

Foreign Exchange Market Liberalization Policies in Korea: Past Assessment and Future Options*

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This paper assesses the policy mistakes during the process of the financial and exchange market liberalization in Korea and searches for the future options. In retrospect, the Korean government seemed to be only vaguely aware of the risk of the financial liberalization, because it put the financial liberalization plan in action cautiously. But believing that, it could still manage its economy in the increasingly integrated world, government stuck to the rigid exchange rate policies, and arbitrarily deregulated and regulated the inflow of the foreign capital. The mismanagement of economic policies is the real cause of the crisis, not the financial liberalization itself. Confronted with the crisis, government implemented the drastic liberalization measure in a very short period of time, adopting the free-floating exchange rate system and lifting the restrictions on the capital account transactions. But this is clearly not the permanent solution. In the world of financial globalization, Korea will become more and more vulnerable to the capital flows, and the financial crises will continue to occur. Against large capital movements, one strategy to the small country like Korea can rely on is to join the regional monetary bloc. When it come to the regional monetary cooperation, it seems that the target zone system with flexible emergency loan facility and regional lender of last resort is most desirable.

1. INTRODUCTION

There is no denying that financial and foreign exchange market liberalization enhances market efficiency and economic welfare. But the benefit does not come without cost. The cost is increasing instability in the economy and this risk is especially high when government authorities are incapable of managing their economies appropriately in an increasingly integrated world. The currency crisis that swept through East Asia in 1997 is clearly such a case. For instance, the Korean economy was left more exposed and more vulnerable to external disturbances because of inappropriate regulatory policies concerning capital flows during the financial and foreign exchange market liberalization process. Further, the collapse of the Korean won was triggered by a mismanaged exchange rate policy. It is not financial liberalization itself but rather policy mistakes that can be seen as the real culprit for the crisis. In order to minimize costs related to liberalization and prevent a recurrence of currency crisis, it is therefore important, first to clarify the risks of financial liberalization and then to assess possible policy constraints and mistakes. This analysis will also help explain why some of the East Asian countries, which were at the frontier of the liberalization and most benefited from capital inflows, were so severely hit by the 1977 currency crisis.

This paper tries to assess the policy mistakes made during the process of financial and exchange market liberalization in Korea, especially during the currency crisis, and to search

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for the future options.

In retrospect, the Korean government seemed to be vaguely aware of the risks of financial liberalization. However, it was not yet ready to handle the risks and the constraints for economic policy imposed by the international capital movements in an inter-connected world. This is clear from the behavior of the government. The Korean government prepared several blueprints for financial liberalization and market opening, and put them in action step by step for fear that free capital flow would destabilize the financial sector and hurt the domestic market. But the government still believed that it could manage whatever risks would occur and kept the same attitude as before at the operating level. The Korean government stuck to both rigid exchange rate and rigid interest rate policies, and arbitrarily deregulated and regulated the inflow of foreign capital. Korea became more and more vulnerable to a crisis through the 1990s and it finally struck in 1997.

Confronted with the crisis, the government implemented drastic liberalization measures, adopting the free-floating exchange rate system and lifting restrictions on capital account transactions. However, this is not clearly the permanent solution because new problems emerge. In fact, the currently freely fluctuating exchange rates and the increased financial instabilities pose a new challenge for Korean economy, namely, to reduce the detrimental effect of large exchange rate instabilities and to protect from vagrant international capital movement. There is then a good reason for reassessing policy mistakes in the past and searching policy options for the future. In reassessing how policy mistakes accumulated vulnerability in Korea, this paper focuses on two aspects of past policies: inflexibility of exchange rate policies and asymmetry of capital control policies. In searching future policy options, we suggest regional monetary cooperation as well as the strengthening of the financial sector in the domestic economy.

The organization of this paper is as follows. Section 2 contains an overview of the process of financial and foreign exchange market liberalization in Korea. In section 3, the policy mistakes of the Korean government are highlighted. Section 4 searches for some future policy options. In section 5 a summary is presented.

2. OVERVIEW OF FOREIGN EXCHANGE MARKET LIBERALIZATION IN KOREA

In Korea, foreign exchange market liberalization has been pursued simultaneously with financial liberalization as a part of a comprehensive economic liberalization program. Until the crisis broke out, the government had taken a gradual approach, planning the sequence of the deregulatory measures and putting them in action when certain economic conditions were satisfied. The plan had been drafted in a series of the Blueprint for Financial Liberalization and Market Opening. After the crisis, the government could not but take a sort of big-bang approach by the IMF's strong demands, fully opening the market and liberalizing the financial sector in a single day.

2.1. Gradual Liberalization before the Crisis

Until the first half of the 1980s, Korea chronically ran current account deficits and foreign debt grew in large scale. Since it needed a continuous inflow of capital for importing capital goods and financing investments, various liberalization measures were taken to induce capital inflows: i.e., the liberalization was one-way liberalization to induce

capital inflow rather than two-way liberalization to make capital freely move inward and outward. An initial step toward financial market opening was taken with the announcement of a Long-term Blueprint for Capital Market Opening in 1981. Foreigners were allowed to invest in domestic stocks indirectly through investment trust funds for foreigners such as the Korea Fund established in 1984 and the Korea Europe Fund established in 1987. Domestic firms were allowed to issue convertible bonds to foreigners in 1985, and entry of foreign banks into the domestic banking market was encouraged as means of attracting foreign capital. As a result, Korea recorded significant capital account surplus, most of which consisted of bank borrowing such as loans and trade credits, as shown in Table 1.

Table 1. Capital Flows since the 1980s

	(\$million)		
	82-85	86-91	92-96
Current Account	-6,516	33,686	-41,339
Trade Account	-5,143	27,908	-23,484
Invisible Account	-3,313	1,828	-17,855
Transfer Account	2,210	3,951	1
Capital Account	5,221	-12,916	54,692
Long-term Capital	5,669	-13,913	41,619
Liabilities	8,423	-10,166	55,597
Public Loan	3,528	-3,720	-3,662
Commercial Loan	-697	-2,939	-2,339
Direct Investment	481	2,666	5,018
Portfolio Investment	1,517	-245	45,066
Others	3,594	-5,928	11,514
Assets (increase -)	-2,754	-3,747	-13,977
Overseas Investment	-324	-750	-11,233
Others	-2,430	-2,997	-2,744
Short-term Capital	-448	998	13,073
Liabilities	-574	1,548	21,446
Assets (increase -)	126	-551	-8,373

As the current account began to show a large surplus in the late 1980s, however, liberalization measures were taken the other way to induce capital outflow and limit capital inflows. The government allowed individual acquisition of overseas real estate and deregulated direct overseas investment. Commercial borrowing by domestic firms was prohibited, the overseas issuance of bonds by domestic residents was also restricted, and banks and firms were advised to reduce their exposure to foreign debt by repaying debt using the current account surplus. Foreign exchange transactions, which had been under strict controls because of chronic current account deficits, also began to be liberalized as the

current account deficits turned into surpluses in the latter half of the 1980s. Deregulatory changes took place in areas like foreign exchange rate system, position management, and underlying documentation requirement. At the same time, efforts for the internationalization of the Korean won had been carried out consistently. The capital account deficit and the large increase in both long-term and short-term foreign assets held by domestic residents in the above table reflect this liberalization.¹

Despite some progress, the liberalization in the 1980s was intermittent. The liberalization process in the 1990s, however, has been consistently pursued.

A new exchange rate system was adopted in March 1990 in order to allow the won/dollar exchange rate to be determined by market forces, replacing the multiple currency basket peg (MCBP) system which had been in service since March 1980. The market average rate (MAR) system allowed the won/dollar exchange rate to fluctuate freely within a band around a base exchange rate.² The base exchange rate was determined daily as the weighted average of the won/dollar exchange rates applied in the interbank spot transactions of the previous business day. Also foreign securities companies were permitted to establish branches and joint-venture companies in 1990, and the branches were allowed to become members of the Korea Stock Exchange in 1991. Overseas issuance of foreign currency denominated bonds by domestic firms was also deregulated in 1991. A most drastic step in the process was the opening of the Korean stock market to foreign investors in 1992. For the first time, foreigners were allowed to directly invest in the Korean stock market.

Liberalization gained speed in the 1990s, but, the Korean government was cautious and preferred gradual liberalization. Thus, both explicit quantity restrictions and discretionary controls remained prevalent. Foreign investment in Korean stocks were limited up to 3 percent of the outstanding shares of each company for each individual and 10 percent thereof for total foreign investors. This ceiling continued to exist until the crisis, although it was relaxed to 12 percent in December 1994 and further to 15 percent in July 1995. Restrictions on the uses of commercial borrowings by domestic firms also existed and government approval was required. While the overseas issuance of foreign currency denominated bonds by domestic firms was deregulated, it was still subject to discretionary quantity control. As for the exchange rate system, the daily fluctuation band, which was originally set to be 0.4% above and below the base exchange rate, was gradually expanded and finally eliminated after the crisis.

Although there remained some controls on capital flows, the liberalization process throughout the 1990s was significant enough to trigger massive capital inflow. Large interest rate differential between domestic and foreign financial markets coupled with the favorable prospects of the economy made the Korean market very attractive. A salient feature of the increased capital inflow in the 1990s, as seen in Table 1, is that capital flowed into Korea mainly in the form of portfolio investment. The inflow of portfolio investment during 1992-1996 was \$ 45.1billion, accounting for over 80 percent of total foreign capital

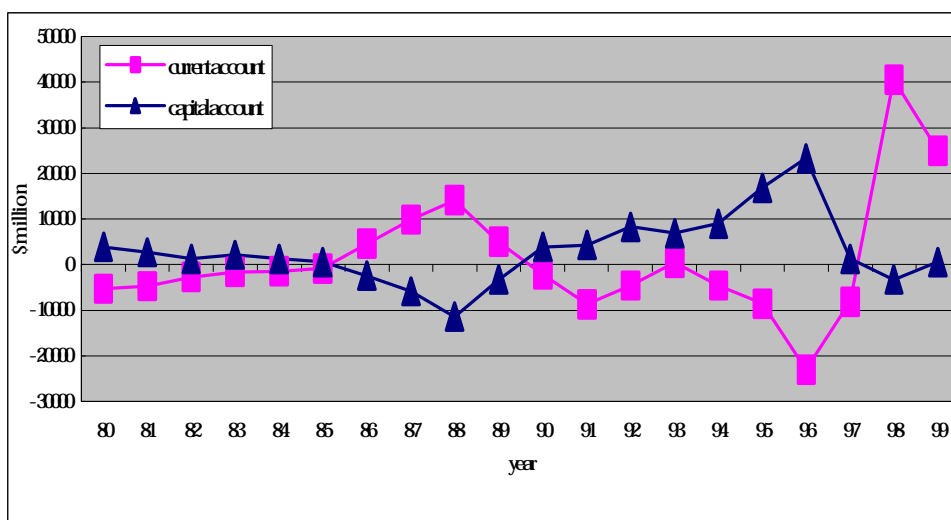
¹ A detailed explanation of Korea's financial liberalization in the 1980s can be found in Kim and Lee (1994).

² The band was 0.4% in the beginning and expanded to 0.6% in September 1991, to 0.8% in July 1992, to 1.0% in October 1993, to 1.5% in November 1994, to 2.25% in December 1995, and then to 10% in November 1997. Eventually, the daily fluctuation band was eliminated in December 1997 right after the crisis broke out and the current free-floating system was adopted.

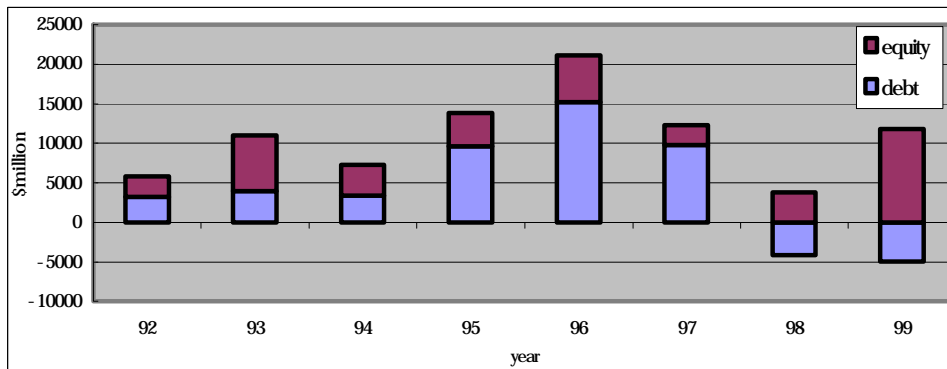
inflows in the period.

As portfolio investment emerged as the dominant form of capital inflows in the 1990s, the capital account showed a quite different pattern from that of the previous decade. In the 1980s, public loans, commercial loans, and direct investment which are linked to current transaction accounted for the lion's share of capital inflows. Therefore, capital account deficit (surplus) reflected current account surplus (deficit) and two accounts were highly negatively correlated as shown in Figure 1. In the 1990s, especially after the capital market was opened, portfolio investment which basically has no link to current transaction dominated capital flows and the correlation between capital account and current account was weakened.

Figure 1. Current Account and Capital Account



Another feature of the 1990s was the increasing share of debt instruments in the foreign portfolio investments (Shin 1999), with equity investments by foreigners remaining very limited portion of capital inflows (Figure 2). Consequently, the surge of net capital inflows was tantamount to a sharp increase in Korea's external debt. The major portion of the increase in external debt involved the banking sector. Out of total increase during 1994-1996 just before the crisis, the banking sector explains about 70 percent, and the remaining reflects the corporate sector's external debt, related with trade financing.

Figure 2. Instruments of Portfolio Investment

In 1996, the Korean government announced the Blueprint for Financial Liberalization and Market Opening in hopes Korea would be admitted into the OECD, revising the Blueprint for Three-stage Financial Liberalization prepared in 1995³. However, this plan could not be realized because of the currency crisis that swept Korea in 1997.⁴

2.2. Big-bang Liberalization after the Crisis

The Korean government, faced with the crisis, had no choice but to ask for the IMF for financial support on November 21, 1997. The government and the IMF agreed upon the contents of the IMF program on December 3 of that year. The Memorandum on the Economic Program included guidance on everything from capital account liberalization to macroeconomic policies, financial sector restructuring, prudential regulations and supervision, corporate governance and restructuring, trade liberalization, and transparency, monitoring, and data reporting.

The IMF program suddenly changed the liberalization process that the Korean government had prepared and implemented step by step before the crisis. Right after the

³ To enter the OECD, and to handle the financial sector problems in consistent manner, the government formed the 'Committee for Financial Sector Reform' in 1996. The committee prepared the 'Report to the President on Financial Sector Reform and Financial Liberalization Plan' in 1997.

⁴ According to the new Blueprint, various restrictions were scheduled to be lifted step by step from 1997 to 2000. For example, the equity investment ceiling for foreigners was planned to be expanded to 23 percent in 1997, 26 percent in 1998, and 29 percent in 1999, and was planned to be completely eliminated in 2000. The bond market was to be opened in 1997; foreigner's investment was allowed first in long term bonds in 1997 and the investment in short term bonds was gradually to be opened from 2000. The financial services market was also to be opened to foreign financial firms. Foreign exchange liberalization was accelerated by further widening the daily fluctuation band and changing the regulatory framework to a negative system. Besides, restrictions on corporate overseas borrowing were further relaxed from 1997 and planned to be fully liberalized in 1998.

crisis, on December 16, 1997, the government changed the exchange rate system from the MAR system to a free-floating system. The equity investment ceiling for foreigners was expanded up to 55 percent by the end of 1997 and completely eliminated by May 1998. The ceilings for foreign investment in all bonds were also eliminated by the end of 1997 and the money market was fully liberalized by May 1998. Corporations were allowed to introduce loans in cash with a maturity of 3 years or more beginning December 1997. The foreign direct investment promotion act was submitted to the National Assembly in June 1998: land acquisition by foreigners was allowed and takeovers by foreign investors were fully liberalized.

Although there were some new items, the liberalization plan of the IMF was very similar to the Blueprint for Financial Liberalization and Market Opening submitted to the OECD in 1996.⁵ While the blueprint was to be implemented step by step when economic conditions were met, the IMF preferred a big-bang liberalization plan, which was unilaterally adopted because the Korean government lost the bargaining power as a state of paralysis emerged in the financial market. Without a proper institutional environment for hedging risks related to financial market turbulence, the Korean economy could be more vulnerable to speculative attacks and volatility in international financial market.

Recognizing the possible problems associated with this sudden liberalization, the government has tried to supplement some prevention policies in the Basic Plan of Foreign Exchange Liberalization announced in June 1998, while further deepening the liberalization process. The Basic Plan consists of two stages: the first stage of liberalization was implemented by April 1999 and the second was to be implemented by the end of 2000. In the first stage, current account was to be further liberalized except for flight cases and criminal cases, and the regulatory framework of foreign exchange transaction was to be changed from a positive system to a negative system. Also, requirements for underlying documentation were to be abolished, and foreigners' engagement in foreign exchange transaction and financial services was to be much expanded. In the second stage, current account will be fully liberalized with only a few minor exceptions such as restrictions related to national security and criminal cases. Limit on foreign exchange payment by domestic residents and requirements to repatriate overseas borrowings will also be lifted. Security investment through foreign security companies will be permitted and non-foreign exchange banks will deal with derivatives transaction.

3. POLICY MISTAKES IN THE FOREIGN EXCHANGE MARKET LIBERALIZATION

Although the overall foreign exchange market liberalization process, based on a series of blueprints for financial liberalization before the crisis, had seemed to be relatively well-planned, Korea was struck by the crisis in the late 1997⁶. It might be argued that rapid

⁵ Overall, the restructuring and liberalization of the IMF program is very similar to the Reports to the President on Financial Sector Reform and Financial Liberalization submitted in 1997. The IMF delegates had English versions of the reports and were believed to refer to them.

⁶ The underlying origins of the Korean crisis are multifaceted, and external and internal factors are intermingled. This paper does not aim to examine causes of the crisis, and confines the discussion to those directly related to financial liberalization process.

foreign exchange market liberalization was the most important factor contributing to Korea's vulnerability to an external impact. However, more important than the financial liberalization was the mismanagement of the economic policies by the Korean government. The rigid exchange rate policy together with the asymmetric regulations on capital flows were the two most important policy mistakes that caused the accumulation of external and internal vulnerability and triggered the currency crisis.

3.1. Rigid Exchange Rate Policies and Reserve Drain

Against the large capital movement and external disequilibrium, the government could consider three alternative policies. The first was to peg exchange rates, adjusting the disequilibrium through domestic monetary and interest policy. The second was to let exchange rates float, leaving domestic interest rate intact. The third was to resort to a sterilization policy, keeping both exchange rate and interest rate unchanged. If the external disequilibrium was to be temporary, the last would be desirable. However, if the disequilibrium was to be persistent, only a flexible exchange rate or a flexible interest rate could be the possible alternative.

For both economic and political economic reasons, the Korean government chose the last alternative, keeping both the exchange rate and the interest rate constant. In the 1990s, this policy confronted serious problems. With a large differential between domestic and foreign interest rates maintained, a sterilization policy provoked only capital inflows. As a result, the Korean won was kept overvalued and current account deficit continued. Moreover, the government's rigid exchange rate policy contributed to the expansion of foreign debts in the 1990s. When the current account deficit widened and hence the Korean won needed depreciating, the government financed the current account deficit with foreign capital inflow, postponing the exchange rate adjustment.

The problem of rigid exchange rate policy was especially manifest during the evolution of the crisis. It is generally agreed that the rigid exchange rate policy was one of the most important causes of the currency crises in Asia. In fact, concerning the exchange rate policies of Asian countries during 1997, two groups can be distinguished. The first group of countries faced speculative attacks and currency crises. This group included countries such as Thailand, Indonesia, and the Philippines where attempts to fix the exchange rate at an unsustainable level were perceived as the main cause of the speculative attacks. The second group of countries includes those that allowed their currency to depreciate rather than defend their parities. This group included Singapore and Taiwan.

Korea belonged to neither group. The Korean won had been in decline since 1996. In fact, the won had depreciated in real terms throughout the 1990s, but this policy abruptly changed in February-March 1997 when the Korean government suddenly attempted to maintain the exchange rate of the won against the dollar.⁷ There were no economic reasons why the Korean government had to fix its exchange rate in the face of increasing foreign

⁷ At the same time there was a change in cabinet members, and with the new deputy prime minister in office, the exchange rate policy changed. There were yet no official reports about why the government attempted to fix the exchange rate of the Won, reversing previous policy. However, some have speculated the new prime minister tried to help then President Kim Young-Sam keep one of the promises he had made during the presidential election campaign of 1992, i.e., to double the per capital GNP within 5 years from almost \$10,000 in 1992 to \$20,000 in 1997.

competition and export difficulties. It might be suggested that if the trend of depreciation had continued, Korea may have been able to avoid the sudden collapse of its currency. However, in November, the won collapsed under the mounting pressure of capital withdrawal.

Figure 3. Comparative Exchange Rates against US Dollar (January 5, 1996=100)

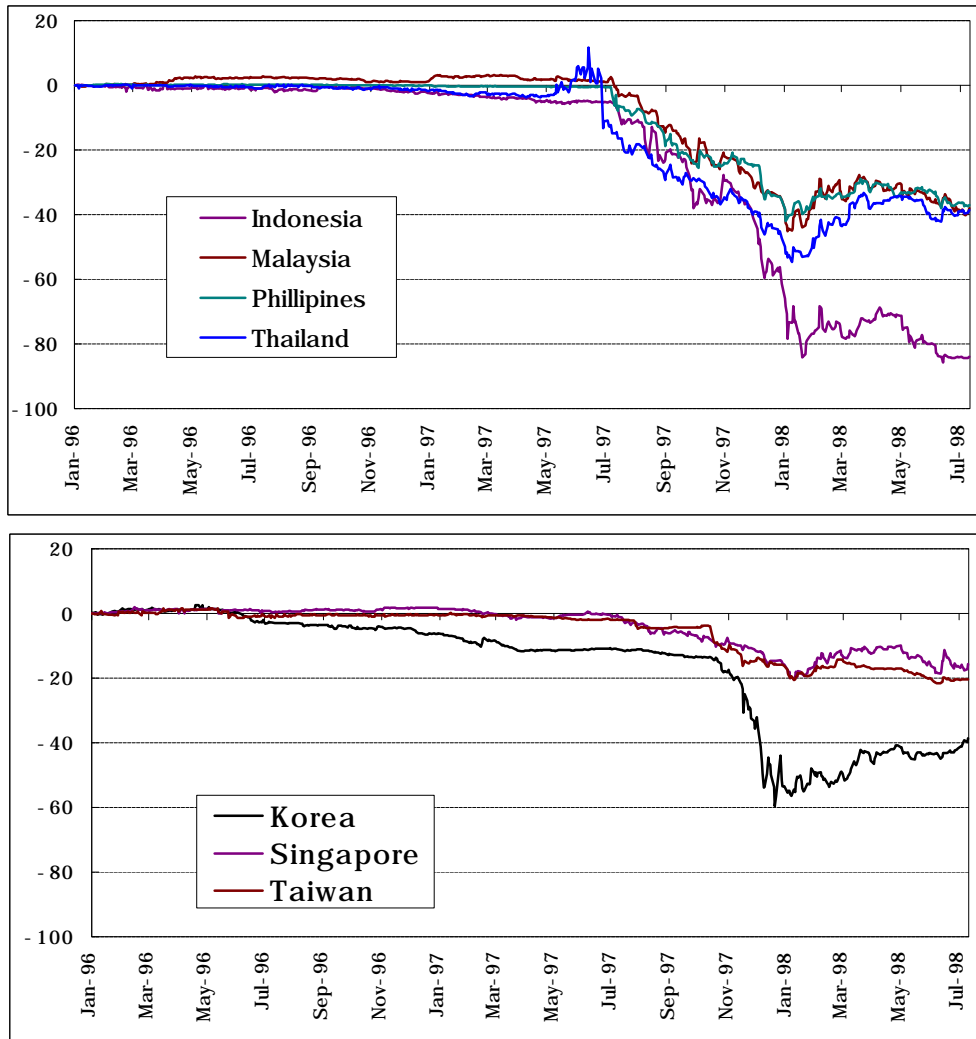


Figure 3 shows clearly that there were two attempts to withdraw capital from Korea and to put depreciation pressure on the Korean won during 1997. The first attempt in February-March could be handled without causing great concern through the secret and skillful camouflage of reserve drain by the Bank of Korea. But the second attempt in October-November could not be handled in the same way, given that Korea had smaller foreign

reserves in October-November, and that the currency crises had already spread all over Asia. As foreign banks rejected rolling over short term loans to Korean banks and as the consequent demand for dollars increased, the BOK could not but spend official reserves to bail out these financial companies and stabilize the exchange rate. In fact, to camouflage the decline in reserve, two strategies were used.

The first one was a secret support scheme. The BOK moved their short-term safe deposits to overseas branches of Korean banks, which in turn moved their deposits to their mother banks in Korea. In appearance, there was no change at all in the official statistics of foreign reserves that the BOK held. However, in reality, usable foreign reserves fell in the sense that these deposits cannot be used to repay foreign investors. In February, the overseas branch deposits increased by 3.2 billion dollars, and in November these deposits doubled to reach 16.9 billion dollars, which amounted to more than half of official reserves (Table 2).

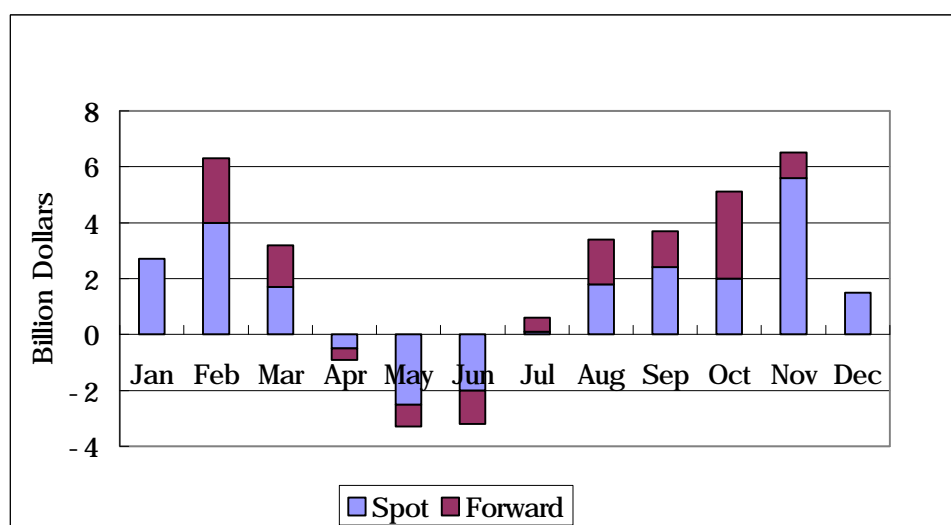
Table 2. Foreign Reserves, 1997

(\$billion)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Foreign Reserves(A)	31.0	29.8	29.1	29.8	31.9	33.3	33.7	31.1	30.4	30.5	24.4	20.4
Non-liquid Foreign Reserves(B)	3.8	9.8	11.8	11.3	9.5	7.9	8.6	10.1	11.0	14.1	23.3	17.4
Oversea Branch Deposits	3.8	7.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	16.9	11.4
Forward Balances to Be Settled	-	2.3	3.8	3.3	1.5	-0.2	0.6	2.1	3.0	5.9	6.2	5.8
Other	-	-	-	-	-	-	-	-	-	0.2	0.2	0.2
Usable Foreign Reserves(C)	27.2	20.5	17.3	18.5	22.4	25.5	25.1	21.0	19.4	16.4	1.1	3.2
Change in Usable Foreign Reserves		-6.7	-3.2	1.2	3.9	3.1	-0.4	-4.1	-1.6	-3.0	-15.3	1.9
Exchange Market Intervention		-4.3	-1.5	0.2	1.0	1.6	0.1	-1.8	-2.7	-2.0	-7.0	-2.0
Increase in Oversea Branch Deposits		-3.2	-	-	-	-	-	-	-	-	-8.9	5.6
Other		0.8	-0.7	1.0	2.9	1.5	-0.5	-2.3	1.1	-1.0	0.6	-1.7

Source : Ministry of Finance and Economy

The second strategy was to intervene in the forward exchange market. If the BOK concluded a forward contract to sell the US dollar, then there would have been no change in the foreign reserves held by the BOK until the settlement date, but its effect would be almost the same as a selling of the US dollar on the spot market. In fact, the BOK massively intervened in the forward market in February and October (Figure 4).

Figure 4. Foreign Exchange Market Intervention (Intervention base)

Note: Negative values imply buying the US dollar.

Source: BOK

In the face of depleting foreign reserves, and because the central bank had to support financial intermediaries, it was understandable that these strategies were inevitable. In fact, it was quite a success in February and March. In March when the first wave of capital withdrawal by foreign investors took place, this scheme was a success because the changes in the useable reserves were kept secret from investors, domestic and abroad, and foreign capital drain could be avoided. The market intervention worked as intended (Figure 3), and the exchange rate could be maintained. At the given exchange rate foreign capital could be repatriated without troubles. Foreign investors soon recovered their confidence in the Korean market.

In October, the situation was different. As foreign capital continued to flow out, it became more and more apparent that the Korean government and BOK could not maintain their previous official reserves. Despite continued withdrawal of capital, the changes in the official foreign reserves that the BOK reported were less than expected. More and more people began to doubt the credibility of the announced reports of foreign reserve holdings by the Korean government. Foreign investors did not cease to withdraw their capital, continuing to sell off Korean one against the dollar. Finally the Korean government succumbed as the useable reserves fell to a record critical level, and the Korean won collapsed. Immediately after the collapse of the Korean won, it was discovered that these doubts were well-founded and justified. Table 2 reveals that the government's management of the country's foreign reserves was very poor. A symbolic example is the fact that in the one month of November, the government wasted \$15.3 billion in unjustifiably defending the exchange rate and supporting domestic banks facing default.

There was a need for the Korean government to act as a lender of last resort but there was no need to do it on the fixed exchange rate. When it became clear that the demand for the dollar was coming from domestic financial institutions that were being requested to repay foreign debt by foreign creditors and were being denied roll-overs of past debts, the

support should have been made on a penalty basis, allowing the Korean won to gradually depreciate. But the width of exchange fluctuation was maintained very small and under this circumstance, the government spent \$8.9 billion in November only to support falling banks. More serious was the intervention to fix the exchange rate, even after it became clear that the exchange rate was no longer fixable. When the market did not have credibility on the government, foreign exchange market intervention was of no use at all. Foreign reserves worth \$6.5 billion were depleted only to fix the exchange rate in vain during November. \$2.9 billion was even spent on the day (November 21) when the IMF bailout was decided.

3.2. Asymmetric Regulation on Capital Flows

The external vulnerability can be characterized as the large size of foreign debts and the high ratio of short-term debts. First, regarding the large size, as the liberalization proceeded in the 1990s, Korean banks and firms had operated abroad huge amount of foreign money and external liabilities had been accumulated (Table 3)⁸.

Table 3. Foreign Debts of Korea, December 1997

	(\$billion)
Total Foreign debts	207.6
External Liabilities (IMF definition)	154.4
Debts owed by government sector	18.0
Debts owed by financial sector	60.5
Off-shore banking by Korean financial institutions	33.6
Debts owed by firms	42.3
Debts owed by oversee branches or subsidiaries of Korean firms	53.2

Source: Ministry of Finance and Economy

What was critical in this respect was the asymmetric regulation on the inflow and outflow of capital. The government took a conservative attitude towards opening domestic markets. Restrictions on outward capital movements, on the other hand, were radically deregulated to give domestic firms and banks access to international financial markets. The first reason for this asymmetric regulation was that Korean government was afraid that the real appreciation of Korean won caused by massive inflow of capital would weaken the export competitiveness of Korean industry. The second reason was related to the sterilization policy of the Korean government. In the 1990s, the Korean government massively resorted to the sterilization policy in order to reduce the inflationary pressure caused by foreign capital inflows.

One of the consequences of the asymmetric regulation on capital flows was the competitive establishment of overseas branches by domestic financial institutions. In fact, a wave of creation of overseas funds followed, reflecting the globalization of Korean financial institutions. As a result, firms and banks borrowed and used debts abroad without repatriating it, and offshore borrowings grew very large.

⁸ Offshore borrowings by overseas branches without the payment guarantees of the parent companies and off-the-record investments in derivatives made by financial institutions had not been revealed until the crisis

Another consequence of the asymmetric regulation on capital flows besides the simple accumulation of foreign debts was the exposure to high risks due to the absence of bank managers who were accustomed to international business and had the floating exchange rate experience. Korean banks simply continued what they did in the domestic market. Through the overseas subsidiary companies, they recklessly borrowed from international banks and lent either to domestic companies or to high risk foreign countries. Domestic financial institutions borrowed \$66.6 billion in foreign currency: Overseas borrowings amounted to \$58 billion and domestic foreign currency borrowing to \$8.6 billion. Among this, they lent back to Korean companies, particularly overseas subsidiaries of big conglomerates, \$39.5 billion (59.3 percent of total foreign currency loans) and the rest to emerging high risk countries in East Asia and Russia, with nothing in mind but high return. Risk management practically did not exist and Korean banks were highly exposed to foreign exchange rate change (Table 4): When the Asian currency crisis broke out, it turned out that about \$1.7 billion could not be retrieved.

Table 4. Foreign Currency Exposure of Korean Banks, December 1997

Borrowers	Asia					Russia	Korea	Other	Total
	Thai	Indon -esia	Malay -sia	Others	Total				
Deposit Banks	2.97	2.61	0.84	9.09	15.53	1.47	38.33	4.86	60.2 0
Merchant Banks	0.50	1.15	0.53	1.30	6.41	0.51	1.18	1.21	6.41
Total	3.48	3.76	1.38	10.40	19.03	1.99	39.51	6.07	66.6 2

Source: BOK

Second, a more serious vulnerability was the high ratio of foreign debts. The vulnerability of the Korean economy rapidly increased as short-term debts occupied excessively large portion of foreign debts. The ratio of short-term debts to total foreign debts was much higher in Korea than in Thailand or Mexico which had gone through similar currency crises. The short-term debt ratio had stayed at the level of 40-45 percent but suddenly increased and reached near 60 percent just before the crisis.

A huge part of the responsibility for the higher ratio of short-term debts also lies with another asymmetric regulation on short-term and long-term borrowings. The government boosted incentives for short-term loans by making it mandatory to notify authorities of long-term foreign debts, whereas short-term loans were regarded as related to trade financing and therefore were not especially regulated.⁹ As the result, banks and firms had been operating on a long-term basis with short-term capital borrowed abroad, leading to significant discrepancy in the maturity structure. There is another example that the government's guidance of financial institutions contributed to increases in short-term debts. When Korea became a member of the OECD, the government expected that the sovereign credit rating would improve, and suggested that financial institutions transform long-term debts into short-term debts at lower interest rates.

The mismatch is especially serious for merchant banks. For example, the liquidity ratio

⁹ Foreign Exchange Management Law, 2-55 and 2-56

in foreign currency for these merchant banks was only 3-6 percent for all the periods up to the financial crisis (Table 5). The danger of increased short-term debts is that the shorter the maturity, the larger the liquidity squeeze when credibility declines, which is exactly what happened to Korea in 1997. It was asserted that Korea could be protected from hot-money because liquid asset markets were not open to foreigners. But short-term debts themselves became hot money once the country's credibility deteriorated; this became a catalyst for further worsening the international liquidity crisis as foreign banks froze the roll-over of and collected their loans.

Table 5. Foreign Currency Liquidity Ratio

	1992	1993	1994	1995	1996	1997
Deposit banks	83.2	87.9	80.6	77.5	77.7	93.4
Development banks	30.8	32.8	33.3	39.8	43.4	61.9
Merchant banks	3.6	4.0	3.0	3.1	6.3	14.7

Note: The liquidity ration is the short term use of foreign currency/short term borrowing of foreign currency.

Source: BOK

4. FUTURE POLICY OPTIONS IN A WORLD OF GLOBALIZATION

In the world of financial globalization, a country such as Korea will become more and more vulnerable to capital flows, and financial crises will continue to occur in the future as they have for centuries past. Against large capital movements, there are then two possible strategies that a small country like Korea should take into consideration.

The first one is an individual approach, which calls for each country to swiftly adapt domestic financial system to international level by fully opening domestic market and adopting the flexible exchange rate system. The problem for this approach is that large exchange rate variabilities subsist, hurting external transaction. Especially the wide fluctuating exchange rates between Asian currencies pose a great threat to regional prosperity given the increasing economic ties between East Asian countries. Moreover, no matter how well emerging countries like Korea are internally prepared, they are not large enough to stand alone against the tide of international capital flow.

The second strategy is then to rely on an international organization like the IMF or protect themselves by a collective monetary arrangement. But it turned out that East Asian countries could not depend solely on the IMF when they were attacked by international speculative capital and were temporarily short of liquidity as the recent Asian currency crisis shows. Then, Asian monetary cooperation appears to be the only feasible alternative. There have been in fact a variety of proposals regarding such an alternative.¹⁰ No matter what their concrete contents may be, proposals for Asian monetary cooperation must deal with at least two issues: how to provide international liquidity in urgent situation and how to stabilize exchange rates within the region.

¹⁰ For example, International Economy (1999), JETRO (1998), McKinnon (1998), Williamson (1999).

4.1. Liquidity Resolution

To resolve lack of international liquidity, Asian countries should reduce the exposure of their economies to outside currencies, increasing the use of regional currencies in international transactions. In order to increase the share of regional currencies in the international settlement, the convertibility of each regional currency should be guaranteed not only in the current account transactions but also in the capital account transactions. The Japanese yen is the most liquid asset in the region and in this respect it is likely that the yen will emerge as the regional settlement currency. But given that concrete forms of monetary union in the region are yet to be determined, it would prematurely provoke many oppositions to let the yen play the role of a vehicle currency. It would be more natural and effective to allow a couple of currencies fill this role and compete with each other for the settlement currency.

There is ample room for regional currencies to be used in the regional settlement. For example, Korea is running a current account surplus vis-a-vis China and South East Asia, hence the settlement of trade between Korea and these countries can be made in Korean currency. Also Chinese currency can be used in the settlement of trade between China and its trading partners against which China has a current account surplus. The increased use of regional currencies in the settlement of trade will be helpful in determining the key currency if Asia is to ultimately create an East Asian monetary union. Note, however, that the development of underlying foreign exchange and financial markets is very important in increasing the convertibility of the regional currencies and promoting them as the settlement currency. The underdevelopment of Japanese financial and currency markets is, in fact, one of the most serious problems standing in the way of Japan being the region's key currency country. Japan's weak financial system caused Japanese banks to quickly retrieve money lent to other Asian countries when the crisis took place, adding financial difficulties to the crisis-stricken Asian countries. Moreover, despite an enormous trade surplus vis-a-vis other countries, it caused the Japanese yen to depreciate, bringing about a loss of confidence and damaging other Asian countries' exports to Japan.

More importantly, an emergency liquidity provision facility can be considered. Such need for international cooperation is all the stronger, given the magnitude of current capital movements. In this regard, European monetary cooperation experiences could provide a very good guide.

In the whole history of monetary cooperation in Europe, the facility for the provision of liquidity has been constantly strengthened and constituted as one of the most important instruments for monetary cooperation. In the EMS, this facility is known as the Very Short Term Financing Facility (VSTFF) and European Monetary Cooperation Fund (EMCF) is scheduled to manage it. Under the VSTFF, the central banks of strong currencies have an obligation to provide unlimited amounts of their own currencies to defend the existing exchange rate margin.¹¹ This obligation has come about because the official reserve holdings that one country can use in order to intervene in the foreign exchange market are not sufficient to cope with the unprecedented magnitude of private capital movements.¹² In

¹¹ Of course, this may cause the moral hazard problem for borrowing countries. To alleviate this problem, some measures can be considered. For example, borrowing countries can be required to get the prior permission from lending countries, or be charged the penalty, if the amount of the borrowing exceeds certain limit or quota

¹² In the case of European countries, the German Bundesbank took this role as the

addition, the ERM crisis in 1992-3 shows that even these EMS institutional frameworks were not sufficient to defend off the speculative attacks. Defending the parities would require a recycling mechanism to counteract destabilizing speculative capital movements by providing temporary accommodation of the demand for currency diversification. One such proposal is to remove the asset settlement rule of the ERM. In this case, the central banks that receive intervention credit would no longer be obliged to repay the intervention balances in third currencies (Collignon 1996).

The European monetary arrangement and experiences are in sharp contrast to the proposal for an AMF.¹³ It is clear that the economic problems of Asian countries will not be resolved unless Japan takes a more active role in the region. But, Japan's role remains still very limited in the region. This is clear from the proposal for AMF because the AMF is meant to do nothing but provide a limited amount of dollar funds to Asian countries. With the establishment of dollar funds, Japan can insulate its domestic economy from external disturbances originating in Asian countries, and may feel no obligation to equilibrate its BOP surplus vis-a-vis other Asian countries. Moreover, simple provision of dollar funds, the total amount of which is limited to US 30 billion dollars, is greatly insufficient for other Asian countries to cope with the currency crisis. If Japan is genuinely interested in taking a leadership role in the regional monetary cooperation, it must use the yen as an intervention currency so as to be ready to provide whatever amount of emergency yen, not a fixed amount of dollars, is needed to defend against speculative attacks on neighboring Asian countries.

Recently at the Executive Meeting of East Asian Pacific Central Banks (EMEAP), it was agreed that the Bank of Japan would provide with emergency loans in yen to 11 neighbor Asian central banks with the collateral of Japanese government bonds if they came under heavy speculative attacks. This may be the first significant step toward stabilizing the currencies of Asian countries. If Asian countries hold a large amount of Japanese government bonds, then emergency loans with collateral of the bonds would be effective to nip a crisis in the bud. It is uncertain, however, if this agreement is really effective given the current meager holdings of Japanese government bonds by Asian countries. The holding of Japanese bonds is limited because the Japanese financial market is regulated and under-developed, and as was seen in the Asian crisis, such a measure did not work at all. Thus, a more effective way to prevent an instability developing into a crisis is to establish an emergency liquidity facility through which unlimited liquidity can be provided to countries under attacks, rather than to provide liquidity with collateral of government bonds.¹⁴

lender of last resort. For example, during the EMS crisis in September 1992, the credit that the Bundesbank had supplied reached about DM 93 billion. Because the liabilities that weak currency countries incur can be repaid in ECU, the value of German credits decreased after the devaluation of some European currencies. The expected loss of the Bundesbank was estimated to be in excess of DM 1 billion in its VSTFF lending facility (Collignon 1996).

¹³ For the proposal for an AMF, see Shinohara (1999).

¹⁴ Feldstein (1999) suggests that a more reliable way to provide with international liquidity at the time of need is to maintain private lending and increase the volume of credit through the credit facility with the collateral of trade receivables, i.e., the export earnings in hard currencies of domestic firms.

4.2. Stabilization of Exchange Rates

Under the free and massive movements of capital, the stabilization of exchange rates between regional currencies requires two important questions to be addressed: first, which currency should be chosen as the key currency; and second, what is the appropriate exchange rate system.

Studies on the choice of the anchor currency have concluded that the East Asian region turned out to be a de facto dollar bloc.¹⁵ This conclusion is mainly because East Asian countries continued to peg their national currencies to the dollar. However, choosing the dollar as the anchor currency poses some problems. First, the old Asian monetary order of pegging currencies unilaterally to the US dollar has already failed. Second, the Japanese yen has increased its role in the region (Table 6). Third, in terms of economic presence, Japan is more important than the US.¹⁶

Table 6. Currency Composition of Long-term Debt of Asian Countries

	Korea	China	Indonesia	Malaysia	Philippines	Thailand
Dollar	-	57.9	21.5	45.1	31.5	26.6
Yen	32.2	20.7	35.4	31.7	36.9	48.1

Source : World Bank

One alternative to the dollar is to use the yen as the anchor. Given the economic importance of Japan in the region, this option seems to be gaining more and more popularity after the crisis. In fact, there are reasons for other Asian countries to collectively peg their currencies to the yen or to increase the weight of the yen in their existing currency baskets.¹⁷

However, this alternative does not seem politically feasible, given the strong opposition not only from the US but also from other Asian countries fearing the hegemony of Japan in the region. Consequently, no government in East Asia requested it and a loose dollar peg seems to reappear in East Asia as the crisis is over. It implies that the desire to maintain stable exchange rates is very strong in the region. The re-appearance of a loose dollar peg is a natural response to the lack of a better alternative. (Tanaka 1998, p.208).

The other alternative is to resort to multiple currencies through a currency basket, rather than a single currency. There are two options with respect to the choice of the basket currencies. The first is to include the dollar, the yen and the euro in the basket. It is argued that this option, strongly supported by Japan, could resolve the problem of the anchor country reaping all the accruing seigniorage. This option, however, has a serious weakness that no country of the three will voluntarily announce itself as the anchor country to take the burden of readily providing liquidity to participating countries. Clearly the US and the EU will not sacrifice their own economic policy goals in favor of East Asian countries

¹⁵ For example, Choi (1999b), Eichengreen and Bayoumi (1999), Frankel and Wei (1994).

¹⁶ More detailed explanation on these and other reasons, see Moon, Rhee and Yoon (2000). Also see Ito et al. (1999).

¹⁷ For example, Kwan (1998) indicates that the Japanese yen should have a weight of more than 50 percent if the European rule applies to the Asian Currency Unit.

under the circumstances of conflicting interests; and even Japan is likely to take a similar stance to the US and the EU in this system. Therefore, it will be difficult for East Asian countries to accept this option.

The second option is consequently to construct the basket only on the basis of regional currencies. This was in fact what happened in the case of European monetary integration. The ECU was a basket composed of regional currencies. This option leads to further economic policy coordination and cooperation. More importantly, it can alleviate the fear of Japanese dominance and the opposition to a yen based monetary union. This option is also helpful for attracting the participation of more Asian countries than a yen bloc idea; if other currencies as well as the Japanese yen are included in the currency basket, the chances of a larger monetary union in the region will be greater.

Besides the anchor currency, we have to decide what exchange rate system should be adopted. Given that the economies of East Asian countries are very heterogeneous and that almost all these countries have moved to the floating system after the currency crisis, it seems more pertinent for an East Asian monetary union to start with a loose form of collective exchange rate arrangement. There never existed in East Asia what can be called economic union and there is a total absence of political solidarity among East Asian countries. Therefore it may be necessary for East Asian countries to have a psychological buffer period through which the experience of coordination and cooperation in economic policies could develop naturally into a full-fledged union.

If this is the case, what appears to be the most appropriate form is a target zone system based on the ACU. Also the band of fluctuation must be wider and frequent realignment should be avoided to cope effectively with speculation. Moreover, as emphasized in the case of an emergency loan facility, foreign exchange market intervention to stabilize the exchange rate within the given band of fluctuation requires short term loan facilities such as the VSTFF in the EMS and a responsible strong currency country acting as the lender of last resort. In the case of the East Asian Monetary Union, Japan is expected to assume this role, given its economic importance in the region, letting other Asian countries have access to yen liquidity whenever they need to support their own currencies.

The lender of last resort function is also very important in forging political solidarity. It can be recalled that in the case of Europe, the visions and the wills of political leaders were an essential ingredient in unifying Europe. Political solidarity is very weak in East Asia compared to Europe. The result is the absence of common rules and institutions and in this respect the prospect for an East Asian Monetary union seems dim (Eichengreen 1997). In fact, the recent currency and economic crisis in East Asia has shown that Asian economic cooperation without common institutions is useless once a crisis occurs. Unlike the EU, where the economic bloc was formed by mutual agreement at the government level for the purpose of integrating the market, economic cooperation in East Asia has emerged as a natural consequence of increasing globalization and interdependence. Such institutionalization as has taken place in the EU is essential. Unfortunately, there is little hope that this will occur in the near future.

5. CONCLUSION

Financial and foreign exchange market liberalization enhances market efficiency and economic welfare. However, this benefit does not come without cost. In the case of Korea, the cost was high because the Korean government was unable to manage its economy

appropriately in an increasingly integrated world. In fact, the mismanagement of economic policies is the real cause of the crisis, not the financial liberalization itself. In this respect, the inflexible exchange rate policy and inappropriate regulation policy for capital inflows were two most critical policy mistakes. Although one flexibility between exchange rate and interest rate was at least needed to adjust the external disequilibrium, the government chose a rigid exchange rate policy even during the crisis, keeping both exchange rate and interest rate from moving. Also what was critical in increasing the vulnerability of the Korean economy was the asymmetric regulation on the inflow and outflow of capital and on short term and long term borrowing.

After the crisis, the government implemented drastic liberalization measures in a single day, adopting a free-floating exchange rate system and lifting restrictions on capital account transactions. But this is not the permanent solution because new problems arise. In fact, the freely fluctuating exchange rates and the increased financial instabilities poses a new challenge for Korean economy, namely, to reduce the detrimental effect of large exchange rate instabilities and to protect the economy from the vagrant international capital movement.

In this world of financial globalization, a country such as Korea will become more and more vulnerable to capital flows, and financial crises will continue to occur in the future as they have for centuries past. Against large capital movements, there are then two possible strategies that a small country like Korea can adopt. The first one is individual to each nation. It calls for each country to swiftly adapt domestic systems to international systems by fully opening domestic market and adopting international standards. The second approach is to create a regional monetary bloc. No matter how well emerging countries are internally prepared, they are not large enough to stand alone against the tide of international capital flow. So they must protect themselves in a collective monetary arrangement rather than by individual adaptation, Asian monetary cooperation appears to be the only feasible alternative.

When it come to such regional monetary cooperation, it seems that a target zone system based on the ACU with wide band of fluctuation is the most appropriate form. More importantly, a country like Korea needs a very flexible emergency loan facility such as the VSTFF in the EMS, allowing foreign exchange market intervention to stabilize the exchange rate and, if necessary, reliance on the regional lender of last resort.

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