

Does the Sequencing Really Matter?: The Korean Experience in the Capital Market Liberalization*

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The most serious sequencing problem in Korea was to liberalize short-term financing through banks rather than long-term financing, and to underestimate the potential devastating impact on the economy when massive capital inflows have come to reverse. Although long-term capital inflows were rather repressed during the pre-crisis period, it would be an exaggeration to say that short-term capital movements were liberalized greatly. Neither firms nor banks could sell their short-term debt instruments in domestic currency to foreigners. Only liberalized were trade-related financing of firms and short-term foreign currency borrowings of banks. However, financial supervision and appropriate risk management was lacking. Without strengthening banking supervision and enhancing corporate governance, corporate debt crisis will be an inevitable outcome. In this regard, the main lesson of the Korean crisis is not the sequencing problem in the capital market liberalization, but the structural deficiencies as prerequisites of capital market liberalization.

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1. INTRODUCTION

It is no wonder that the Asian crisis is considered to be "the worst international economic crisis in fifty years," affecting two thirds of the world population and putting nearly half of the global economy into recession. Besides, as a senior IMF official publicly acknowledged, the Asian crisis has been a painful learning process for everyone concerned. In coping with the Asian crisis, the IMF started to apply its orthodox prescription of high interest rate policies and fiscal austerity measures along with rather drastic structural reform programs. Unfortunately, however, as the financially stricken Asian economies did not improve as quickly as was originally anticipated, and instead the crisis spread throughout the world, the IMF did take a more flexible approach to the problem.

Disputes on how to resolve the crisis seem to be originated from divided views on what caused the crisis in the first place. For the sake of simplicity, the academic circles may be split into two camps. One camp, which focuses on the liquidity shortage of the Asian countries, emphasizes the instability of the international financial market and the skittish behavior of international investors and creditors as a major triggering factor in the outbreak of the crisis.¹⁾ On this view, as applied to the East Asian economies, capital inflows in the years before the crisis was driven, largely, by investors' optimism about the prospects for earning high risk-adjusted returns in these economies, rather than distorted market incentives or deep-seated structural problems. According to this view, the crisis took place when euphoria turned to panic. In this light, expanded financial support facilities through the international financial institutions (IFIs), established orderly international work-out procedures, and safeguards in the case of an emergency could be relevant policy proposals for building the new international financial architecture. In addition, this view holds that the high interest rate policy and/or other austerity programs should be reconsidered as those policy measures may aggravate the situation rather than improve credibility in the

¹⁾ Radelet and Sachs (1998), and Chang and Velasco (1998) assert that the Asian crisis was primarily caused by illiquidity brought to a head by a panicked, herd behavior of international investors and creditors.

eyes of international investors.

As opposed to this financial panic view, the other camp, including the IMF, focused on structural weakness of the country in question, and, in particular, the moral hazard problem in both the corporate and financial sector. The argument, as applied to the East Asian economies, is that governments provided a range of inappropriate loan guarantees to their private sectors. For example, banks lent to favored individuals, corporations or sectors of the economy, on the understanding, implicit or explicit, that the government would provide financial support to them in the event that their loans could not be repaid. A similar logic could explain foreign investors' willingness to lend large amount of funds to domestic banks and favored corporations in the aftermath of financial deregulation. By this argument, these loans were not advanced on the basis of commercial assessment about the likely soundness of these domestic institutions, but because foreign investors assessed that East Asian governments, or IMF-sponsored international rescue packages, would likely repay the foreign loans if the domestic institutions could not do so. Accordingly, this view stressed the necessity for eliminating distorted market incentives provided by public sector, implicitly or explicitly.²⁾

In retrospect, we believe that both internal structural weakness and the instability of international financial markets led to the Asian crisis. Also while identification of whether either of the two was the leading cause of the recent crisis might help in some regards, a middle-ground approach that treats each cause with equal weights will likely prove beneficial in drawing policy lessons. Furthermore, two seemingly independent causes may be intertwined, because structurally unsound economies are likely to be more vulnerable to the instability of financial markets.

In particular, after the crisis, volatility or instability of international financial flows appears begging more serious attention, if any. Today, we live in the age of rapid globalization and virtualization. Thanks to the digital revolution and the internet communication, the global financial markets have become even more deeply integrated. According to the Bank for International Settlement (BIS), the daily foreign exchange trading volume

²⁾ See e.g., Corsetti *et al.* (1998a, 1998b), Fischer (1998), and Krugman (1998a, 1998b).

in the world amounts to USD 1.5 trillion. Less than 10 percent of the total is directly related to bona fide real economic transactions.

One can easily imagine how volatile the global financial capital flows, short-term flows in particular, could be if one believes in the existence of "herd instinct". And obviously, relatively weak and shallow emerging markets would be the most vulnerable. Volcker (1999) asserts that "small and open economies are inherently vulnerable to the volatility of global capital markets. The visual image of a vast sea of liquid capital strikes me as apt – the big and inevitable storms through which a great liner like the U.S.A. can safely sail will surely capsize even the sturdiest South Pacific canoes."

Since a global financial market and its potential volatility pose such a grave potential danger for most emerging market economies, individual countries and the international community should find ways and build mechanisms, by which the systemic risk of global financial instability could be minimized. Most of all, at the national level, the old question on how market opening should be sequenced may need re-examination in a new perspective. The old wisdom holds that properly and orderly sequenced external liberalization should be from the current account to the capital account and capital account liberalization should be in the order of long-term to short-term.³⁾ However, after the recent crisis, heated debates are not on how to get the sequencing right, but on how to deal with the volatility of short-term capital flows.

In fact, there are often-heard voices advocating temporary controls over capital inflows *a la* Chilean scheme, which should be introduced before a crisis occurs, or controls over capital outflows, *a la* Malaysian way, which should be applied after crisis arises especially if a country is in the transition period of strengthening the institutional and regulatory domestic financial institutions. At the same time, the argument for an enhanced disclosure requirement and changes in current bank lending procedures to hedge funds

³⁾ The recent IMF study concludes that there was no unique path because economies start in different positions. Speed of liberalization did not seem to be a determining factor in the success of capital account liberalization. There were, however, some common elements of a comprehensive program of financial sector reform that would contribute to orderly capital

is also gaining force.

This development of policy interests suggests that the question on sequencing should be dealt with in a rather broadened scope. Indeed, the main purpose of this paper is to argue that the scope should go beyond mere contemplation on carriers of capital flows and comprise considerations on incentives of domestic and international agents who make use of those carriers. In Korea, before the crisis, apparently short-term borrowings had grown faster than foreign direct investment and other long-term borrowings. Hence one may argue that Korea's liberalization policy bore the traditional sequencing problem. However, we will dispute this on the grounds that the view is only touching the surface and discuss implications of the Korean experience on liberalization policy.

2. THEORETICAL DIVIDE: PANIC OR MORAL HAZARD?

Industrial and emerging market economies alike share a common interest in building a strong and safe system for managing global flows of capital. To the extent that they take place in well-functioning, competitive markets and respond to proper price signals, capital flows contribute to an efficient, cross-country allocation of resources and risks. A healthy capacity to mobilize external capital is critical to financing a growing and successful world. In particular, capital account liberalization can provide developing countries an access to foreign capital, increasing the amount of capital available to an economy by narrowing the gap between domestic saving and investment. This is significantly beneficial for capital-scarce developing economies.

However, capital account liberalization also entails risks and potential costs, particularly in the case of short-term flows. Large capital flows, whether inflows or outflows, can complicate macroeconomic management in an economy. Abrupt reversals of capital flows can also create serious liquidity shortages, as shown by the recent turbulence in financial markets in

market liberalization. See IMF (2000).

East Asia and elsewhere. In order to realize the full benefits of capital flows, the risk exposure associated with capital flows should be properly managed. Furman and Stiglitz (1998) blamed East Asian governments for undertaking rapid financial and capital account deregulation without addressing the concomitant need to beef up their supervisory capacity. Rodrik (2000) also asserts that in South Korea and Thailand, as in so many other developing countries, financial liberalization and capital account opening led to financial crisis precisely because of inadequate prudential regulation and supervision. Kane (2000) also attributes policy mistakes to perverse belief that financial deregulation would enable their insolvent banks to grow their way out of trouble. In this regard, one of the central lessons of the financial crises in emerging market economies over the past few years is the importance of prudential management of liquidity and related risks.

From the supplier (creditor and investor) side, on the other hand, the past few years also have reminded us that international capital suppliers often tend to underestimate risks as they reach for higher yields. In other words, international lenders should have as much responsibility for the crisis as do emerging market borrowers, because for every questionable borrower, there is a questionable lender. In hindsight, the failure on the part of lenders and supervisors in the major countries include poor risk management practices, inadequate information as well as inadequate attention to available information, and capital standards that provide unintended incentives to lend to risky borrowers. Such excessive risk taking, combined with high degrees of leverage, can magnify the negative effects of any event or series of events.

Three years after the onset of the Asian crisis, it is perhaps trite to ask a question why investors had held such optimistic expectations in earlier years, and they suddenly lost confidence in 1997. On the euphoria part, the World Bank's 1993 report on East Asia, titled *The East Asian Miracle: Economic Growth and Public Policy*, could be a good example to explain a flavor of the widespread views about the region at that time. That report argued that the strong growth that had been experienced for so long was based on strong fundamentals, at both the macro and microeconomic levels, and sound public

policies.⁴⁾ On that basis, it was not so unreasonable for foreign investors to expect a continuation of strong growth, and associated high investment returns, in the region.

On this view, a long period of rapid growth and high returns led to generate market euphoria about the region, which attract new investors and more capital inflow. Financial deregulation in these economies facilitated the inflow, as did developments on the supply-side, such as the growth of mutual funds and the decline in interest rates in the developed world. There were emerging signs of over-investment and the formation and growth of asset bubbles in several markets in the region in the years leading up to 1997. But while these developments may have been noted,⁵⁾ they did little to deflate the general feeling of optimism about the region.

Over the period 1995-97, however, there was a series of adverse external shocks – particularly a trade-weighted appreciation of the region's currencies vis-à-vis the U.S. dollar, to which they were de facto pegged, rose against the Japanese yen, and a fall in the terms of trade for electronic-goods exporters. These shocks brought into question the sustainability of the currency pegs to the U.S. dollar, undermining the confidence of international investors in the region's prospects, and leading to a sudden withdrawal of their funds. As the currency pegs collapsed, the large stock of unhedged foreign currency denominated borrowings, undoubtedly fueled investors' new-found pessimism and the sense of market panic, making the crisis much more severe than it would otherwise have been.

On the contrary, an alternative explanation for the Asian financial crisis has focused on inappropriate market incentives provided by the government guarantees and rescue packages provided by international financial institutions (IFIs) as well. For instance, the term "moral hazard" has been

⁴⁾ *The East Asian Miracle*, a World Bank study (1993), shows that the East Asian interventionist policy regime was market friendly and as such was not as inefficient as it is often made out to be. The interventionist policies were also in response to coordination problems in the market. Furthermore, East Asian policymakers relied on contests that combined competition with the benefits of cooperation both among firms and between government and the private sectors.

⁵⁾ Krugman (1994) pointed out that East Asia was running into diminishing returns and that rapid growth was only being sustained by massive infusion of capital, much of which came from abroad in the form of short-term credits.

used quite extensively to explain excessive risk-taking behavior by borrowers and creditors prior to the outbreak of the Asian financial crises. In the presence of insurance but unobservable efforts to prevent accidents, the behavior of insured parties can be imprudent because they will not bear the full cost of their action. As moral hazard situations are pervasive in the economy, a similar analogy has been applied to financial crises linking moral hazard to imprudent behavior of borrowers and creditors by presuming the presence of insurers such as government guarantees and even international financial institutions. The moral hazard argument was also used as a convenient line to shift part of the blame away from badly-sequenced and unregulated financial liberalization to insurers, either local governments, international financial institutions, or both (Pereira da Silva and Yoshitomi, 2000).

The moral hazard argument stylized domestic over-lending syndrome as follows. Despite the absence of formal guarantees like deposit insurance schemes, informal or implicit guarantees can play an identical role. The local political economy gives way to this informal insurance from risk that came eventually to be associated with crony capitalism. Over-investment in such a context derives from the distorted incentives that the fraction of guaranteed liabilities in the balance sheets of domestic financial intermediaries lower their cost of funding new investment.

A similar analogy can also be advanced to explain the extensive unhedged borrowing in foreign currency by East Asian corporations and financial institutions. According to this argument (Chinn and Kletzer, 1999), the private sector in the East Asian economies was encouraged to borrow in this manner by the exchange rate stability provided by the quasi-fixed currency pegs to the U.S. dollar that operated in the region. When the countries suffered an adverse external shock, however, the implicit liabilities of the government rose enormously as the possibility loomed large that many private sector loans could not be repaid. Furthermore, as it became more likely that the currency pegs could not be sustained, the large stock of unhedged foreign loans in the economy further raised financial fragility and the implicit liabilities of the government. By this argument, foreign investors eventually became sufficiently concerned about the government's

capacity or willingness to pay out on its rapidly rising contingent liabilities, and hence they withdrew their funds, thereby precipitating the crisis.

International financial support is also considered as a source of moral hazard arising from any public support. A simplistic idea is that large international rescue packages give the impression that international private creditors having excessive risk exposures are bailed out with public money during a crisis from a portion of the losses that they would have otherwise incurred. Hence, an extreme consequence of this view of the moral hazard argument would be a proposal for dissolving or minimizing international financial institutions functioning as quasi-lender of last resort.⁶⁾ In addition, efforts at achieving greater private sector burden sharing are also motivated by the perception that IMF assistance to crisis countries creates a source of moral hazard if it allows private creditors to walk away without bearing any cost of the crisis. Furthermore, because the IMF is almost always paid back, these payoffs are effectively transfers from the taxpayers in the crisis country to international creditors (Eichengreen, 2000).

To the extent that implicit guarantees played a significant role in generating economically wasteful excess capital inflow in the pre-crisis years, as well as the sudden reversals of these flows, the appropriate policy response is to limit these implicit guarantees as much as possible. However, it is also worth noting that governments in almost all countries provide substantial guarantees to the financial system for the sake of preventing the implosion of systemic risks. Governments do not stand by passively in the event of a crisis that threatens the integrity of the domestic financial system. If a systemic financial crisis were to arise in any country, the contingent liabilities of the government would rise enormously, as they did in the East Asian crisis countries.

Pereira da Silva and Yoshitomi (2000) concur with the moral hazard argument and challenge the claim that moral hazard played a major role in the international financial dimension of the Asian crisis. They restrict their

⁶⁾ Most prominently, the Republican-led majority of the Congressionally appointed International Financial Institutions Advisory Commission (known as the Meltzer Commission) issued a report in March 2000, calling for drastically shrinking both the scope of IMF intervention and the role of the World Bank in development finance.

scope to explaining behavioral changes of the loans from Japanese banks to Thailand, Indonesia, Malaysia and Korea and analyze the relevant financial flows in and out of these countries. In their story, competition between financial institutions, between financial outsiders and insiders, compounded by herd behavior by banks can explain most of the East Asian financial bubbles, particularly when the effects of G-7 business and financial cycles are added. They conclude that it is possible to explain quite well without using a moral hazard hypothesis the oversupply of loans by foreign banks. Furthermore, the returned results of a qualitative questionnaire addressed to Japanese Banks confirmed that the idea of government-backed implicit guarantees offered to international creditors are not perceived by Japanese banks to have played a significant role in their lending decisions to East Asia. Conversely, fierce competition with other banks (particularly European) and herd behavior did.

As previously mentioned, the extensive unhedged foreign borrowing undertaken by East Asian corporations and financial institutions contributed to the severity of the domestic recession that followed hard on the heels of the currency collapses. It has been widely argued that this unhedged borrowing was encouraged by the exchange rate stability provided by the quasi-fixed exchange rate regime operating in the region. The obvious policy implication, drawn by many economists, is that more exchange rate flexibility would reduce the extent of unhedged foreign borrowing, thereby reducing the financial fragility of these economies. This argument may well be right. In fact, most crisis countries, except for Malaysia, have adopted free floating exchange rate regime in the course of currency turmoil. As their currencies were allowed to fluctuate on a day-to-day basis, banks and firms became more cautious about the exchange risks.

However, the infrastructure of the foreign exchange market in most East Asian countries is still underdeveloped. As the free floating exchange rate regime was introduced, the Korean government, for instance, also endeavored to develop the infrastructure of the foreign exchange market through various means. In order to broaden and deepen thin and shallow foreign exchange market, the government has lifted various regulations on the speculative trading. Volatility could be a necessary evil so as to induce more market

participants interested in speculative trading.

While foreign branches play a role as market makers in Korea, domestic banks as foreign exchange traders do not receive enough credit from those foreign branches because the credit ratings of most domestic banks are still below non-investment grade. This limited access of domestic banks to inter-bank forward or swap transactions has even aggravated foreign exchange trading in the customer markets. Since domestic banks have to square the foreign exchange positions through, such as swaps, they have been reluctant to provide forward contracts to domestic companies having hedging demand. Most companies should provide some form of guarantee such as deposits or securities, thereby extremely limiting accessibility of small and medium-sized exporters to the currency hedging markets. In addition to the creditworthiness of domestic banks and companies, most companies do not have relevant in-house human resources to participate in currency trading. Although they recognize the need for covering the exposures to the exchange rate risk, market participation also incurs additional and sometimes unbearable costs.

Economies with open capital account had better adopt a floating exchange rate regime. However, freely floating exchange rates have often been excessively volatile, sometimes subject to prolonged misalignment and overshooting. These attributes are likely to be particularly disruptive for developing economies, which tend to have poorly developed hedging markets for the management of exchange rate risk. In order to lower excessive volatility, a combination of restrictions on foreigners' capacity to borrow domestic currency, and active commitment to use monetary policy and foreign exchange market intervention could be desirable as Singapore provides one possible model

Finally, the moral hazard argument for dissolving or minimizing international financial institutions is a very dangerous idea. If the global financial community really wants to reduce moral hazard on the private creditors' side, measures to bail-in private creditors need to be in place to manage a quick and orderly execution of debt relief and restructuring. Eliminating the IMF would have severe consequences for the real economy of countries experiencing crises rather than resolving the problems. By not

providing liquidity support, there is an increasing systemic risk of domestic credit crunches, and ensuing severe recession, and social and political meltdown. Furthermore, solvent borrowers, faced with temporary liquidity shortage, would eventually become insolvent in the absence of temporary liquidity assistance by the IMF or other financial arrangements. For the sake of avoiding moral hazard, we do not need to pay unbearable price.

3. CAPITAL ACCOUNT LIBERALIZATION IN KOREA

3.1. Liberalization in 1980s

Throughout 1980s, the policy of the Korean government on capital flows has been residual. Under the managed exchange rate system, level of the exchange rate and the corresponding current account balances were determined autonomously. Then, policies on capital flows were used to accommodate current account balances.

In the first half of the 1980s, various liberalization measures were undertaken to induce capital inflows for the purpose of financing current account deficits. In particular, the Korean government encouraged domestic banks to borrow from abroad. As a result, Korea saw significant net capital inflows, most of which consisted of bank borrowings. However, in the latter half of the 1980s, the policy stance toward capital flows dramatically changed as the current account balance began to record a large surplus.⁷⁾ In order to maintain export competitiveness by mitigating the appreciation pressure of the Korean won-dollar exchange rate, the government resorted to direct capital control. Commercial loans by domestic firms, with the exception of public enterprises, were prohibited. The overseas issuance of bonds and depository receipts by residents was also strictly regulated. In addition, banks were encouraged to reduce their exposure to external debt.

However, gradual movement toward capital account liberalization was not

⁷⁾ During the second half of the 1980s, Korea's trade surplus with the US exploded. It rose to USD 8.6 billion by 1988 compared to only USD 763 million in 1982.

absent. After three consecutive years of current account surplus, Korea formally accepted the obligations of Article VIII, Sections 2-4 of the IMF's Articles of agreement. This move required Korea to eliminate its remaining restriction on payments and transfers for current account transactions. With limited but gradual capital account liberalization, the Korean government also found it increasingly more difficult to manage the multiple currency basket peg (MCBP) exchange rate system, which had been introduced in March 1980.⁸⁾ In the context of the standard Mundell-Fleming model, as financial capital mobility increases, managing a pegged or targeted exchange rate becomes increasingly inconsistent with an independent monetary policy, since sterilization of capital inflows through sales of securities becomes more costly (Chinn and Faloney, 1998). Thus, in March 1990, the Korean government adopted a variant of the managed floating rate system, which allowed for a more market-based determination of the exchange rate.

3.2. Liberalization in 1990s

As pressures for liberalization were growing internally as well as externally, the Korean government began taking a more active stance than ever in 1980s. A significant step toward capital market opening was taken in January 1992, when foreigners were allowed to purchase Korean stocks up to 3 percent of the outstanding shares of each company per individual, but no more than 10 percent of a company in total. Furthermore, the Korean government, in June 1993, announced a blueprint for the liberalization and opening of the financial sector, which aimed at substantial progress in the

⁸⁾ The MCBP system is based upon the formula, which reflects changes in the special drawing rights (SDR) basket and the independent basket as well as the "policy factor." The composition of the SDR basket, which was composed of a number of foreign currencies (originally 16 but eventually watered down to the US dollar, Deutsche mark, Japanese yen, British pound and the French franc), was determined by the IMF every 5 years. However, the composition of the independent basket was never disclosed. It is generally believed that it consisted of the currencies of Korea's major trading partners, namely the US, Japan, Germany and Canada. Even less is known about the last variable, the "policy factor." This factor ambitiously attempted to fill in the blanks and provide the inputs necessary to have exchange rate reflect reality. Analysis of the exchange rate over the MCBP period (March 1980 – February 1990) suggests that the "policy factor" was the most influential part of the formula. See Kwack and Kim (1990) and Kwack (1989).

deregulation of the financial markets. The plan envisaged further easing requirements for foreign exchange transactions, widening the daily won-dollar trading margins, expanding limits on foreign investment in the stock market, and permitting long-term commercial loans.

Despite a series of deregulatory measures, the Korean government still maintained a gradual approach and a considerable amount of capital control remained. For example, the opening of the bond markets was given special attention, because there were large interest rate differentials. And in general, while most capital outflows were liberalized, capital inflows, in the form of foreign portfolio investment in domestic securities and credits from abroad to non-banks, remained subject to various ceilings and certain other restrictions. This asymmetric position was justified by the concern that the potential problem for the Korean economy was surge of capital inflows. (Table 1 shows current account balances and capital account indicators since 1992.)

Table 1 Major International Transaction Indicators

(unit: USD billion)

	1992	1993	1994	1995	1996
Current Account Balance	-4.2	0.4	-4.5	-8.9	-23.7
Long-term Capital	7.2	8.9	5.9	7.8	11.9
Short-term Capital	1.1	2.0	3.2	5.6	5.4
Overall Balance	4.9	6.5	2.8	3.0	-5.7

Source: The Bank of Korea.

The cautious approach toward capital market opening continued when Korea joined the OECD in 1996. The Korean government maintained many reservations to the code of liberalization of capital movements and current invisible operations. According to the membership negotiations, the government was reluctant to liberalize the capital account because of its concern about a dramatic increase in foreign capital inflows due to the interest rate differentials. The government had thus planned to delay liberalizing the capital account until the interest rates would significantly converge.

In sum, most of capital flows were subject to various restrictions. However, it is notable that there were a few exceptions where liberalization went on more rapidly. The first was trade related short-term financing for

domestic firms. Restrictions on deferred import payments and the receipts of advance payments for exports were lifted step by step without additional quantity control. The second was short-term foreign currency borrowings of domestic banks, and the third was the issuance of Korean firm's securities in the foreign capital market and offshore borrowings. Finally, control over overseas direct investment by domestic firms was also relaxed.

3.3. Capital Inflows in 1990s

Despite continued extensive capital controls, a large interest rate differential between home and abroad, coupled with the bright prospects of the economy, have made Korea one of the most attractive markets among the emerging economies to foreign investors. Furthermore, even the partial nature of capital account liberalization undertaken during the pre-crisis period (mid-1990s) triggered massive capital inflows.

For the stock market, the cumulative net inflow of portfolio investment during 1992-1996 was USD 16.3 billion. As of the end of 1996, the share of foreign ownership in the Korean stock market has risen to 10.5 percent in the market value.

Table 2 Trend of Foreign Portfolio Investments (Net Inflows)

(unit: USD million)

	1992	1993	1994	1995	1996	1997	1998
Stocks	2034.5	5696.5	1960.3	2203.8	4373	777.4	3988.1
Bonds	0	0	30.3	17.2	15.9	197.5	227.6

Note: Only domestic stocks and bonds purchased by non-residents are reported.
Source: The Bank of Korea.

However, stock investment by foreigners explains only the limited portion of capital inflows. As seen Table 3, debt instruments accounted for the bulk of total foreign portfolio investment, particularly since 1995. Since the domestic bond market was opened to foreign investors after the 1997 crisis, foreign investors purchased foreign currency denominated debt securities issued abroad by residents in Korea. In this regard, capital outflows in the

type of foreign portfolio were not a major triggering factor in the case of Korean crisis.⁹⁾ Thus, "hot money and hedge funds" were not severely blamed in Korea as much as in other Asian countries such as Malaysia, Hong Kong, and Taiwan.¹⁰⁾ Furthermore, the foreign exchange controls were reasonably stringent so that foreign speculators found it difficult to attack the Korean currency. Instead, the Korean government substantially accelerated its ongoing capital account liberalization plan to attract more foreign capital inflows after the crisis broke out.

As also found in Table 3, the major portion of the increase in foreign capital inflows was the short-term external borrowing by the banking sector. Consequently, the short-term external debt grew much faster than long-term debt throughout the years, and the financial sector became the major holder of external debts. Out of the total increase in external debt during the three years (1994-96), the banking sector explains about 70 percent. The remaining 30 percent reflect growth of the corporate sector's external debt, mainly related with trade credits.

Table 3 Size and Structure of Capital Inflows

(unit: USD million)

	1993	1994	1995	1996	1997
Equities	6,615	3,614	4,219	5,594	3,102
Debt Securities	3,938	4,534	9,656	15,229	9,444
Foreign Credits to Corp.	1,969 (1,141)	3,058 (-108)	4,438 (-13)	6,242 (13)	1,165 (148)
Foreign Credits to Bank¹	891 (825)	9,670 (1,633)	15,352 (5,088)	17,386 (8,080)	-6,205 (6,220)
Fund raised in International Market²	3,011	1,671	2,260	2,632	5,008

Note: () means long-term.

1. Net increase based on the standard of the World Bank.

2. Issuance of securities by private corporations.

Source: The Bank of Korea.

⁹⁾ In case of Mexican crisis in December 1994, short-term securities investment, especially Tesobonos, by mutual funds and institutional investors withdrew their investment quickly.

¹⁰⁾ When Thailand crisis broke out in July 1997, Prime Minister Mahathir Mohamad launched a bitter attack on "rogue speculators."

Table 4 External Debt by Sector (Stock)

(unit: USD billion)

	1992	1993	1994	1995	1996	1997
Public Sector	5.6	3.8	3.6	3.0	2.4	22.3
Long-term	5.6	3.8	3.6	3.0	2.4	22.3
Short-term	0	0	0	0	0	0
Corporate Sector	13.7	15.6	20.0	26.1	35.6	46.2
Long-term	6.5	7.8	9.0	10.5	13.6	25.3
Short-term	7.2	7.8	11.0	15.6	22.0	20.9
Financial Sector	23.5	24.4	33.3	49.3	66.7	58.4
Long-term	12.2	13.0	13.9	19.6	27.7	31.0
Short-term	11.3	11.4	19.4	29.7	39.0	27.4
Total (A)	42.8	43.9	56.8	78.4	104.7	126.8
Long-term	24.3	24.7	26.5	33.1	43.7	78.6
Short-term	18.5	19.2	30.4	45.3	61.0	48.2
A/GNP (%)	14	13.3	15.1	17.3	21.8	28.6

Source: Ministry of Finance and Economy.

In fact, short-term foreign currency liabilities of the Korean banks were much larger than reflected in capital inflows. As part of the liberalization measures, banks were allowed to open and expand operations of overseas branches. By exploiting the foreign capital channeled through overseas branches, banks actively operated foreign currency denominated business through domestic branches. This resulted in large foreign currency liabilities of overseas branches comparable to those of domestic branches as vividly shown in Table 5.

Table 5 Foreign Currency Liabilities of Korean Banks

(unit: USD billion)

	1992	1993	1994	1995	1996	1997
Domestic Branches	15.7	16.3	22.6	36.3	50.7	387.9
Foreign Branches	20.1	23.1	31.7	41.3	52.9	312.5
Total	35.8	39.4	54.3	77.6	103.6	700.4

Source: Ministry of Finance and Economy.

Finally, another important feature of capital inflows in Korea is that Korea does not attract a large amount of foreign direct investment (FDI) relative to the size of its economy. Table 6 shows that Korea's low FDI stock to GDP

ratio stands out among the other Asian countries that tend to exhibit a higher ratio as well. Capital inflows in the form of FDI typically represented only a limited share of total capital inflow into Korea compared with portfolio investment and other flows. The comparison with other Asian countries vividly highlights this fact.

Table 6 FDI Stock as a Percentage of GDP

	1980	1985	1990	1995	1997
China	-	1.5	5.2	18.8	23.5
Hong Kong, China	158.6	138.4	75.0	50.6	54.6
Indonesia	14.2	28.6	36.6	25.6	28.6
Korea	1.8	2.3	2.3	2.3	3.5
Malaysia	21.1	23.7	24.1	31.8	38.1
Philippines	3.8	8.5	7.4	8.2	10.2
Singapore	52.9	73.6	78.2	71.2	81.6
Taiwan	5.8	4.7	6.1	6.0	7.0
Thailand	3.0	5.1	9.6	10.5	8.5

Source: World Investment Report 1999.

3.4. What Went Wrong?

Large capital inflows mostly through debt instruments with high domestic savings helped fuel strong investment and growth. These capital flows also reflected favorable conditions in the global financial market, including low interest rates and weaknesses in risk management in industrial countries. Financial institutions played an important role in intermediating these inflows or by providing guarantees on direct foreign borrowing by corporations. At that time, it was widely perceived that the capital inflows were attributable to bright investment prospects associated with a stable macroeconomic environment and high growth performance.¹¹⁾

Traditionally, macroeconomic boom coupled with private capital inflows is dangerous because it is prone to entail external imbalances and overvalued

¹¹⁾ Standard and Poor's upgraded Korea's sovereign credit rating in May 1997. This also contributed to further inflows of foreign capital into Korea.

exchange rates. However, it is difficult to attribute the Korean crisis to exchange rate misalignment. After the mild depreciation in the early 1990s, massive capital inflows during 1994-96 put appreciation pressures on the Korean won. To offset the pressures, the government relied on restrained sterilization, and managed to curb the abrupt appreciation of the won and resultant increase in the current account deficit. During early 1994 to mid 1995, the exchange rates mildly appreciated. However, the current account balance sharply deteriorated from mid 1995, resulting in the depreciation of the Korean won by offsetting the downward pressures of the capital account surplus. The Korean economy experienced large negative terms of trade shock in the second quarter of 1996, which caused a significant depreciation pressure on the Korean won. As a result, the current account deficit in 1996 recorded the historical high – USD 23.7 billion.

Since all the regional currencies – except China's renminbi and the Hong Kong dollar - lost value after the crisis, many economists and policy makers argued that these regional currencies were overvalued on the eve of the crisis. Although the lack of an operational definition of overvaluation is still troubling,¹²⁾ the price-based real effective exchange rates in Korea had been around the equilibrium until 1994, but was being *slightly* overvalued on the eve of the 1997 crisis according to our calculation in Table 7.¹³⁾

Table 7 Trend of Real Effective Exchange Rates

1990.1	1991.1	1992.1	1993.1	1994.1	1995.1	1996.1	1997.1	1997.4
111.39	104.62	100.26	100	97.86	92.02	90.51	93.66	96.06
1997.7	1997.10	1998.1	1998.4	1998.7	1998.10	1999.1	1999.4	1999.7
95.50	99.56	119.58	109.64	113.21	107.26	105.55	103.89	105.17

Note: the real effective exchange rates are calculated based on trade-weight, consumer prices index, and January 1993 as the basis year.

Rather than volume imbalances combined with unsustainable current account deficits, risks having led to the eruption of the Korean crisis were

¹²⁾ On the definition of overvaluation, see Chinn (1998), Milesi-Ferretti and Razin (1996), and Williamson (1994).

¹³⁾ Radelet and Sachs (1998) reported that real effective exchange rate appreciated by about 12 percent in Korea between 1990 and early 1997. Chinn (1998), interestingly, reported that the Korean won was undervalued even before its recent discrete drop in value.

with liquidity imbalances. What mattered was too much of short-term capital inflows rather than capital inflows in general. And more correctly, rapidly rising short-term foreign currency liabilities taken by the Korean banking sector provided the source of the problem.

That is, as in Lane *et al.* (1999), a key element of vulnerability associated with capital inflows was the prevalence of unhedged short-term foreign currency borrowing. This was to some and important extent a prudential matter, as it was reflected in currency and maturity mismatches in the portfolios of banks and other financial institutions. While foreign debt as a percentage of GDP increased in Korea, short-term debt rose considerably faster than total debt. Growth in short-term foreign liabilities also outpaced growth in available international reserves and created the potential for liquidity problems. In Korea, reserves had declined to about one third of short-term debt by the end of 1996.

Table 8 External Debt and Foreign Reserves

(unit: USD billion, %)

	1992	1993	1994	1995	1996	1997
Short-term Debt (A)	18.5	19.2	30.4	45.3	61	48.2
Total Debt (B)	42.8	43.9	56.8	78.4	104.7	126.8
Foreign Reserves (C)	17.1	20.2	25.6	32.7	33.2	20.4
(A)/(B) (%)	43.22	43.74	53.52	57.78	58.26	38.01
(A)/(C) (%)	108.19	95.05	118.75	138.53	183.73	236.27

Source: The Bank of Korea.

Also it partly explains why volume imbalances did not show up. While Korean banks rapidly expanded their foreign currency operations, the magnitude of the expansion was not correctly captured in domestic monetary indicators. This was so because about half of the foreign currency operations of the banking sector was handled by overseas branches whose transactions were not reflected in domestic monetary indicators. Had the short-term external liabilities of overseas branches been taken into account, the foreign reserves would have been said to be far less sufficient than was the case in terms of buffer against possible liquidity runs by foreign creditors. Moreover, the management of foreign currency liquidity risks at the

individual bank level was not adequate enough to forestall the liquidity crisis either. Most financial institutions, particularly merchant banks and overseas branches of commercial banks, were suffering from a serious maturity mismatch problems as the crisis unfolded.

Table 9 Short-Term Foreign Currency Liabilities of the Financial Sector

(unit: USD billion)

	1992	1993	1994	1995	1996	1997
Short-term External Debt	11.3	11.4	19.4	29.7	39.2	27.4
Short-term Liabilities of Overseas Branches	18.5	21.1	28.0	33.4	39.0	20.3
Total	29.8	32.5	47.4	63.1	78.2	47.7
Foreign Reserves	17.1	20.2	25.6	32.7	33.2	20.4

Source: The Bank of Korea.

3.5. Causes of Liquidity Imbalances or Maturity Mismatch

Why did short-term foreign currency liabilities grow to the extent of risking a crisis? To put it in a different way, which aspects of the liberalization policy might be taken responsible for it? The answer seems concerned with not what the liberalization policy did, but what the policy did not.

Although the amount of short-term foreign currency liabilities by the Korean banks had jumped since 1994, their over-reliance on short-term foreign debts was nothing new. As Table 10 shows, the shares of short-term foreign currency liabilities of the banks remained constant high at around 65-70 percent since 1992, for which the earliest data is available. It implies that the Korean banks were accustomed to the associated risk taking well before the surge of capital inflows and that underlying factors for the behavior of the banks must have been in place all along.

Table 10 Ratios of Short-term Foreign Currency Liabilities of the Korean Banks

(unit: %)

	1992	1993	1994	1995	1996	1997
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Domestic Branches	48.1	46.7	58.3	60.2	58.5	44.0
Foreign Branches	92.0	91.3	88.1	81.1	73.9	51.2
Total	68.3	68.4	72.8	69.7	65.3	46.5

Source: The Bank of Korea.

What could be the factors? One possible explanation is based on implicit insurance provided by the government. Dooley and Shin (1999) argue that in the presence of the insurance, the Korean banks have chosen the more risky liability structure to maximize the value of the insurance, while foreign creditors also preferred demand deposit-type contracts that provided them with the insurance.¹⁴⁾ Accordingly, they conclude that the Korean banks enjoyed the insurance by over-taking apparently cheap short-term liabilities. However, this hypothetical implicit insurance model does not provide sufficient evidence on the Korean banks' risk-taking behaviors.

A huge part of maturity mismatch of external liabilities lies with asymmetric regulation on short-term and long-term borrowings (Moon and Rhee, 2000). The government boosted incentives for short-term debts by making it mandatory to notify regulatory authorities of long-term external debts, whereas short-term debts were regarded as related trade financing and therefore were not especially regulated under the Foreign Exchange Management Law. Thus, banks and firms had been operating on a long-term basis with short-term foreign borrowings, leading to significant discrepancy in the maturity structure.

Furthermore, maturity mismatch was more serious for merchant banks.¹⁵⁾

¹⁴⁾ Prudential regulations sometimes provide an additional stimulus for foreign short-term interbank lending. For example, the 1988 Basle Capital Accord requires only a 20 percent risk weight for the computation of the capital adequacy ratio for short-term interbank exposure to non-OECD countries, while exposures over one year have to be weighted at 100 percent. Moreover, the same rules discriminating in favor of interbank lending by applying the concessionary 20 percent risk weight to interbank exposures, as opposed to corporate loans or bonds. See Yeyati (1999).

¹⁵⁾ Most merchant banks in Korea started as investment banks after the Decree of August 3, 1972, to provide legitimate channels to utilize black market funds. They were modeled after the British merchant banks but were also permitted to engage in the financing of medium- and long-term equipment investment. Later in 1994 and 1996, the 24 existing investment banks were allowed to become merchant banks, joining the 6 existing ones. Several merchant banks, owned by Chaebol, served as an important vehicle for raising the fund required for Chaebol's voluminous investment, thereby lacking in adequate loan assessment to their parent companies.

For example, the liquidity ratio in foreign currency for merchant banks was only 3-6 percent for all the periods up to the financial crisis. 30 merchant banks heavily engaged in offshore operations, by borrowing cheap short-term Japanese funds from Hong Kong to finance mostly long-term investment projects. With 80 percent short-term debts put into 70 percent long-term assets, the maturity mismatch blew up when Korea's credibility plummeted after the Dongbang-Peregrine fiasco. Pressured to get the foreign currency to repay their debts, merchant banks ultimately ended up buying foreign currency on the spot market with won-denominated call loans from commercial banks (Chung, 1999). Furthermore, those merchant banks were not properly supervised. Neither unified accounting standards nor standards for classifying non-performing loans existed, and supervision had been perfunctory at best. This lax supervision allowed merchant banks to enjoy a freedom without any discipline. When Korea went into the IMF structural adjustment program, merchant banks were the first to go through restructuring because their voluminous short-term external debts and imprudent investments were inconsistent with the customary practices of the world financial market.¹⁶⁾

Table 11 Foreign Currency Liquidity Ratio

(unit: %)

	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: Bank of Korea.

4. POST-CRISIS LIBERALIZATION

The Asian crisis started on July 2, 1997 with Thailand's sudden decision to float the baht. On July 11, about a week later, the Philippines and Indonesia respectively widened the trading bands of their currencies (peso and rupiah)

¹⁶⁾ As the first step of the penal procedure, the Korean government had suspended the operations of 14 most unhealthy merchant banks in December 1997.

from 8 percent to 12 percent. On July 14, Malaysia abandoned the defense of the ringgit. Indonesia finally abolished its managed floating system on August 14. In the midst of this economic maelstrom, the Korean won also quickly depreciated, following a futile currency defense that costed Korea most of its foreign reserves. This forced Korea to seek financial assistance from the IMF on November 21, 1997. Korea widened its won trading band from 2.25 percent to 10 percent on November 19, and finally abolished its band and allowed the won to float on December 16.

With the free floating exchange rate system in place, the Korean government also substantially accelerated its capital account liberalization. Under the IMF program, the Korean government agreed to undertake bold liberalization measures; in fact, the Korean government has taken much of the initiative behind this. Not only were all of the capital markets, including the short-term money markets, completely opened to foreigners.

Under the initial IMF program, set out in early December 1997, the government raised the ceiling on overall foreign ownership of stocks to 50 percent in 1997 from the previous ceiling of 26 percent. The individual ceiling was also raised from 7 percent to 50 percent. These ceilings were lifted completely on May 25, 1998. All regulations on foreign purchases of debt securities were eliminated in December 1997. As of December 1997, all domestic enterprises, regardless of size, were allowed to borrow without limit from overseas as long as the maturity does not exceed one year. All the short-term money market instruments, such as commercial paper and trade bills, were also completely liberalized on May 25, 1998, and this has brought Korea's capital markets on a par with the level of openness of the advanced economies.

The liberalization of restrictions on capital movements was accompanied by a relaxation of rules governing the use of foreign exchange. The Korean government established a simple and transparent framework to replace the cumbersome laws and regulations that had governed such transactions. The new Foreign Exchange Transactions Law replaced the old Foreign Exchange Management Law, and took effect in April 1999. In particular, it replaced the positive list system with a negative list, which allows all capital account transactions except for those expressly forbidden by law. While foreign

exchange dealings in the past had to be based on *bona fide* real demand, speculative forward transactions are now permitted. This far-reaching liberalization is important in bringing Korea closer into line with the market-oriented principles adopted in more advanced foreign exchange markets.

The new system is to be implemented in two stages, April 1999 and the end of 2000, in order to allow sufficient time to improve prudential, regulatory and accounting standards before full liberalization. The first stage of the new system eliminated the one-year limit on commercial loans while liberalizing various short-term capital transactions by corporations and financial institutions. Moreover, foreign exchange dealing was opened to all financial institutions.¹⁷⁾

The government also implemented appropriate measures that could counter excessive instability in the foreign exchange market caused by further liberalization measures. As of January 1999, the supervisory authority on domestic financial institutions' soundness in foreign assets and liabilities was transferred to the Financial Supervisory Commission, making it solely responsible for the nation's financial supervisory function. The required foreign currency liquidity ratio of more than 70 percent for foreign exchange banks has been applied to all overseas subsidiaries and offshore accounts of domestic financial institutions since July 1998.

By establishing a comprehensive computer network system that can oversee all foreign exchange transactions, including currencies, stocks, and futures markets, the government is now undertaking a close monitoring. With this monitoring system in place, the government also established an international financial center to operate an "early warning system" to foresee a possible currency crisis and to make appropriate counter measures. To limit the risk of a systemic crisis, the liberalization of short-term capital transactions has been allowed only for "financially-sound enterprises." With the abolition of *bona fide* principles in forward contracts, the government decided to maintain a restriction on non-residents' borrowing in the Korean won to a certain limit. The new law also establishes a safeguard measure to

¹⁷⁾ Financial institutions satisfying the government-set requirements, such as necessary computer system, will be allowed to conduct foreign exchange dealing businesses.

be used in case of an emergency.

In tandem with the first stage of foreign exchange liberalization, another two important institutional changes are worthy of note. First, the commercial foreign exchange broker system was introduced, in January 1999, by allowing private organizations to establish brokerage firms. Also the Fund Trading Center, the public foreign exchange broker which enjoyed the monopoly position in interbank trading, became a commercial company. Currently, two commercial foreign exchange brokers are competing in interbank transactions. However, as trading volume grows in the Seoul Foreign Exchange Market, more brokers are expected to enter the brokerage market.

Second, currency futures and options were introduced in the Pusan Futures Market in April 1999 so that companies and financial institutions exposed to foreign exchange risks could effectively use these hedging instruments.¹⁸⁾ Due to the fact that only large companies with good credit ratings could gain access to forward foreign exchange contracts, most small and medium-sized companies could not find relevant risk-hedging instruments in the foreign exchange market before the currency futures were introduced.

As described above, the Korean government opted for additional big bang in capital account liberalization. This once again implies that the Korean crisis could be prevented if appropriate prudential regulations were effectively implemented and enforced. The badly sequenced capital account liberalization itself was not a major triggering factor for the Korean crisis. The Korean government was very cautious in implementing capital market opening, but it was not very cautious in supervising the banks. Avoiding future financial crises requires appropriate prudential regulation and enhanced risk management practices. Premature liberalization of capital account without proper regulatory framework and effective enforcement of

¹⁸⁾ Currency hedging products have usually emerged as countries have moved from managed floating regimes to more fully floating ones. Currency futures, since they are traded on organized exchanges, give benefits from concentrating order flows and providing a transparent venue for price discovery, while over-the-counter forward contracts rely on bilateral negotiations at often unpublished prices. However, despite the growing demand for such products, currency futures contracts are still in the early stages of development. See Jochum and Kodres (1998) for more elaboration on the introduction of futures on emerging market currencies.

improved regulations is likely to lead to "double mismatch" problem. Accordingly, more impending policy challenges are today how to construct more effective regulatory framework for bank supervision and encourage financial institutions to adopt better risk management practices. Unless supervisory authorities are judged too weak to do a decent job of prudential supervision over domestic financial institutions, the conventional wisdom of capital controls will remain valid.

5. LESSONS AND POLICY IMPLICATIONS

5.1. Strengthening Prudential Regulation and Supervision

In Korea, the problem of under-capitalization of banks was neither fully acknowledged nor properly addressed. The BIS capital adequacy requirement was introduced for all commercial banks in 1992. Banks were required to meet the minimum ratio of 7.25 percent by the end of 1993 and the full 8 percent standard by the end of 1995. It appeared that banks had no difficulty in satisfying the BIS ratios of 16 nationwide commercial banks on average ranged around 9 percent. Even at the end of 1997, immediately after the crisis, that figure remained at 8.67 percent. Moreover, those five non-viable banks that were closed in June of 1998 by the Financial Supervisory Commission (FSC) were reported to have the BIS ratios of 7.4 percent to 9.6 percent as of the end of 1997.

However, the reported BIS ratios did not accurately reflect the true state of banks' financial soundness for various reasons. More importantly, Korea's standards with respect to risk management fell short of global standards. Inadequate loan loss provisions, partial recognition of stock revaluation losses, and loose loan classification standards and accounting rules led to a discrepancy between official numbers and the actual state of the banks' health.

Establishing a system of prudential regulation and adequate supervision must be taken as an essential prerequisite for capital market liberalization. Indeed, in Korea, expansion of domestic banks' overseas operation lacked in appropriate supervision. No regulation existed on foreign currency liquidity

risk management by mid of 1997 in contrast to domestic currency operation.

However, for every questionable borrower, there must be a questionable counterpart. As pointed out in Yeyati (1999), governments in lender countries should also penalize high-risk investments abroad by incorporating a realistic assessment of the associated credit risk. Otherwise, government in borrower countries may be forced to assume a more active stance to prevent over-borrowing (or over-lending) and to avoid the adverse impact that massive inflows of funds may have on the financial soundness of the country.

5.2. Strengthening Corporate Governance

Overseas direct investment of Korean firms became active in the 1990s. And in fact, strong overseas investment of Korean firms constituted the growing assets in the balance sheets of overseas branches of banks. In other words, expanded liabilities of overseas branches of banks were tantamount to rising overseas investment of Korean firms. Notably, suspicion has been raised that this investment behavior of firms may be an outgrowth from the *band wagon effect*. Large conglomerates pursued overseas direct investment most vigorously in order to cope with rising domestic factor costs in the one hand, and to achieve international prestige on the other hand. However, due deliberation of the profitability of the overseas investment projects were somewhat lacking.

After the crisis, it was recognized that the vulnerabilities in the financial and corporate sectors in Korea were attributable, in part, to deficiencies that undermined governance and market discipline. In order to promote corporate governance, the Korean government has improved corporate disclosure requirements and accountability to shareholders, as well as the transparency of economic and financial data.

5.3. Promoting Foreign Direct Investment

Foreign direct investment (FDI) flows, in general, do not enter any financial market. They are basically internal to each firm, and an inflow is usually irrevocable, or only partly revocable if possible. In this regard, FDI

has been regarded as the most stable and dependable source of foreign capital inflows.

Although the Korean government made efforts to liberalize FDI, its basic stance towards FDI had remained passive until the crisis broke out. However, the crisis became a momentum to change the government's long-cherished passive position to active one. As a result, the government enacted the Foreign Investment Promotion Act. This new legislation focuses on creating an investor-oriented environment by streamlining FDI procedures, expanding investment incentives and establishing an institutional framework for investor relations, including one-stop services. The Korean government also undertook full-fledged liberalization in the area of hostile cross-border mergers and acquisitions and foreign real estate ownership (Kim, 1999).

A modest net increase was recorded in 1997, despite a strong upward trend in the first half of the year, due to the tapering off of FDI inflows noticeable towards the end of 1997. Picking up markedly during the spring and summer of 1998, FDI inflows reached a record of USD 5.2 billion for 1998 as a whole. In 1999, this momentum continued, with net FDI inflows of USD 10.5 billion.

5.4. Orderly Liberalization: How to Sequence the Capital Market Opening

As explained above, the most serious sequencing problem was to liberalize short-term financing through banks rather than long-term financing, and to underestimate the potential devastating impact on the economy when massive capital inflows have come to reverse. Although long-term capital inflows were rather repressed during the pre-crisis period, it would be an exaggeration to say that short-term capital movements were liberalized greatly. Neither firms nor banks could sell their short-term debt instruments in domestic currency to foreigners. Only liberalized were trade-related financing of firms and short-term foreign currency borrowings of banks. The intention was clear: liberalize first capital flows that are only trade related. Then, how about short-term foreign currency borrowings of banks?

Should the Korea government have restricted short-term borrowings of banks? Probably not. It is extremely costly to control short-term transactions of banks. What was lacking was financial supervision and appropriate risk management of external debt. Without strengthening banking supervision and enhancing corporate governance, corporate debt crisis will be an inevitable outcome. In this regard, the main lesson of the Korean crisis is not the sequencing problem in the capital market liberalization, but the structural deficiencies as prerequisites of capital market liberalization.

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