response to asset price bubbles and timing of preventive tightening measures.

Since its introduction in 1998, South Korea's inflation targeting has played a certain role in stabilizing the country's economy. In particular, the introduction of inflation targeting has secured the independence of the Bank of Korea in monetary policy and drastically enhanced the transparency of monetary policy.

At the same time, however, there is considerable room for improvement in order to put inflation targeting firmly in place and to further enhance its effective operation. In particular, it is vital to review the designing of an inflation targeting in order to increase its credibility. As for response to such problems as a decline of the financial intermediary function and a rise of asset prices, it is necessary to study how to cope with such problems within the framework of inflation targeting based on deeper analyses.

With regard to inflation targeting in emerging market countries, studies have yet to be sufficiently accumulated and a consensus has yet to be formed in academic circles. Rather, the reality is ahead of them. Based on their experience of the currency crisis caused by sudden capital flows, an increasing number of countries adopt inflation targeting as an anchor for monetary policy when they shift to a floating exchange rate

system.

If I am allowed to attempt an overview analysis of arguments in the academic community concerning inflation targeting in emerging market countries, there are two groups of scholars, with one group taking a positive view and the other taking a skeptical view.

Scholars taking the former view say, after weight merits and demerits of inflation targeting, that inflation targeting may not be a cure-all for emerging market countries but conclude that it is a very useful monetary policy for many of the countries, citing a successful example of Chile (for example, Mishkin (2000)). On the other hand, scholars taking a skeptical view say that in light of the facts that the economies of emerging market countries are susceptible to exchange rate fluctuations, that it is difficult to forecast inflation rates of these countries, and that most of their debts are denominated in dollars, it is virtually impossible for them to adopt a framework of monetary policy that may leave the depreciation of domestic currency unchecked. Therefore, they contend that the number of emerging market countries that can adopt inflation targeting is limited to only a few countries that are free from the balance sheet problem of financial institutions and the problem of central bank credibility (for example, Eichengreen (2002)).

3. Domestic Financial Systems of East Asian Countries

As described above, the Asian currency crisis was not simply a sharp and drastic depreciation of the currencies of the affected countries. It was a financial crisis that had serious impacts on the affected countries' economy as a whole. Behind this lies the problem of fragile domestic financial systems.

(1) Structural problems of domestic financial systems

In the mid-1990s, economies of some of the East Asian countries took on the features of over-heated business activities boosted by excessive domestic demand against the background of investors' strong confidence in high economic growth and easy availability of capital. As a result, this caused asset market bubbles and a huge amount of current account deficits. The deficits were financed by massive inflows of short-term capital from advanced countries. Since the currencies of these countries were virtually pegged to the dollar, interest rates were kept at high levels and this further invited capital inflows. In addition, the private sector increased borrowing of foreign currencies, resulting in an increase of short-term, risk-unhedged foreign debts.

Thailand, in particular, saw a sharp increase in the inflow of foreign capital, as the country allowed non-residents to hold baht and established the Bangkok International Banking Facilities (BIBF) in 1993 amid deregulation and liberalization of capital and exchange transactions in the 1990s. However, due to such problems as inadequate financial supervision, corporate governance and insufficient financial intermediation between foreign currencies and domestic savings, inefficient investment increased and surplus funds were directed to the purchase of real estate, resulting in creating an asset bubble. These structural problems of domestic financial system had been obscured by high economic growth and remained vulnerable to a sudden turnaround of market expectation that could be triggered by a minor event. In the case of Thailand, it was clear during the dollar's upward adjustment that the country's exports were slowing down due to the appreciation of the baht against foreign currencies other than the dollar. Moreover, the question about the financial strength of a Thai finance company came to the surface in the spring of 1997. South Korea's export competitiveness also declined due to the appreciation of the won and debt problems of some South Korean firms came to the surface. When we study the Asian currency and financial crisis, it is important to keep in mind that these phenomena that were seen as temporary and limited revealed the fragile domestic financial structure and triggered a sudden turnaround of market expectation, leading to drastic outflows of capital and currency depreciation.

In the rest of this section, I would like to examine the efforts of the countries in the region to stabilize their financial systems, including disposal of non-performing loans, and describe a new international trend toward stricter financial supervision after the Asian currency and financial crisis, measures to expand and improve direct financing, such as fostering bond markets, and establishment of a system capable of coping with foreign currency risk.

(2) Financial system stabilization measures

The countries hit by the crisis implemented various measures to stabilize their financial system. The measures can be classified into four groups; a) liquidity support for banks in question, b) deposit protection measures through a deposit insurance corporation to prevent systemic risk arising from the spread of credit uneasiness, c) boosting capital base through capital injection from public funds, and d) prompt disposal of non-performing loans by a third-party organization (Resolution and Collection Company in the case of Japan and asset management companies (AMC) in the case of Asian countries).

The four countries where the financial crisis was particularly serious (Thailand, South Korea, Malaysia, and Indonesia) injected public funds into financial institutions and promoted the consolidation of financial institutions by closing or suspending operations of banks with doubtful chances of survival, temporarily nationalizing them or merging them. They also established an asset management company to purchase non-performing loans – Thai Asset Management Corporation (TAMC) in Thailand, Danaharta in Malaysia, Korea Asset Management Company (KAMCO) in South Korea, and Indonesian Bank Restructuring Agency (IBRA) in Indonesia. Although the system of the companies or organizations varies from one country to another, they purchase non-performing loans at about market prices and dispose of the assets selling by tender or by means of securitization. At present, they have disposed of about 50~70% of the assets, except for Indonesia which is falling behind the other countries.

To look at Thai examples in more detail, finance companies (non-banks) had been suffering from business difficulties even before the currency crisis and the Thai government had been providing liquidity support to them. After the crisis, the government improved its classification standard for non-performing loans to conform to the international standard (revising the definition of non-performing loans as those in arrears for three months or longer, instead of twelve months or longer) and strengthened write-off standards. It also nationalized commercial banks, injected capital and reorganized them. As a result, the number of commercial banks has decreased to thirteen from fifteen before the crisis.

Thai commercial banks' non-performing loan ratio hit an all-time high of 46.8% in 1999 partly due to the introduction of the new classification standard. When it comes to local commercial banks' ratio, it stood above 50%. Later, non-performing loans decreased dramatically due to agreements on debt restructuring as well as transfer of non-performing loans to the TAMC and write-offs. As a result, the non-performing loan ratio dropped to 19.2% as of the end of March 2001. As to capital adequacy ratio, the Thai government requires local banks to maintain capital adequacy ratio of 8.5%, that is higher than the BIS standard, and the ratio stood at 12.01% as of December 2000. In this way, it can be said that Thailand's series of financial system stabilization measures, including disposal of non-performing loans, have been almost completed.

However, financial system stabilization requires cost. According to an IMF estimate, the financial burden of reconstructing the Thai financial system, including the cost to dispose of the non-performing loans transferred to the TAMC and capital injection into nationalized banks, is expected to amount to 2,172 billion baht (accounting for 32% of nominal GDP) by 2005. Although price inflation in Thailand

remains stable thanks to the introduction of inflation targeting (Figure 13), Thailand as well as Taiwan, Hong Kong and other Asian countries have begun to worry about price fall (deflation). Should the country slip into deflation, we cannot rule out the possibility of the problem of non-performing loans arising again.

Moreover, Thai commercial banks have become cautious about lending to private corporations, resulting in a sharp drop in their deposit-loan ratio from the level before the currency crisis. Therefore, while the ratio of loans to total assets has dropped, the ratio of government bond holdings to total assets has been on a rising trend. A similar trend is seen in South Korea and Indonesia. The fact that the financial intermediary function has been decreasing in these highly indirect finance-dependent countries is a cause for concern in the future.

(3) International trends in financial supervision

After the Asian currency and financial crisis, there was a growing awareness in the international community of the need for proper banking supervision and regulation in order to forestall the kind of financial system instability caused by the crisis and to minimize the effect of such a crisis. Based on this recognition, the IMF and the World Bank jointly began monitoring the international standardization and observance of standards to maintain the soundness of financial systems.

Specifically, it is the Financial Sector Assessment Program (FSAP) introduced in 1999. Under FSAP, the IMF and the World Bank assess the observance of banking supervision and regulations implemented by each country's financial supervisory authorities, promote observance of international standards, and recommend the best practices. This is part of IMF's Reports on the Observance of Standards and Codes (ROSC) which is designed to assess the extent to which member countries observe internationally recognized standards and codes, such as banking supervision, fiscal transparency, and data dissemination.

(4) Development of bond markets in Asian countries

It has been pointed out that one of the causes of the fragility of Asian financial systems is that the capital market is immature.

Since financing methods other than bank lending, that is to say, the channel of direct financing is very limited in the Asian countries that experienced the crisis, the malfunction of the banking system had enormous impact on the real economy of these countries. Therefore, expanding and improving the means of direct financing, such as development of stock markets and bond markets, is an important issue in order to

avoid a financial crisis and minimize damage in the medium and long terms. Figure 14 shows stock market capitalization/GDP ratio and banks' private lending outstanding/GDP ratio. It shows that South Korea, Thailand, Malaysia and Indonesia depend heavily on indirect financing. Direct financing and indirect financing have their respective merits and demerits. However, a financial system heavily biased toward indirect financing is very vulnerable to the destabilization of banking system and malfunction of banks' intermediary function. Therefore, if the destabilization or malfunction occurs, it will have a big impact on the real economy.

Savings rates in East Asian countries are high. But, since their capital markets are immature, the savings deposited at local financial institutions flow back to Asia via international financial centers in the United States and Europe. Therefore, Asian firms and financial institutions are burdened with the double mismatch risk of "term" and "currency," in that they make long-term investment in local currencies, while, for their short-term fund needs, they depend on foreign currency-denominated loans from U.S. and European financial institutions whose knowledge about Asian economic situations is not necessarily sufficient. It can be said that the Asian currency crisis was the manifestation of this risk. Therefore, it is important to develop bond markets in Asia so that private corporations in the region can use savings within the region effectively without being burdened with currency and term mismatches. The establishment of bond markets in the region would also be effective in ensuring a stable supply of long-term capital in Asia. These efforts are also expected to contribute to Asian financial and capital market stability, including currency stability, in the long run.

Based on this awareness, Asian countries have come to recognize the need to develop bond markets in Asian countries and an intra-regional bond market in Asia. To this end, Japan proposed the "Asian Bond Markets Initiative" at a meeting of ASEAN+3 (Japan, China, South Korea) in March 2003. This is a comprehensive proposal encompassing various problems to foster bond markets in Asia and is scheduled to be studied within the framework of ASEAN+3 finance ministers' meetings. To be more precise, first of all, measures would be implemented to promote the issuance of bonds by each government or government organization, big corporations, and medium- and small-sized companies. In countries where a bond market has yet to be developed, the government or government organizations actively issue bonds on a regular basis in order to supplement private corporate bond issuance in terms of issue volume and maturity and to provide a benchmark. It is also being studied to have the government or government organizations raise funds on behalf of private firms that are yet to have access to bond markets. Against the background of

active intra-regional economic interdependence and direct investment, a study is also being made to create asset-backed securities based on loans to corporations and bonds issued by corporations, so that private corporations can issue bonds in the country they invested in to raise funds necessary for direct investment or for support of local suppliers.

As to currency in which bonds are to be denominated, the issuance of bonds in local currencies or denominated in a basket of intra-regional currencies are now under consideration from the standpoint of promoting fund-raising without currency mismatch. This is also an idea of international organizations, such as the Asian Development Bank, the World Bank, and the International Finance Corporation, and government organizations of the countries in the region issuing local currency-denominated bonds. For multinational corporations and international institutional investors, bonds denominated in a basket of local currencies offer an advantageous fund-raising means in terms of lessening exchange rate risk. The countries in the region are also considering putting their domestic currency-denominated government bonds together and issuing the bonds denominated in a basket of local currencies. The issuance of such bonds is eventually expected to lead to a common currency basket or so-called Asian currency unit in the future.

If international organizations, such as the Asian Development Bank, or government organizations, such as the Japan Bank for International Cooperation, guarantee private corporate bond issuance and sovereign debt issuance, it would promote bond issuance in Asia. Another proposal is to establish a new international organization, like an Asian guarantee organization, by international organizations and governments to provide a guarantee against bond issuance.

In addition, in order to develop bond markets, it is important to establish basic software infrastructure, such as corporate accounting standards, disclosure rules, settlement system, proper rating agencies, and transaction regulations. It is therefore necessary to promote technical cooperation within the framework of ASEAN+3 to establish such infrastructure.

(5) Spread and establishment of currency hedge instruments

It is said that private corporations and financial institutions in the Asian countries that were hit by the currency crisis had only a superficial understanding of the need for exchange risk hedge, as their currencies were virtually pegged to the dollar. In fact, there was little incentive for them to purchase exchange risk hedge instruments, and such instruments were not sufficiently available. It was for this reason that the debt

burdens caused by the mismatch of currencies increased during the crisis, bringing a serious impact on the economy as a whole.

Following the shift to a floating exchange rate system after the currency crisis, the private corporations began to recognize the importance of hedging against exchange risks and an increasing number of them began to purchase hedge instruments. In South Korea, the government conducted a campaign appealing for the need for exchange risk hedges. Some other countries established a financial supervision system to check if foreign currency-denominated debts are hedged against exchange risks. Thanks to these policy efforts, the number of private corporations hedging against exchange risks has increased drastically and the response capabilities of the economy as a whole to exchange fluctuations have been strengthened.

4. Regional Financial Cooperation in East Asia

Regional financial cooperation in East Asia did exist even before the currency and financial crisis, such as Executives' Meeting of East-Asia Pacific Central Banks (EMEAP)³, a forum of central banks and monetary authorities in the East Asia and Pacific region established in 1991. However, it was the Asian currency and financial crisis that fostered a strong awareness of the need for regional financial cooperation.

After the crisis, regional financial cooperation in Asia has been promoted in various forms, such as the "New Miyazawa Initiative" incorporating a comprehensive support measures, including a 30 billion dollar financial support scheme, announced in October 1998, and the recent initiative to develop bond markets in Asia (as described above). In the rest of this paper, allow me to introduce recent movements to strengthen economic policy dialogue in the region, centering on the Chiang Mai Initiative and ASEAN+3.

(1) Chiang Mai Initiative

When the Asian currency and financial crisis broke out in 1997, an idea was floated to establish an "Asian Monetary Fund" among East Asian countries to prevent a currency crisis and supplement IMF support measures at a time of crisis. However, this

³ This is a forum of central banks that grew out of an initiative by the Bank of Japan in 1991. It comprises the central banks and monetary authorities of Australia, China, Hong Kong, Indonesia, South Korea, Malaysia, New Zealand, the Philippines, Singapore, Thailand, and Japan. Representatives from the 11 countries exchange views on the management of foreign exchange reserves and settlement systems as well as on financial and economic situations, and policy measures.

idea was not realized, as it came under criticism. Some people argued that crisis-ridden countries may try to avoid IMF conditionality. Some others argued that the proposed AMF may undermine IMF functions and cause moral hazard.

In November 1997, finance and central bank deputies of 14 countries agreed on “a new framework for enhanced Asian regional cooperation to promote financial stability (the so-called Manila Framework)” to conduct intra-regional surveillance to supplement IMF surveillance and to establish bilateral support frameworks based on IMF economic adjustment programs. The ASEAN+3 Summit Meeting held in Manila in November, 1999 agreed on the need “to strengthen the self-help and support mechanism in East Asia.” Based on the agreement, finance ministers of ASEAN+3 at their meeting held in Chiang Mai, Thailand in May 2000 agreed to establish a network of bilateral swap agreements through the “Chiang Mai Initiative.”

Under a currency swap arrangement, supporting countries provide countries in need of foreign currency liquidity with hard currencies, such as the dollar and the yen, so that monetary authorities can replenish their foreign reserves for use in market intervention to stabilize their own currencies. Before the Chiang Mai agreement, some of the ASEAN countries had currency swap arrangements, but the Chiang Mai Initiative is designed to establish stronger cooperative relations among the monetary authorities concerned by expanding the swap arrangement to all ASEAN countries and having bilateral currency swap arrangements concluded not only among ASEAN countries but also among Japan, China and South Korea.

Japan has so far concluded a bilateral swap arrangement with six countries (South Korea, Thailand, the Philippines, Malaysia, China, and Indonesia) based on the Chiang Mai Initiative (Figure 15). The Japan-South Korea and Japan-Malaysia swap arrangements are added to the bilateral swap arrangement based on the New Miyazawa Initiative (2.5 billion dollars, respectively, with upward limit of 5 billion dollars). Japan’s swap arrangements with South Korea, Thailand, the Philippines, Malaysia and Indonesia are local currency-dollar swap arrangements, while Japan-China swap arrangement is for a yen-yuan swap arrangement (equivalent to up to 3 billion dollars). In addition to the above six countries, Japan is also negotiating with Singapore for a similar arrangement. In this way, a system to mutually provide dollar or yen funds for use in market intervention to stabilize currency is being set up by establishing a network of bilateral swap arrangements totaling more than 30 billion dollars.

(2) Review of economic situations and strengthening of policy dialogues

In order to ensure effective and smooth operations of the regional financial

arrangements, it is necessary for the countries involved to have a correct understanding of the macro-economic situation within the region through close policy dialogue. From this standpoint, the finance ministers of ASEAN+3 at their meeting in May 2001 established a working-level study group and, after discussions, agreed to hold a policy dialogue twice a year. Based on the agreement, a policy dialogue was held in Yangon, Myanmar in April 2002 and in Tokyo in November 2002. In May 2002, the finance ministers of ASEAN+3 at their meeting held in Shanghai explained and exchanged views on their own country's economic situations and policy issues.

(3) Possibility of cooperation in currency system

As was described earlier, since the virtual dollar-peg of East Asian countries' currencies was the cause of the Asian currency and financial crisis and in view of rising intra-regional mutual dependence for trade and investment, there is an argument that a study should be made on introducing a single Asian currency, like the euro, in place of the current diversified exchange rate regimes.

Japan promoted the "Kobe Research Project" to study monetary and exchange rate cooperation at an ASEM Finance Ministers' Meeting and the results of the study were reported to the 4th ASEM Finance Ministers' Meeting held in Copenhagen in July 2002. The main proposal included in the report was that "a currency basket aimed at stabilizing the currencies of emerging East Asia vis-à-vis a basket of major currencies is desirable." If such a currency basket system is further promoted, it would lead to the adoption of a common currency basket and then to the introduction of a single currency.

However, as the example of the euro clearly shows, there is a long way to go before Asia can have a single currency. In the case of the euro, it took nearly half a century from the time when the euro was first proposed after the World War II to the time when the European Economic and Monetary Union (EMU) was established in 1999 and when the euro was actually circulated in 2002. There are several points that must be kept in mind from the standpoints of economics and economic policy management. First, since a single monetary policy must be implemented within the single currency zone, business cycles must coincide within the zone as much as possible. Therefore, the economic conditions of each country within the zone must be to a certain extent synchronized with each other. Second, since currency unification means fixing domestic currency to a new single currency at a certain point in time, adjustment cannot be made after it was fixed. If currencies are not unified, the differences in economic development and growth can be adjusted through exchange rate fluctuations.

However, under a single currency system, the imbalance is likely to be left unadjusted. Therefore, the economies of the countries in the single currency zone must be homogeneous to a certain extent. Third, coordination in fiscal policy is necessary. If one country suffers a huge amount of fiscal deficits and its public debts accumulate, it will have far-reaching impacts on other countries in the same currency zone, such as a rise in intra-regional interest rates. Therefore, it is necessary to tie up each country's fiscal policy management, like the Maastricht convergence criteria for entry in the euro and the Growth and Stability Pact setting the upper limit on the ratio of fiscal deficits/government debts to GDP. In currency unification, a mechanism to achieve and maintain economic convergence and economic policy is necessary. Fourth, since maintaining the convergence means abandonment of autonomy of national monetary and fiscal policies, there must be strong political support and national consensus with regard to the introduction of a single currency. We should not forget the fact that the euro was inaugurated under the strong leadership of two big powers in Europe – Germany and France.

In the case of countries in East Asia, their economic interdependence through trade and investment is high and the synchronicity of their macroeconomic situations is also high, but when it comes to political support and leadership, it cannot be said that the time is ripe. Moreover, when China is continuing high economic growth and the economic landscape of Asia is undergoing a drastic change, it is not in the best interest of Japan, ASEAN countries and South Korea to fix their currencies to a single currency at exchange rates determined at this stage. In order to support a unified currency and monetary policy, there must be a full mutual understanding of surveillance of macroeconomic situations, economic structure and economic policy. But, as was described above, these efforts are still in their early stages.

There is a good possibility of cooperation toward a single Asian currency in the medium and long run. As a last resort to prevent a currency crisis, unifying Asian currencies is an important issue for the development of East Asian economy. However, given the situations described above, it is more important to make steady efforts to deepen mutual understanding of economies through such means as intra-regional macroeconomic surveillance, rather than to rush into things. As to the prevention of the recurrence of a currency crisis, it is important to enhance the support network based on the framework of the Chiang Mai Initiative.

References cited

- Hamada Koichi; "Asian Crisis: Its Outbreak and Adjustment Process" JBICI Review, Japan Bank for International Cooperation, January 2000.
- Hayashi Tomoko; "Inflation Targeting and Exchange Policies of Asian Countries" JBICI Review, Japan Bank for International Cooperation, April 2002.
- Bernanke, Ben S.; Laubach, Thomas; Mishkin, Frederic S. and Posen, Adam S. Inflation Targeting: Lessons from the International Experience. Princeton, NJ: Princeton University Press, 1999.
- Calvo, Guillermo A. and Reinhart, Carmen M., "Fear of Floating", NBER Working Paper No.7993, November 2000.
- Eichengreen, Barry, "Can Emerging Markets Float? Should They Inflation Target?", Banco Central do Brazil Working Paper, February 2002.
- Frankel, Jeffrey A., and Shang-Jin Wei, "Yen Bloc or Dollar Bloc: Exchange Rate Policies of the East Asian Economies," in Macroeconomic Linkages: Savings, Exchange Rates and Capital Flows edited by Takatoshi Ito and Anne Krueger, University of Chicago Press, 1994.
- Goldstein, Morris, 2002, Managed Floating Plus, Institute for International Economics, March 2002.
- International Monetary Fund (IMF), World Economic Outlook 2001 Spring.
- Ito, Takatoshi, and Tomoko Hayashi, *Inflation Targeting in Asia*, Hong Kong Institute for Monetary Research Occasional Paper No.1, March 2004.
- McKinnon, Ronald I., "After the Crisis, the East Asian Dollar Standard Resurrected: An Interpretation of High-Frequency Exchange-Rate Pegging", Stanford University Working Paper, August 2000.
- Mishkin, Frederic S., "Inflation Targeting in Emerging-Market Countries", American Economic Review, May 2000, 90(2).
- Nadal-De Simone, Francisco, "An Investigation of Output Variance Before and During Inflation Targeting", IMF Working Paper, December 2001.
- Williamson, John, Exchange Rate Regimes for Emerging Markets: Reviving the Intermediate Option, Institute for International Economics, September 2000.
- World Bank, The East Asian Miracle: Economic Growth and Public Policy, Oxford University Press 1993.