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Financial Repression, Liberalization, Crisis and Restructuring: Lessons of Korea's Financial Sector Policies

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Financial Repression, Liberalization, Crisis and Restructuring: Lessons of Korea's Financial Sector Policies

Yoon Je Cho

November 2002

In the last 50 years, Korea's financial sector has gone through heavy repression, rapid liberalization, deep crises and finally massive restructurings. However, there is no optimum financial sector policy to be applied at all times and system inertia often prevents the timely adjustment of policy to changed circumstances.

Although no agreed international best practice has yet been found to guide successful and rapid economic expansion, financial sector reform should always be tuned to progress in the real sector and the capabilities of financial market infrastructure.

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**Financial Repression, Liberalization,
Crisis and Restructuring: Lessons of
Korea's Financial Sector Policies**

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PREFACE

The ADB Institute aims to explore the most appropriate development paradigms for Asia composed of well-balanced combinations of the roles of markets, institutions, and governments in the post-crisis period.

Under this broad research project on development paradigms, the ADB Institute Research Paper Series will contribute to disseminating works-in-progress as a building block of the project and will invite comments and questions.

I trust that this series will provoke constructive discussions among policymakers as well as researchers about where Asian economies should go from the last crisis and recovery.

Masaru Yoshitomi
Dean
ADB Institute

ABSTRACT

Korea's financial sector has gone through heavy repression, rapid liberalization, deep crises, and massive restructuring during the last half century. This paper discusses Korea's financial sector policies in relation to its real sector development, and attempts to draw some lessons from this dynamic experience. The main lessons may be summarized as follows.

There is no best financial sector policy and practice that can be applied at all times. Financial sector policy is one of the most important policy measures that a state can employ for the goal of economic development. This policy may evolve gradually—in accordance with the development of economic circumstances—with ultimate evolution to a fully market-oriented policy. However, the recent global economic environment suggests that interventionist policies should be short-lived. As the domestic economy becomes more sophisticated and more integrated into the global economy, the negative impacts of such policies become more profound.

However, system inertia often prevents timely adjustment of policy to one more suited to a changed environment. The outcomes in the real sector of a controlled financial sector, such as high corporate leverage ratios, also prevent the rapid liberalization of financial sector policies. While leaving the distorted incentive structure in the real sector intact, financial liberalization can even intensify the distorting effects of real sector problems. Thus, the sequencing and speed of financial reforms (and more broadly economic transition) becomes a key issue. Financial sector reform should be tuned to the progress of real sector reforms and the development of the financial market infrastructure and regulatory capacities. This sequencing and policy coordination issue is important not only in the process of financial liberalization, but also in the process of financial restructuring.

The countries of East Asia, particularly Korea and the PRC, are facing the challenge of how to implement 'condensed liberalization' and successful economic transition after having achieved 'condensed economic growth,' in this rapidly integrating global economy. No 'international best practice' has yet been established to guide successful and rapid economic transition.

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Executive Summary

Korea's financial sector has gone through heavy repression, liberalization, crisis, and restructuring during the last half century. Financial sector policy played a key role in the country's development strategy. The evolution of financial sector policies and the financial sector itself were strongly affected by the country's economic development strategy in each period, and in turn, affected the path of its economic development. To a large extent, Korea's financial history during the past 50 years is the story of its economic development. This paper draws some lessons from the Korean experience in financial sector policy and financial sector development.

No Single Policy fits All: Financial Sector Policies should be Evolutionary

The first lesson is that there is no one policy or practice that is best at all times. Financial sector policy is one of the most important policy measures that a state can employ for the goal of economic development. Thus, depending on the state's strategy for development and its stage of the development, different financial sector policies can be employed. These policies may evolve gradually in accordance with the development of the economic circumstances, with ultimate evolution to a fully market-oriented policy.

In Korea, which was an extremely backward country, the state felt it had to intervene heavily in the mobilization and allocation of financial resources in order to support the expansion of new manufacturing industries. Once the country adopted the strategy of catching-up and competing with bigger forerunner countries by exploiting economies of scale of production, a different financial sector policy from those adopted by the forerunners, whose industrial expansions were mainly financed by retained earnings, became necessary. Without extensive credit programs for exporters and industrialists, the rapid growth of exports and heavy industries may not have been possible. One might argue that if Korea had not taken such a heavy interventionist approach to finance, its economic growth would have been faster because of smaller misallocations of capital to over-expanded industries. However, it is not possible to conduct a counter-experiment. But once the country adopted the catching-up strategy as mentioned above, there was always a question of degree, but heavy reliance on the financial system as an interlink between the state and industry was a natural outcome. In fact, the policy was quite effective in achieving the goal of rapid export growth and heavy industrialization, although it is not clear whether it was the best way to achieve the maximum possible growth rate given the capital input (Cho and Kim, 1995).

However, in Order to Respond to a Changing Economic Environment, the Life of such Interventionist Policies should be Short

The negative aspects of the government's control over the banking sector and of its intervention in credit allocation, however, eventually deepened. As time passed and as the domestic economy became more sophisticated and more open, this type of approach was exposed as having more negative aspects. It engendered moral hazard, corruption, and collusion among vested interest groups and others. The development approach based on strong government control over the financial sector was able to work under a protected

and closed economy. When capital flows were restricted and commercial banks were under government control, the vulnerability of the domestic financial system could be contained. Lowered interest rates and inflationary financing could relieve the debt problems of troubled corporate firms and help tide over crises. The small scale of short-term capital flows also tended to limit problems so that they could be resolved by domestic measures. The 1997 crisis was not the first financial crisis faced by the Korean economy. It faced similar crises in the early 1970s and early 1980s. However at those times, the authorities were able to prevent them from developing into full-blown currency and financial crises because, under a fully-controlled domestic financial system, they could work out prompt interest rate cuts and debt restructuring without causing massive capital outflows.¹ Often, the decisions were biased toward the bailing out of financially weak firms and further expansion (i.e., ‘growing-up strategy’).²

However, as the economy grew bigger and exports gained a growing share in foreign markets, foreign pressure for economic liberalization and opening (both in goods and capital markets) intensified. Pressure for financial liberalization, and especially capital market opening, also built up domestically as domestic firms’ operations became globalized and the adverse impacts of strong government interventions became increasingly conspicuous. Economic progress and rising living standards also intensified people’s demands for political democracy and led to the end of the authoritarian regime. With the ensuing political democratization, domestic pressure for economic liberalization also intensified. The opening of the economy and globalization posed major challenges to the old development approach. Overly leveraged firms were exposed to global competition, generating amplified external shocks. The problems of poorly-supervised banks were exposed to scrutiny by foreign creditors and investors. Korea, like many other developing countries in East Asia, achieved a ‘condensed economic growth’. However, in the rapidly changing domestic and global economic environment, it soon faced the challenge of ‘condensed financial liberalization.’ To some extent, this challenge was also faced by the Japanese economy and will soon be faced by the People’s Republic of China (PRC).

However, the Government-bank-industry Relationship Causes Inertia

In the Korean experience, however, system inertia prevented the adjustment to one more suited to a changed environment. The high debt ratio of corporate firms (which was an outcome of past policies) made them extremely vulnerable to external shocks and impeded the retreat of the government from credit market interventions. The government became the captive of a system and policies of its own creation. Thus, the question is not so much whether the policy was good or not, as how this policy can be changed in a timely way in line with changes in the economic environment.

The Korean experience shows that once the system in which banks play a linking role for the government’s industrial policies is built up, it is hard to make a system transition to accompany the changes in the economic environment. Bureaucrats, highly

¹ The nature of the crises was also somewhat different. The 1997 financial crisis was compounded by a capital account crisis, while the previous ones were compounded by current account crises. See Yoshitomi and Ohno (1999) and Yoshitomi and Sayuri (2000) for the distinction between capital account crises and current account crises.

² However, as it turned out, this type of approach was not able to resolve the problems fundamentally and achieve sustainable high growth. As a result, the corporate and financial sector problems became recurrent.

leveraged firms, and bankers³ have vested interests in the system, and are resistant to change toward a more widely-held, market-based system. The strengthening of bank supervision is also difficult unless there is strong political will. The upgrading of regulatory standards in loan classifications and provisioning rules, for instance, can easily lead to weak capital bases, a severe credit squeeze, and macroeconomic contraction. It can even trigger systemic problem (as was experienced in Korea after the crisis). The longer this system is continued, the more difficult is it to come out of it.

There are Other Reasons Why Liberalization Process tends to (and should) be Slow

In an economy in which the financial sector has long been under strong government control, there tends to be a lack of development of infrastructure and institutions which can complement inherent financial market imperfections. Skill development in credit analysis and risk management is also lacking. If the financial sector is already loaded with substantial non-performing loans (NPLs), the restructuring and recapitalization of these loans takes time, as does the strengthening of regulatory rules and standards. Rating agencies for domestic bills and bonds usually lack credibility, as was witnessed in the Korean experience. In the Western advanced economies, these financial infrastructure and institutions were developed over generations and with many experiences of financial crises. They play the role of guarding against inherent risks due to financial market imperfections.

Problems in the real sector are also significant constraints. The wide-spread financial weakness of corporate firms, with high leverage ratios and low interest cover ratios, which were developed under the system based on the government-banks-industry nexus, also made the financial sector vulnerable to external shocks. The lack of strong rules for competition and accounting transparency, along with a poor corporate governance system, allows the transfer of profits and funds among affiliated firms and makes credit analysis and monitoring difficult. Under these circumstances, financial liberalization alone cannot ensure efficient capital allocation. While it leaves a distorted incentive structure in the real sector intact, financial liberalization can even intensify the distortive effects of real sector problems. Under this situation, overly rapid financial liberalization can engender a great risk of financial crisis (Cho, 1998).

Speed and Sequencing are Key Issues

Financial liberalization itself cannot be a goal. The goal is to establish an efficient and stable financial system which can support strength and efficiency in the real economy. Thus, progress in liberalizing the financial sector should be tuned to progress in real sector development and policy reforms in other areas. It should also be based on the development of financial market infrastructure and regulatory capacities. This sequencing issue can be discussed both in the context of the sequencing between the financial and real sectors and sequencing within the financial sector.

³ Bankers are content under the repressed system because they can enjoy excess demand for credit when the competition among banks is weak.

With regard to sequencing between the two sectors, the Korean experience teaches us that financial liberalization should be preceded, or at least accompanied, by reform of the incentive structure in the real sector. A liberalized financial sector intensifies the effects of a distorted incentive structure in the real sector and makes it more vulnerable to external shock. With regard to the sequencing (or managing) of financial liberalization, the Korean experience suggests the following lessons. First, it is desirable to have a balanced approach to the liberalization of different financial segments. Banks should be treated equally with the non-banking financial sector in terms of the pace of liberalization. Otherwise, liberalization may cause a rapid expansion of the short-term financing market, dominated by NBFIs. Because NBFIs in developing countries usually have less experience and capability in assessing and managing risks and monitoring corporate firms than do banks, financial liberalization, which brings about a rapid shift of funds to the NBFIs, can have adverse consequences for the risk assessment and corporate governance functions of the financial system.

Second, in a related lesson, interest rates of long-term financial instruments should be liberalized before short-term instruments, in order to avoid a rapid expansion of short-term financing and a deterioration of the corporate financial structure. Third, too much emphasis cannot be given to the importance of strengthening prudential regulation and establishing a financial market infrastructure to ensure the successful liberalization of the financial sector. The liberalization of securities dealings without the proper development of market infrastructure, such as credible credit rating agencies, accounting and disclosure standards, can lead to the risk of financial savings being channeled to large but loss-making firms. It has been said that developing countries should have deep securities markets as 'spare tires' in case the banking sector gets into trouble, in order to prevent a massive contractionary effect from a banking crisis. But the Korean experience suggests that the spare tire can also go flat when its growth is not based on solid financial market infrastructure and adequate supervision.

Regulatory Asymmetry has a Major Impact on the Financial Market Structure

Another important lesson from the Korean experience concerns the impact of regulatory asymmetry on the development of financial market structures. The regulatory asymmetry between the banks and NBFIs led to a much faster expansion of NBFIs compared to the banks, even though they dealt with essentially similar financial products. Deposits in the banking sector became outweighed by deposits at NBFIs in the mid-1980s, and this trend was intensified during the liberalization process mainly due to asymmetry in the pace of liberalization between the two sectors. The rapid expansion of the NBFIs contributed to the growth of the financial sector and the diversification of the financial market. But it also contributed to the 'short-termization' of financing and to the increased vulnerability of the financial system.

Managing Financial Restructuring and Economic Transition

In terms of managing financial restructuring, the Korean experience has raised several issues that governments should examine cautiously. First, financial restructuring and the strengthening of regulatory rules have a strong contractionary effect by diminishing the money creation function of the involved intermediaries. This suggests that during periods of massive financial restructuring and strengthening of regulatory standards, monetary and fiscal policies should be expansionary in order to prevent a severe economic contraction. This also suggests a reconsideration of the traditional IMF program, where tight macroeconomic policies and comprehensive financial restructurings are imposed simultaneously. In a country that has been hit by both a currency and financial crisis, more cautious coordination between the macroeconomic policies and structural reform measures is necessary.

Second, an asymmetric approach to restructuring and the strengthening of regulatory rules among different segments of the financial sector can lead to a rapid shift of funds away from the sectors on which regulation is being strengthened toward those such as investment and trust companies in which regulation remains loose. This can also have asymmetric consequences on corporate restructuring between large and small firms in terms of the contracting of bank loans and the expansion of the corporate bond market. This suggests the need for a careful balance in the approach to financial restructuring among different segments of the financial system.

Third, the introduction of global standards overnight in an economy where the accounting and supervisory practices were very backward, pushed the long accumulated (but veiled) non-performing assets to the surface at a pace which the political economy of the country could not readily accommodate. A consequence was granting forbearance, benignly neglecting the application of the already introduced rules, or relying on the old intervention syndrome to roll over credit to troubled firms to disguise bad loans. All these measures undermined the credibility of the reform program and made the future restructuring more difficult. The simultaneous restructuring of financial and corporate sectors also turned out to be difficult. Weak financial institutions could not effectively drive firms' corporate restructuring. This again raises the question of the proper speed and sequencing of economic liberalization.

Successful Economic Transition remains an Unresolved Question

The Korean crisis in 1997 was faced in the midst of the process of economic transition from a heavily controlled to a market-based economy. Unfortunately, this transition was initiated without clear foresight. The liberalization was pushed through without having built up the necessary institutions and safety nets. Moreover, the government tried to rely on the old paradigm of economic management even though the market environment had already been changed through liberalization and opening. It became a captive not only of its old tradition of intervention but also of the system it had created. The high leverage ratios of corporate firms and the heavy economic concentration made it difficult for the government to quickly retreat from intervention. To do so would have left the economy too vulnerable to external shocks.

Korea, like many other developing countries in East Asia, achieved a 'condensed economic growth'. But soon it faced the challenge of having to go through a 'condensed economic liberalization and system transition'. It took centuries for the Western economies to achieve industrialization. In the process, they established the necessary institutions and market infrastructure over generations and through the experience of many crises.

The East Asian economies achieved industrialization within a generation or two, through government intervention in resource allocation and heavy protection of the financial market, as well as corporate sector. But their rapid industrialization coincided with the era of integration of the global economy and the revolutions in telecommunication and information technology. They cannot resist the trend of global integration and have had to open and liberalize their domestic economies quickly. But, as discussed above, the system inertia, the lack of necessary institutions, social safety nets and the economic structures they created, have made it an extremely challenging task to concert a rapid transition to fully liberalized and open economies. The domestic political economies have also made it hard to implement a rapid shift in the economic policy paradigm.

Japan provided one model of rapid industrialization and economic growth through a close government-bank-business relationship, where the government played a leading role. East Asian economies, including Korea, followed this model, albeit not exactly, and also achieved rapid industrialization and growth. In fact, in Korea the role of government was much more direct and stronger—government intervention in the financial sector was more pervasive and intensive. In the process, it built up a stronger government-bank-business nexus.

To a large extent, PRC's economic growth is also based on a strong government-bank-industry nexus. But it turns out that this type of approach can face great challenges in periods of 'system transition'. The economies of Japan and Korea have not fully resolved this challenge. At least, however, some well-understood lessons from their experiences may be helpful for countries including PRC which will have to go through the liberalization and opening process under a rapidly integrating global economy.

Financial Repression, Liberalization, Crisis and Restructuring: Lessons of Korea's Financial Sector Policies[†]

Yoon Je Cho

1. Introduction

The Korean economy was one of the fastest growing economies in the world until it faced the crisis in 1997. Starting in early 1960s, its growth had been called a miracle. This growth attracted much attention from development economists in many aspects, e.g., export oriented development strategy (Krueger 1984,1993, World Bank 1993), rapid expansion of the *chaebols* (Sakong and Jones 1979, Amsden 1989), investment driven growth (Krugman 1994, Kim and Lau 1993, Rodnik 1994), etc. However, above all, Korea's economic growth was based on strong government intervention in the allocation of resources (Amsden 1989, Cho and Kim 1995, Park 1993, 2001, Woo 1991). The key instrument in this growth strategy was the government's control over the financial sector. Thus, understanding financial sector policies is a key to understanding Korea's economic growth.

The Korean approach to financial sector policies had both merits and costs. However, these merits and costs have changed over time. Therefore in order to understand its financial sector policies and economic development, we need to understand the dynamics of financial repression, liberalization, crisis, and the transition from a heavily state controlled financial system to a market oriented system. Having a solid understanding of this process may be essential for guiding a successful financial liberalization and economic transition, a challenge which many developing countries still face, including PRC.

In the early stage of economic development, the Korean approach to financial sector policy was quite effective for rapid industrialization and growth. As a backward economy, which lacked accumulated capital and technologies as well as a well-established capital market, the government played an important role in mobilizing and allocating financial savings for industrial investment through its control over the financial system. The financial sector became an 'inter-link' between the government and industry in the government-led economic development strategy (Cho 1989, Cho and Hellmann 1993, Lee 1992, Shin 2000). Broadly, the role played by the government can be characterized in three ways: first, the government selected priority sectors and supported investment into these sectors through interventions in credit allocation; second, the government encouraged the mobilization of financial savings by implicitly guaranteeing financial institutions and creating incentives for them to maximize deposits and assets rather than profits; and third, the government became an active risk partner in the corporate sector by controlling the financial sector and encouraging adventurous, aggressive investment expansion and the accumulation of capital. At times, the government also helped build markets and institutions. Without such a role of the

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government and the accompanying role of the financial sector in this development paradigm, the Korean economy may not have achieved such rapid growth in exports and heavy industry.

This approach also created many problems, however. The government's risk partnership with corporate firms nurtured moral hazard in the corporate as well as financial sector. Government's control over finance through interest rate controls and various policy credit programs created a large amount of economic rent. A group of favored recipients of this rent emerged and expanded rapidly, leading to high economic concentration. When large *chaebols* were established, taking advantage of this type of development strategy, the government became a hostage of its own policies—continuously needing to provide credit since the performance of the whole economy depended heavily on the performance of these *chaebols*, and the failure of any of them could have significant repercussions on the economy. The government, as the owner of the financial institutions (1960s-70s), or as the commander of their management (1980s-early 1990s), could not properly perform its role as bank supervisor. At this time, it had already gone beyond its intended role of being a facilitator of savings mobilization and investment, to becoming the prey of its own system.

There were also problems in the policies toward the real sector, especially in the form of weak fair trade rules, poor corporate governance, accounting standards, disclosure rules, and rigidity in the labor market, etc. The financial sector policies compounded the weakness of these policies and intensified the problems of moral hazard, and the reckless investment expansion of the corporate sector. Long accumulated losses of financial institutions due to the over-extension of debt by corporate firms, and the resulting failure to service the debt obligations, were simply veiled behind poor regulatory rules, accounting and disclosure practices. (Cho, 1998)

Korea began its financial liberalization and opening in the early 1990s. This contributed, among other things, to intensified competition among financial institutions, and to a rapid increase in foreign borrowings. But it also contributed to a 'short-termization' of both domestic financing and foreign debt, that made the Korean economy extremely vulnerable to external shocks. With the misaligned incentive structure of the real sector uncorrected, this even intensified the distortion of the capital allocation.

The Korean economy faced a twin crisis—currency and financial—in 1997. The corporate sector was suffering from severe debt payment problems and a long-term accumulation of losses. Companies had relied for survival on continuous credit support by domestic banks and foreign creditors (who believed that Korean banks and the government would bail them out). When it became obvious that the non-performing loans of Korean banks had reached an alarming level, and that the amount of short-term foreign debt was much larger than the foreign exchange reserves held by the central bank, foreign creditors quickly started to pull out.

The immediate cause for the 1997 crisis of Korea was the maturity mismatch in foreign currency liabilities and assets, and a run on domestic banks by foreign creditors. However, more fundamentally, it was a deep financial and corporate crisis. It was a crisis faced by an economy that was in the transition toward a more liberalized and open financial system from one heavily protected, with deep reliance on a development strategy based on a government-controlled financial system.

The Korean economy had faced several crises in the past. However, it was able to overcome them through the 'growing-up' strategy, with regulatory forbearance and government support to banks and firms through interest cuts, relief loans, and sometimes even with forced moratoriums imposed on informal market lenders. Korea had also heavily relied on foreign debt, and faced difficulties in servicing the debt when it faced external shocks such as the oil crisis and global economic recessions which led to deterioration in the balance of payment. But Korea was able to cope with such difficulties in the past because the structure of foreign debt was better balanced and the magnitude of the problems was relatively small.

However, in 1997, the traditional 'growing-up' strategy could no longer work. A serious currency and maturity mismatch due to the heavy reliance of domestic financial institutions and corporate firms on short-term foreign debt, and the rapid outflow of this short-term foreign capital, left the government helpless. The free fall of the exchange rate and the high interest rate policy that was adopted to stabilize the currency crisis magnified the domestic financial crisis. In the face of enormous pressure from the international financial community, Korea could no longer rely on the old approach to deal with the crisis. On the contrary, it found itself forced to strengthen supervision and regulatory standards, by adopting the global standards on loan classifications, provisioning, capital adequacy ratios, disclosure, etc. This exposed the long-veiled NPLs to the surface and magnified the financial crisis, which had to be dealt with through massive financial restructurings under the IMF program.

After four years of restructuring and adjustment, the currency crisis has been overcome. However, the Korean economy has not yet fully resolved its financial sector problems. The government has allocated about 160 trillion won in gross terms, nearly one third of the country's GDP, to resolve these problems. It has closed numerous financial institutions, and recapitalized many surviving ones. Out of 2,101 financial institutions that existed at the end of 1997, 590 institutions (28%) were closed, merged, or de-licensed during the last four years (1998-2001). Global standards in banking supervision, accounting, disclosure and corporate governance have been introduced. But many financial institutions are still loaded with large amounts of potential NPLs. The corporate sector still suffers from weak debt servicing capacity. The problems faced by the Korean financial sector have only been partially resolved.

The Korean experience confirms the fact that the transition from a heavily repressed and protected system to a fully open and market-based financial one is not an easy task. The introduction of global standards overnight into an economy where the accounting and supervisory practices were very backward pushed the long accumulated (but veiled) NPLs to the surface at a pace which the political economy of the country could not readily accommodate. The choices under the circumstances were to either benignly neglect the application of the already introduced rules, or to rely on the old intervention syndrome to roll over credit to troubled firm.¹ All these measures undermined the credibility of the reform program and made future financial restructuring more difficult.

The simultaneous restructuring of the financial and corporate sectors also turned out to be a very difficult task. Weak financial institutions could not effectively drive the corporate restructuring, since this would have further weakened their capital adequacy

¹ Since this allows the loans to those firms to be classified not as bad loans.

ratios and subjected them to restructuring program themselves. Korea could not benefit from internationally best practices in this area, since no such best practices existed. This revives an old question—what is the appropriate speed and sequencing of economic transition?

The purpose of this paper is three-fold: first, to review and assess Korea's financial sector policies in the early period (1950s-1980s) in light of the benefits and costs to the economy; second, to review financial liberalization process in the 1990s and analyze the financial sector's vulnerability, which was increased in the process of financial liberalization and opening; and third, to review and assess the financial restructuring experience after the 1997 crisis. Based on this analysis, the paper attempts to draw lessons from the Korean experience of financial repression, liberalization, crisis and restructuring.

The paper will proceed as follows. The second chapter will briefly review the historical and political background of Korea's financial sector policies. The evolution of the financial sector policies of Korea, as in other countries, can be better understood in the broad context of the political and social environment in which these policies were formulated.

The third chapter will review Korea's financial sector policies from the 1950s to the 1980s, dividing the period into five sub-periods. It will review how financial sector policies interacted with developments in both the international and domestic economic environment in each period, looking at whether and how they contributed to (or interfered with) the rapid industrialization and growth. It will also analyze how the financial sector policies and development of the financial market structure affected the patterns of the corporate sector's financing during this period. It will also discuss how the economic crises of early 1980s, the two major crises that the Korean economy had faced before the 1997 one, were overcome.

The fourth chapter will discuss the financial liberalization and crisis in the 1990s. It will review the economic and political background of Korea's financial liberalization, how the liberalization (both internal and external) was actually implemented, and what impact it had on the financial sector. It will also discuss the political economic aspects of financial liberalization. It will then discuss the nature of the 1997 Korean crisis, and how the financial liberalization and opening of the capital market increased the vulnerability of the economy and led to the crisis.

The fifth chapter will discuss the financial restructuring after the crisis. It will discuss how it was approached, how deep the problem was, and what progress had been made so far. It will also discuss the main obstacles to the progress of a more fundamental financial restructuring. Based on this, the chapter will make some assessment of the Korean approach to financial restructuring.

The last chapter will draw lessons from the Korean experience in financial sector policies—financial repression, liberalization, crisis, and restructuring. Korea's economic development was led by the government. The Korean development approach resembled in many respects that of the planned economies. In the process, it had established a government-banks-industry (or chaebol) nexus. In its catching-up strategy, the financial sector was a crucial link between the state and the industrial sector. The introduction of global standards in bank supervision, corporate governance, accounting and disclosure, following the Anglo-American standards, has not been an easy task (Shin 2001, Chang

1997, Park 2001). The lessons of this experience should be relevant to many economies in transition as well as other developing economies who are contemplating the liberalization and opening of their financial systems, which have been heavily repressed so far.

2. A Brief Historical and Political Background ²

In Korea, as in other countries, the government's role in finance and its financial sector policies were intertwined with the country's social and political environment. Korea was occupied and ruled by Japan from 1910 to 1945, and was divided into North and South after World War II. President Rhee Syng-Man led the first government of Korea from 1948 to 1960. Having spent most of his adult life overseas (mostly in the United States) fighting for Korean independence from Japan, Rhee focused much of his political agenda upon his return to building the nation, securing U.S. military commitment to ensure Korean security, guiding the country's involvement in the Korean War, stabilizing inflation, and securing U.S. aid for rebuilding the war-devastated country. During the war, the exchange rate had become highly overvalued, primarily because the major source of foreign exchange revenue came from the local expenditures of U.S. military forces. Under Rhee's regime, Korea adhered to typical import-substitution policies. This was largely a political necessity, as was so often the case elsewhere. Korea's economic policy pursued defensive industrialization in order to keep from consuming Japanese products. Rhee's administration sought to allocate all available foreign exchange to build domestic factories to produce such daily necessities as sugar and cloth. Until the early 1960s, the Korean economy was dependent on U.S. aid.

From 1954 to 1960, Korea's economic growth was modest, averaging 3.7 percent a year. Many foreign observers concluded that the massive U.S. aid was not conducive to economic development. In fact, some believed that the aid was imbuing Koreans with a welfare mentality. For their part, U.S. development agencies called Korea a "nightmare" and a "bottomless pit" (Woo, 1991). The high distortion in the relative prices due to inflation and protection promoted graft and corruption in the allocation of foreign exchange, import licenses, bank loans, and sales of assets formerly held by Japanese.

In 1960, a student uprising to protest election fraud, corruption, and dictatorship led to the collapse of Rhee's regime. A new democratic government was elected, led by Chang Myon, but it was short-lived (1960-61). Although Chang's government set out to draft a five-year economic development plan, both internal and external observers expressed doubts about the efficacy of his government. In the 1950s and early 1960s, Korea showed symptoms of the economic malaise that is commonly found today in many less developed countries (LDCs).

The turning point of Korean economic development came in the 1960s. In May 1961, Park Chung Hee, a military general, took over the government in a coup d'état; in 1963, he became president in a popular election. His regime continued until 1979, when he was assassinated. With the aim of motivating people, Park was always at the forefront of the national drive for economic development, restlessly monitoring the progress of all development projects, both public and private, and governing the industrialists relentlessly using both carrot and stick. As they came from peasant origins, most

² Part of this section is based on Cho & Kim (1994).

Koreans, including Park himself and the members of his military junta, did not have much trust in the free-market system (Woo, 1991). Park believed that national security was related to national wealth and the military strength (Bu Kuk Gang Byung) which were essential for reunifying the divided country and developing it into an economic power (C.Y.Kim 1990). However, having been educated in the Japanese Military Academy, Park used the Japanese prewar experience (especially 1930s) as a model for economic development.

Park strengthened his authoritarian rule through constitutional reform (Yushin), and assumed absolute power in 1972. At this point, he set politics aside, allowing “administration” to dominate the judiciary, the media, and all the decision-making processes. Heavy industrialization and rapid economic growth were given the highest national priority. He also strengthened government control over the allocation of the financing for this goal.³

In a credit-based economy such as Korea’s, control over the banks was the most powerful instrument for controlling the industrialists, and the authoritarian regime wanted to retain such control. On the one hand, the only justification for the existence of the authoritarian regime was to spur rapid economic growth and industrialization. The government launched an ambitious plan for heavy and chemical industry (HCI) development; to do so, it believed that it had to intervene heavily in financing investment. On the other hand, the regime needed the support of industrialists to sustain itself by corrupting its critics. Political corruption did not disappear in Park’s regime, but he kept the bureaucracy relatively clean by offering non-monetary rewards and imposing punishments.⁴ As for the industrialists, they continuously needed to secure cheap credit support from the government to sustain their highly leveraged financial structures, and were willing to provide the funds to support authoritarian politics. In the process, the government gradually became the hostage of credit-dependent *chaebols*, and was forced repeatedly to bail them out when they were in trouble.

By the end of the 1970s, the major HCI projects had been completed, and Korea’s industrial structure had been reoriented significantly toward HCI. However, this huge drive had built up enormous overcapacity and slowed exports and economic growth. When Park was assassinated in 1979, his regime collapsed, and along with it the HCI drive. However, the HCI drive was also discontinued because it had largely achieved its goal.

Park’s regime was followed by the government of Chun Doo-Hwan (1980-88) who seized power through another military coup. As the public grew increasingly

³ It is of interest to note that, when Korea’s first five-year economic development plan was prepared, there were only two U.S.-trained economists with Ph.D.s (both in agricultural economics) and fewer than ten M.A.s in economics. The U.S.-trained Korean neoclassical economists started to enter the economic policy-making arena in the early 1970s, a movement that was given impetus when the Korea Development Institute (KDI) was established in 1971 and when economists were appointed as advisers to the president or the economic minister. Yet their influence in determining the major direction of economic policies remained very limited until the end of the 1970s; they remained largely in the background. As Park strengthened his authoritarian regime in the early 1970s, he also strengthened the role of the state in economic activities; the economists’ job was left largely to addressing technical issues or finding the least distortionary measures given the government’s interventionist approach (Nam 1992).

⁴ Park received donations from industrialists, but he used this money for political purposes, and did not use it to accumulate his own personal wealth.

disenchanted with excessive government intervention, which it blamed for the excessive investment in HCIs and the slow economic growth in the late 1970s, economic liberalization became a catchphrase starting in the early 1980s. But despite the fact that substantial liberalization in trade and industrial policies were achieved—due in part to the government’s own initiative but also in part to pressure from Korea’s largest trading partner, the United States—liberalization of the banking system was exceedingly sluggish. Although the government did commit to several liberalization measures, such as privatizing commercial banks, the financial sector remained subject to government intervention in the 1980s. In particular, the government continued to exert heavy control over the banking sector in order to bail out, merge, and restructure firms in troubled industries. Its reluctance to liberalize the sector was also fueled by the same dilemma that had faced the previous government—the give-and-take relationship between the authoritarian government and the industrialists. As a compromise, the government liberalized nonbanking financial institutions (NBFIs) at a faster pace, relaxing entry barriers and expanding their business boundaries. Interest rate regulations on them were less strict. Most of these NBFIs were established and owned by the *chaebols*, and their operations were more commercially oriented than the banks. NBFIs grew rapidly, and their deposit share had grown larger than that of banks by the middle of the 1980s (Cho 1988, 1989, Cho and Cole 1992).

The end of Chun’s government was followed by the presidency of Rho Tae-Woo (1988-93), another former military general and a close friend of Chun’s. Pledging political democratization, Rho won the presidential election in 1987, the first in sixteen years. Political democratization began to erode the government’s supreme authority and its traditional relationship with business, especially with the *chaebols*. By the late 1980s, the share of government-controlled bank loans in the total flow of funds had declined substantially. *Chaebols* now controlled the NBFIs, and were able to mobilize a substantial amount of funding through them. In fact, their reputation was established to the extent that they could raise funds independently in international capital markets.

It is not surprising that, during this period, the scope of government intervention narrowed, and the structure of policy loans changed substantially. Export credits and interest rate subsidies, especially for large export powerhouses, were reduced, spurred primarily by the large current account during 1986-89 and by trade friction with the United States. However, in the second half of the 1980s, policy loans was expanded in response to political demands, which called for encouraging the growth of small and medium-size company, agricultural, and housing credits. Conversely, bank credits to the thirty largest *chaebols* were controlled tightly to ensure that their share of the total amount of credit would not increase. Nevertheless, there were many exceptions in which *chaebols* were able to circumvent this credit restriction. They could also rely on NBFIs that they owned themselves for their own financing and direct financing from capital market. The *chaebols* continued their expansion and the traditional government-chaebol relationship did not change much under Rho’s administration. Financial liberalization, despite government’s commitment to it, made little progress.

Kim Young-Sam won the presidential election held at the end of 1992. The new administration which was inaugurated in early 1993 proclaimed itself ‘the first civilian democratic administration since 1961,’ and pursued ‘deregulation’ and ‘globalization’ as its two keywords in its economic policy. This was in response to the disapproval of the

general public of the long-standing heavy government interventions in the financial sector and the economic activities of firms. Various liberalization and opening measures were taken in the financial sector in keeping with this policy direction. The government announced the “Blue Print for Financial Liberalization and Market Opening” in July 1993 and “Foreign Exchange Reform Plan” in December 1994. Many restrictions on the financial market and foreign exchange transaction were relaxed or abolished. Korea’s financial liberalization was implemented fairly rapidly during this period. In part, this was accelerated by the administration’s ambition to become a member of the OECD.

However, the financial liberalization lacked foresight regarding the long-term stability of the economy, and was driven by the push and pulls of both internal and external factors. Consequently, its implementation was reactive and sometimes distorted, resulting in further vulnerability of the corporate financial structure, which led to a string of bankruptcies of large *chaebols* and the crisis in 1997. While being haunted by the pressure of liberalization, the authorities did not pay sufficient attention to building up the financial market infrastructure necessary to help the sound operation of the liberalized financial market. Financial supervision was also not strengthened. Poor accounting and disclosure standards were left intact, and credit rating agencies remained unreliable. Fragmented financial supervisory authorities and the lack of skills also contributed to the inadequate provision of the supervisory function. The financial reform package, which included the consolidation of the supervisory bodies and the independence of the central banks, could not be enacted until after the break of the crisis, due to the strong antagonism between the Ministry of Finance and Economy (MOFE) and the Bank of Korea (BOK).

On the other hand, the financial supervisory authorities only had limited options. Most of the large firms were extremely highly leveraged, and there was a common perception that the big *chaebols* would not be allowed to fail. Thus, even though many large *chaebols* were expanding into risky new ventures with highly leveraged capital structures and poor debt service capacities, the supervisory authorities were not in a position to ask the banks and other financial institutions to reduce their loans to these *chaebols*, since this could have immediately reduced the economic growth rate, or even prompted a systemic risk. The size of the borrowers was already too large for the domestic banks to exercise prudential loan portfolio management. They were just hoping that either the investment by their borrowers would turn out to be great successes, or that the government would bail them out when they got in trouble. In a sense, in an economy where the average corporate debt equity ratio was more than 300 or 400 percent, the enforcement of sound prudential norms itself was a major challenge.

Korea adopted an IMF program in December 1997, at the end of Kim Young Sam’s administration. The program lasted three years. Kim Dae-Jung won the presidential election in the middle of the economic crisis in December 1997, and his administration has pursued the restructuring of financial and corporate sectors. Under the IMF program, various structural reform measures were introduced and comprehensive restructuring in the financial and corporate sectors was pursued. Kim Dae-Jung, whose success in politics was substantially due to the support of labor and the foreign governments (especially the US), has been quite open to recommendations by foreign investors and governments. Korea has completely opened its financial market, abolishing all kinds of capital controls; introduced global standards in bank supervision, and

disclosure rules; and adopted new corporate governance structures and accounting rules. However, there has been slow progress in improving labor market flexibility and reform.

The progress and achievements so far have been mixed. Perhaps no other country has introduced such comprehensive structural reform measures within such a short time period. But the reality of the economic situation of Korea was such that it could not fully digest the global standards imposed overnight. The political economy of the country could not readily accommodate a high unemployment rate and the severe labor problems that could be aroused by a deep financial and corporate restructuring. The consequence was that, despite the substantial progress made in some areas, the restructuring remains incomplete.

3. Financial Sector Policies and Development: Before Liberalization

This section briefly discusses how the financial sector policies evolved from the 1950s to early 1990s, with this time period divided into five subperiods: (i) the post-Korean War reconstruction and the control of war inflation (1950s); (ii) greater government control over the financial sector and the expansion of credit support for exports (1961-71); (iii) the intensification of financial repression and the expansion of credit support for the HCI drive (1972-79); (iv) limited attempts at financial liberalization, but continued credit interventions to support industrial restructuring (1980-86); and (v) the expansion of policy loans to ensure social equity and intersectoral balances (1987-92).⁵

3.1. The Post-Korean War Reconstruction and Stabilization (1950s)

A modern financial system was introduced in Korea under the Japanese occupation. With independence in 1945, the government took over the Japanese-owned banks. With help from U.S. experts, the financial system was restructured in 1950. In the late 1940s, Arthur Bloomfield, an economist with the Federal Reserve Bank (FRB) of New York, came to Korea to help create a financial system built around an independent central bank akin to the U.S. Federal Reserve System. Among other items, the reform proposal called for “getting most of the commercial banks as rapidly as possible out of government hands into the hands of private owners,” and included a system of checks and balances in monetary and credit policies. Based on this recommendation, the Bank of Korea (BOK) was established. But it was only in 1957, after prolonged U.S. pressure, that Korea took the first step toward privatization. This move was accompanied by worrisome consequences: the takeover of banks by a few large industrialists, and the concentration of bank credits for the use of the banks themselves. For the next few decades this early experience with bank privatization provided a strong social defense for government control over banks.

When the Korean War ended in 1953, the government’s efforts began to focus on rehabilitating the devastated economy and coping with severe inflation. To pursue these goals, the government imposed credit ceilings and adopted selective credit policies (SCP). In 1953, the monetary authority introduced a credit rationing system under which priorities were set according to their significance and urgency for the economy. Financial

⁵ The discussions in this section are based heavily on Cho and Kim (1995).

policy during this period was similar to what can now be seen in many developing countries: interventions without clear instruments or economic goals. Interest rates on loans were set at around 14 to 17 percent, figures which were usually significantly negative in real terms.⁶ All bank funds were categorized into three groups: (i) credits eligible for rediscounting at BOK; (ii) credits that were not supported by BOK rediscounting; and (iii) credits that banks were prohibited from lending. Credits for chemicals, textiles, machinery, metal mining, and food manufacturing figured prominently in the BOK rediscounting category; ineligible for rediscounting were somewhat vaguely designated “nonproductive” activities, such as service industries and consumer goods such as beverages, furniture, cosmetics, and retail trade; the second group was defined vaguely so as to capture a wide net of borrowers. After 1955, banks were required to obtain prior approval from the monetary authority for private sector loans above a certain amount and for all loans to public projects. The aim of this policy was to maintain control over the money supply. Yet, despite this SCP, the rate of inflation remained high, due primarily to persistent government budget deficits. Beginning in 1957, the government initiated tight fiscal and financial stabilization programs. As a result, the annual rate of inflation (as measured by the wholesale price index) fell from 35.4 percent during 1953-57 to 2.5 percent during 1958-60.

Meanwhile, in 1954 the government established the Korea Development Bank (KDB) to grant medium- and long-term loans to industries. According to the KDB Act, KDB’s operating funds were to come primarily from long-term bonds issued by itself and from borrowings from the government in forms such as “counterpart funds” mobilized from the sale of foreign-aid goods. However, KDB came to depend heavily upon BOK for funds, because, in the face of inflationary conditions, limited private savings, and ceilings on interest rates, it was unable to sell long-term debt instruments to the public.⁷

Financial sector growth was very slow throughout 1950s, with M2 remaining smaller than 10% of GNP.

⁶ Inflation during 1953-57 ran at an average rate of about 35 percent annually.

⁷ Since the 1970s, KDB was financed mainly through issuing its own bonds, which were placed to captive buyers, i.e. commercial banks.

3.2. Strengthening Government Control over the Banking Sector and Export-Led Economic Growth (1961-71)

In 1961, the military Park government established new priorities for Korea's economy by shifting its policy stance from stabilization to growth and from import substitution to export promotion. It believed that economic growth could be pursued only if the government took the lead in mobilizing and allocating resources. To pursue this goal, it launched its first five-year economic development plan and implemented two measures to strengthen state control over finance: the nationalization of commercial banks, and the amendment of the BOK Act to subordinate the central bank to the government. Practically all policy instruments were mobilized to support export-led growth and the five-year development plan. Among other measures, Park's government took three important steps: strengthening export credit programs; reforming bank interest rates to mobilize financial savings through banks; and amending foreign exchange regulations to open up the inflow of foreign capital.

Nationalizing Commercial Banks and Reorganizing the Central Bank

Commercial banks were nationalized, and various specialized banks were established to support specific sectors. In 1961, most of the equity capital of commercial banks, which was formerly owned by a few industrialists, was transferred to the government. This paved the way for the government to exert direct control over commercial banks. The government induced commercial banks to finance long-term policy loans by directing them to deposit their funds in the KDB, to purchase long-term bonds issued by the KDB, and to extend credit to firms with loan guarantees from the KDB. Commercial banks also made loans for equipment investment on a revolving basis.

The nationalization of the commercial banks was accompanied by the reorganization of BOK. An amendment to the BOK Act of 1962 transferred monetary policy authority from BOK to the Ministry of Finance. This step was crucial to the government's financing strategy for development projects, which depended heavily on BOK monetary expansion. Under the amended Act, the governor of BOK was to be appointed by the President on the recommendation of the Minister of Finance. In addition, the Minister of Finance had the authority to request the reconsideration of resolutions adopted by the Monetary Board, BOK's policy-making body. The policy authority and autonomy of BOK were thus narrowed further. The Ministry of Finance (MOF) took control of foreign exchange policies from BOK and assumed the administrative power both to supervise its business and to control its budget and expenses. The 1962 amendment also empowered MOF to direct BOK to purchase securities issued by government agencies with redemption guarantees. These measures allowed the economic development plan to be financed easily with high-powered money.

The Korea Development Bank Act was also amended to strengthen KDB's role in economic development. The bank's capital base was increased, and it was allowed to provide payment guarantees for foreign borrowing, supply working capital loans, and grant long-term loans. It was also given permission to borrow funds from BOK. Other specialized banks were established throughout the 1960s to handle policy loans: the National Agricultural Cooperatives Federation in 1961, the Industrial Bank of Korea in

1961 (for small and medium-size loans), the National Federation of Fisheries Cooperatives in 1962, the Citizens National Bank in 1963 (for small-firm and household loans), the Korea Exchange Bank (KEB) in 1967, and the Korea Housing Bank in 1969.

The Expansion of Export Credit Programs

BOK streamlined its export credit programs to support direct and indirect exporters at preferential rates.⁸ In addition to explicitly earmarked export credit programs, the government used both formal and informal directives or communications to persuade banks to lend to exporters to support their fixed investment and working capital.

The export industry in Korea was supported by export credit programs as early as in the 1950s, but the size of export loans was negligible at the time. From 1961, when the military government initiated the export-led strategy for economic growth, it strengthened export credit programs to support exporters. The short-term export credit system was streamlined in that year. The essence of the new system was the automatic approval of loans by commercial banks to firms with export letters of credit (L/C). Initially, the program covered a certain portion of the costs of production. However, its coverage has expanded rapidly since 1961: for sales to U.N. forces in Korea 1961; for exports on a D/P, D/A, or consignment basis in 1965; for construction services rendered to foreign governments or their agencies in 1967; for imports of raw materials and intermediate goods for export use or purchase from local suppliers in 1967; etc. In each case, the expanded coverage was meant to support the exploration of new export opportunities and the diversification of export items. These new programs were established after close consultations between the government and exporters. In 1972, these schemes were consolidated into the Regulation of Export Financing. The introduction of general trading companies ushered in a new export financing system, which provided financing on the basis of the previous year, thus linking export performance with access to credit. The general trading companies had favorable access to export credit, but had to renew their licenses each year. Those whose exports did not exceed a specified amount had their licenses revoked.

The interest rate on export loans was heavily subsidized. When the 1965 interest rate reform was implemented, the rate on export credit was untouched. Consequently, the gap between exports loans and general ordinary loans widened sharply (see Table 1). In 1973, as the government reoriented its industrial development strategy toward promoting HCI, the BOK discount policy was extended further, financing equipment investment in the export industry. In 1976, the government also established the Export-Import Bank of Korea (EXIM), which specialized in mid- and long-term post shipment export financing, to encourage the export of HCI products. In the mid-1980s, when the current account surplus increased, the amount of export loans fell significantly and large corporations were made ineligible for the BOK rediscount.

Table 1 shows the share of export loans in total loans from DMB. Between 1961 and 1965, the annual average share was 4.5 percent; it increased to 7.6 percent during 1966-72 and to 13.3 percent during 1973-81. Yet, when the current account surplus widened in the mid-1980s, the share fell significantly; during 1987-91, it was only 3.1

⁸ Rhee (1984) provides a detailed discussion of Korea's export incentive system, including export credit program.

percent. The share of export loans in total policy-based loans supplied by the DMB showed a similar trend: after reaching 20.4 percent during 1973-81, it fell to 4.5 percent during 1987-91. Table 1 also shows that the extent of credit supports by BOK to DMBs for export loans. This ratio indicates that more than half of DMB export credit was supported by the central bank's rediscounting.

Table 1. Export Loans by Deposit Money Banks

	(Percent)				
	1961-65	1966-72	1973-81	1982-86	1987-91
Export loans by DMB/ total loans by DMB	4.5	7.6	13.3	10.2	3.1
Export loans by DMB/ total policy loans by DMB	N/A	N/A	20.4	16.5	4.5
Export loans by BOK/ export loans by DMB	N/A	66.3	73.0	64.5	45.3
Export loan interest rate (A)	9.3	6.1	9.7	10.0	10-11.0
General loan interest rate (B)	18.2	23.2	17.3	10-11.5	10-11.5
(B) - (A)	8.9	17.1	7.6	0-1.5	0-0.5

N/A means not available

Source: Bank of Korea, *Economic Statistics Yearbook*, various issues.

Interest Rate Reform

As mentioned earlier, the government changed its interest rate policies significantly in 1965. Overnight, it raised the nominal interest rate on (one-year) time deposits from 15 percent to 30 percent annually, and the general loan rate from 16 percent to 26 percent (Table 2). This "negative margin" between the deposit and loan rates was intended to provide an important incentive for financial saving, without excessively raising the cost of loans to industrial firms. To protect the profitability of banks, the central bank paid an interest rate (3.5 percent annually) on the banks' required minimum reserves.

Table 2. Interest Rates, 1964-1971

(Percent)

Years	Inflation (CPI)	Time deposits ^(a)	Bank loans		Curb market
			General	Export	
1964	-	15.0	16.0	8.0	61.8
1965	-	30.0	26.0	6.5	58.9
1966	11.2	30.0	26.0	6.0	58.7
1967	10.9	30.0	26.0	6.0	56.7
1968	10.8	26.0	25.2	6.0	56.0
1969	12.3	24.0	24.0	6.0	51.4
1970	15.9	22.8	24.0	6.0	50.2
1971	13.5	22.0	22.0	6.0	46.4

a) One-year time deposit at bank.

Source: Bank of Korea, Economic Statistics Yearbook, various issues

The reform drew private savings from the informal curb market into banks. In the first three months, the level of time and savings deposits increased by 50 percent; over the next four years the level grew at a compound annual rate of nearly 100 percent. The stock of M2 relative to GNP shot up from 8.9 percent in 1964 to 32.6 percent in 1969 (Table 3). Total bank loans increased by an equivalent amount. The annual growth rate of bank loans rose from 10.9 percent during 1963-64 to 61.5 percent during 1965-69.

Table 3. Growth of M2, 1965-69

(Percent)

Years	Annual growth rate	M2 / GNP (%)
1963	7.36	11.016
1964	14.8	8.88
1965	43.24	12.05
1966	61.69	15.01
1967	61.66	19.81
1968	72.03	26.41
1969	38.04	32.69

However, the reform only partially helped draw the interest rates offered by the banks closer to market rates. Loan rate increases were selective, and left out export, agricultural, and many other categories of investment loans (which were discounted by BOK at lower rates to ensure that the banks remained profitable). For example, interest rates on loans to exporters remained at 6.5 percent, while the general loan rate was 26 percent (Table 2). More importantly, the reform helped shift funds from the unregulated informal sector to the banking sector, over which the government had tightened its control. Thus, one of the consequences of the 1965 interest rate reform was to increase the scope of government control over finance by expanding the sector it controlled and contracting the unregulated sector.⁹

Facilitating the Inflow of Foreign Capital

In order to compensate for the inability of domestic capital to meet the investment expansion required under the economic development plan, the government normalized its relations with Japan in 1965 and amended the Foreign Capital Inducement Act in 1966, giving permission to state-owned banks to guarantee private sector foreign borrowing. This created a large inflow of foreign capital, especially from Japan.¹⁰ Since few Korean firms had direct access to foreign borrowings in the 1960s, the government's repayment guarantees on private borrowers through state-owned banks such as the KDB and KEB facilitated and reduced the cost of private foreign borrowing. Because domestic interest rates were high, foreign borrowing was very attractive to firms. Yet, because each foreign loan had to be approved by the government, foreign loans were also used selectively to support industrial policy goals.

The Over-expansion of Credit and the IMF Program

Interest rate reform in 1965 led to a rapid increase in the domestic credit and debt ratio of corporate firms. Increasing foreign borrowing aggravated the debt ratio of firms further. High interest rates during the second half of the 1960s also squeezed corporate profitability and retained earnings. Firms borrowed more from banks to pay high interest bills and to expand their exports. High economic growth after the first five-year economic plan period (1962-66) made Korean industrialists optimistic about the future of the economy. Their optimism, in turn, fueled the investment boom of the second half of the 1960s, which was supported by the rapid growth of domestic financial savings and credit as well as the increase in foreign borrowing.

As the Korean economy began to show signs of over expansion—with a swelling current account deficit—the government requested the IMF stand-by loans, and the IMF stepped in. It recommended that the won be devalued, that export subsidies and import restrictions be abandoned, that monetary control be tightened, and that a temporary ceiling be imposed on foreign borrowings (an orthodox IMF program). The Korean government resisted these recommendations, which would have thwarted the second five-year economic plan and jeopardized rapid growth. But the pressure was

⁹ One estimate put the size of the informal credit market in Korea at between 56 and 63 percent of total domestic credit at the end of 1964.

¹⁰ See Cho (2001) for a detailed discussion of the inflow of capital from Japan during the second half of the 1960s.

intense; the United States made the consideration of additional PL480 ¹¹ and developmental loan funding conditional on the acceptance of the IMF program (Woo 1991). The Korean government then agreed to the program in 1970, with the exception of the demand to end export subsidies—an incentive that the government viewed as the pillar of its export-led growth strategy. Consequently, annual monetary growth rate dropped from 52 percent in 1968 and 45 percent in 1969 to 11.3 percent and 24.9 percent in 1970 and 1971. The annual domestic credit growth rate dropped from 66.3 percent and 59.8 percent in 1968 and 1969 to 32 percent and 28 percent in 1970 and 1971 (Table 4). Economic growth also fell from 13.8 percent in 1969 to 7.6 percent in 1970. This drop was followed by a currency devaluation of 18 percent in 1971 and another 7 percent the following year.

Table 4. Key Economic Indicators from 1964 to 1978

(Percent)

	Investment ^(a)	Exports ^(a)	Domestic credit ^(a)	Nominal interest rates on general loans	Rates of return to fixed assets ^(b)	Curb market interest rates ^(c)	GNP growth	GNP deflator ^(a)
1964	13.3	37.2	7.8	16.5	32	61.80	9.7	30.0
1965	19.3	47.0	34.8	18.5	34	59.92	5.7	5.8
1966	84.0	42.9	25.7	26.0	40	58.68	12.2	14.6
1967	25.2	27.9	64.3	26.0	37	56.52	5.9	15.9
1968	52.3	42.2	66.3	25.8	28	56.04	11.3	16.1
1969	45.1	36.7	59.8	24.5	28	51.36	13.8	15.5
1970	11.3	34.2	32.3	24.0	25	50.26	8.8	15.5
1971	24.9	27.8	28.2	23.0	23	46.44	8.6	12.5
1972	3.7	52.1	26.9	17.7	27	39.00	4.9	16.7
1973	40.7	98.6	31.7	15.5	34	33.24	12.3	13.6
1974	30.2	38.3	54.2	15.5	30	40.56	7.4	30.5
1975	24.9	13.9	32.2	15.5	29	47.88	6.5	25.2
1976	77.1	51.8	21.7	16.1	33	40.47	11.2	21.3
1977	43.1	30.2	23.6	15.0	-	38.07	10	16.6
1978	45.1	26.5	45.9	17.1	-	41.70	9	22.8

(a) Annual growth rate.

(b) Manufacturing sector.

(c) Prime enterprises.

Source : Bank of Korea, *Economic Statistics Yearbook*, various issues; Hong (1979); and, Cole and Park (1983).

¹¹ Aid in grains.

3.3. The First Financial Crisis and Increased Government Intervention for the HCI Drive (1970s)

Starting in the early 1970s, the government reverted to lower interest rates, further intensifying its control over credit allocation. The credit policies became more “selective.” This reversion was marked by the Presidential Emergency Decree of 1972, which bailed out financially insolvent firms by placing an immediate moratorium on all loans in the in formal credit markets, and which reduced the bank loan interest rate from 23 percent to 15.5 percent annually (Table 4). Furthermore, approximately 30 percent of the short-term high-interest commercial bank loans to businesses were converted into long-term loans at concessional terms (to be repaid on an installment basis over a five-year period at an 8 percent annual interest rate with a three-year grace period).

The First Financial Crisis and Its Resolution

Korea faced first financial crisis in the period of 1970-72.¹² Non-performing loans were increasing quickly. Continuing high domestic interest rates during the second half of the 1960s, devaluation, and tight control over credit hit domestic firms hard as discussed above, especially those that had borrowed from abroad. The debt-equity ratio of manufacturing firms had increased from 93 percent in 1965 to 394 percent in 1971 (Table 5). The world economic recession made things worse. The net profit ratio of the manufacturing sector as a whole fell sharply (Table 5). Non-performing loans started to pile up. Under tight credit control, domestic banks could not help firms finance their increased foreign loan payments. Businesses turned to the last available resort: the curb market, with its hefty interest rate (Table 4) and short-term maturity. When they could not pay back the curb, they sank. The government assumed managerial control over thirty firms in 1969, all of which were recipients of foreign loans. By 1971, the number of bankrupt enterprises that had received foreign loans climbed to 200; Korea faced its first financial and debt crisis.

¹² However, since all the banks were owned by the government, during this period they did not face bank runs.

Table 5. Financial Indicators in the Manufacturing Industry

(Percent)

	Debt/equity ratio ^(a)	Interest expenses/ net sales ratio	Net profit/ net sales ratio
1963	92.2	3.0	9.1
1964	100.5	4.9	8.6
1965	92.7	3.9	7.9
1966	117.7	5.7	7.7
1967	151.2	5.2	6.7
1968	201.3	5.9	6.0
1969	270.0	7.8	4.3
1970	328.4	9.2	3.3
1971	394.2	9.9	1.2
1972	313.4	7.1	3.9
1973	272.7	4.6	7.5
1974	316.0	4.5	4.8
1975	339.5	4.9	3.4
1976	364.6	4.9	3.9
1977	350.7	4.9	3.5
1978	366.8	4.9	4.0

(a) Total liabilities/net worth

Source : Bank of Korea, "Financial Statements Analysis," Various issues

The business community went into an uproar. The Korean Federation of Industrialists (KFI) urged immediate remedies, though something short of declaring national bankruptcy to the international financial community to bail out firms (Woo, 1991). The government originally considered mobilizing special funds of ten billion won (about 3.3 percent of the total money supply). Business responded that the amount was far short of what was required (Kim 1990). After consultation with leading business leaders, the government concluded that extraordinary measures were necessary to cushion the financial burden of the debt-ridden firms; it started to prepare measures in complete secrecy (Kim 1990).

In August 1972, the government issued its Economic Emergency Decree, with the purpose of baling out the debt-ridden corporate sector. It included an immediate moratorium on the payment of all corporate debt to curb lenders and an extensive rescheduling of bank loans at reduced interest rates. The moratorium was to last three years, and after this period all curb funds would have to be turned into five-year loans at the maximum annual interest rate of 16.2 percent—this at a time when the prevailing market rate was more than 40 percent.¹³ The bank interest rate on loans up to one year was

¹³ The curb market had long been part of the dualistic financial system in Korea, and had proved flexible, pervasive, and resilient under the repressed system. While outside the rule of law, it was tolerated, if not

reduced from 19 percent to 15.5 percent. Approximately 30 percent of the short-term commercial bank loans to businesses were converted into long-term loans, to be repaid on an installment basis over a five-year period at an 8 percent annual interest rate, with a three-year grace period. This conversion was ultimately backed by the central bank, which accepted special debentures issued by the commercial banks.

These measures had considerable repercussions throughout the economy. They shifted the crushing burden of the corporate sector's debt service payment (caused by the overexpansion of debt and the devaluation of the won to support export competitiveness) to domestic curb lenders and bank depositors. The interest burden on business firms was lightened significantly. The ratio of interest expenses to sales volume for manufacturing firms dropped sharply from 9.9 percent in 1971 to 7.1 percent in 1972, and then to 4.6 percent in 1973 (Table 5). As the financial situation of the corporate sector improved, the non-performing loan problem of the banks was also mitigated. As the economy recovered, the share of non-performing loans of commercial banks fell from 2.5% in 1971 to 0.9% in 1973. Total investment grew by 40 percent, and export growth was almost 100 percent in 1973 (Table 6). The real growth of the economy in the first quarter of 1973 increased to 19.3 percent from 6.4 percent for the same period of 1972 (Kim 1990).

Table 6. Share of NPLs and Profitability among Commercial Banks

	(Percent)			
	1971	1972	1973	1974
Share of NPLs ^(a)	2.46	2.24	0.92	0.63
Net income / total assets	0.28	0.21	0.30	0.78

(a) Non-performing loan/total credits. Non-performing loans are defined as those against which actions of collection or other measures are necessary, regardless of whether they are secured with collateral (classified as fixed), unsecured (classified as questionable) or judged to be uncollectible (estimated loss). The definition of NPLs was much more lax in the 1970s. If loans had been classified following the correct international standards, the NPL ratio would have been much higher than shown in this table.

Source: Bank of Korea, quoted from P.J. Kim (1990).

However, this drastic measure aggravated the moral hazard problem of corporate firms and banks. The government's strong risk partnership with highly leveraged firms, as confirmed by the 1972 measure, further encouraged firms to depend on it for support, without giving sufficient attention to the risks of their investment expansions. The efficiency of the banking system was also hampered, because once the rescue by the government was assured, banks had little incentive for serious credit evaluation and monitoring.

implicitly encouraged, by the government, because it was the only source from which households and some business could obtain loans. During phases of tight monetary policy—for instance, during 1969-72—the curb market also became a major source of funds to large firms. When, after the moratorium, all curb debtors and creditors were ordered to register with the government, the amount totaled 42 percent of total bank loans (including loans from the KDB).

The Heavy and Chemical Industry (HCI) Drive

The lapse to more repressive financial policies was also motivated by a policy shift toward promoting HCI (which required an enormous amount of low-cost financing). This was a significant departure from the export-oriented, non-sectoral-biased financial subsidies adopted throughout the 1960s.

Table 7. Interest Rates, 1972-1979

Year	Inflation (CPI)	Time deposits ^(a)	Bank loans			
			General	NIF ^(b)	Export	Curb market
1972	11.7	15.0	15.5	-	6.0	39.0
1973	3.1	12.6	15.5	-	7.0	33.2
1974	24.3	15.0	15.5	12.0	9.0	40.6
1975	25.3	15.0	15.5	12.0	9.0	47.9
1976	15.3	15.6	18.0	14.0	8.0	40.5
1977	10.1	15.8	16.0	14.0	8.0	38.1
1978	14.4	16.9	19.0	16.0	9.0	41.7
1979	18.3	14.4	19.0	16.0	9.0	42.4

(a) One-year time deposits at banks.

(b) National Investment Fund

Source: Bank of Korea, *Economic Statistics Yearbook*, various issues

The government adopted two important measures to support the HCI drive: it established the National Investment Fund (NIF), and expanded BOK discounts. HCI development required a large amount of term financing. To cope with this, in December 1973, the government established NIF to finance long-term investments in HCI plants and equipment at subsidized interest rates (Table 7).¹⁴ NIF was mobilized through a combination of funds from private financial intermediaries and the government, but predominantly from the former.¹⁵ Although it did not hold a large share of total bank loans, it provided more than 60 percent of the term finance for HCI equipment investment during 1975-80. The interest rates were kept low to support large-scale investments, with real interest rates fluctuating around zero (Table 7).

¹⁴ According to Duck Woo Nam, the finance minister at the time, he was compelled to establish NIF given the imperative of the heavy industry program for project financing, thus attempting to minimize the burden on banking operations (see Nam 1992).

¹⁵ See Cho & Kim (1997) for a detailed discussion on the operation and effects of NIF.

In conjunction with these measures, BOK expanded its rediscount facility to support HCI. The list of qualified bills for rediscounting by BOK now came to include both those acquired by qualified firms in HCI and those associated with raw material imports for HCI. In consideration of the long gestation period of investments in the sector, BOK also increased the maximum loan period for equipment investment from eight to ten years. Furthermore, it enacted the “Guide to Bank Loans”: it added HCI to the list of high-priority industries for financial support, to induce more lending by banks in the area. The Act also curbed or—in some cases prohibited—some service industries from being financed by banks.

As a compensatory action, the government introduced a new requirement for loan portfolio management to induce more financial support to small and medium-size companies (SMCs), thus protecting them from being squeezed out of bank loans under the HCI drive. After March 1976, commercial banks were required to meet a government-set minimum amount of loans to SMCs. However, the government did not strongly enforce this requirement, and seldom charged penalties for non-compliance.

Over-expansion of Investment and the Reemergence of Debt Problems

The investment and domestic credit expansion became very rapid again in the 1970s due to the strong HCI drive. This was supported not only by domestic monetary expansion but also by heavy foreign borrowing. After the first oil shock, ‘petro dollars’ grew rapidly and recycled through the eurobanks. Korea borrowed heavily from eurobanks in the 1970s (Appendix Table 1). Its borrowing from the Euromarket was second only to Brazil and Mexico, which both fell into debt crisis in the early 1980s. This helped to achieve high economic growth, but led to an increased debt ratio for corporate firms. As the year 1979 began, the structural problems of the Korean economy became obvious. Exports fell and inflation began to soar. By early 1980s, the country faced a second economic crisis.

3.4. The Second Financial Crisis and Limited Attempts at Financial Liberalization (1980-86)

Government intervention in favor of targeted industries created a huge overcapacity in HCIs and unbalanced growth between large and small firms. Financing a large portion of investment with high-powered money led to chronic inflation. By the end of the 1970s, many believed that the effectiveness of the government-led strategy for economic growth in the 1960s and 1970s had diminished and should not be continued in the 1980s.¹⁶ Recognizing the seriousness of the problem, the government attempted to reduce the scope of credit intervention. During 1981-83, commercial banks were privatized. The interest rate gap between policy loans and general loans was almost completely eliminated in 1982 (see Table 8). In addition, the government reduced the number of industries that were eligible for policy loans, and moved away from industry-specific targets and toward functional support, such as for R&D.

¹⁶ Cho and Cole (1992) discuss the changes in financial sector policies in the 1980s.

Table 8. Interest Rates, 1979-1991

Years	Inflation (CPI)	Time deposits ^(a)	Bank loans			Curb market
			General	NIF ^(b)	Export	
1979	18.3	14.4	19.0	16.0	9.0	42.4
1980	28.7	19.5	20.0	19.5	15.0	44.9
1981	21.3	16.2	17.0	17.5	15.0	35.3
1982	7.2	8.0	10.0	10.0	10.0	33.1
1983	3.4	8.0	10.0	10.0	10.0	25.8
1984	2.3	10.0	11.5	11.5	10.0	24.8
1985	2.5	10.0	11.5	11.5	10.0	24.0
1986	2.8	10.0	11.5	11.5	10.0	23.1
1987	3.0	10.0	11.5	11.5	10.0	22.2
1988	7.1	10.0	13.0	11.5	10.0	21.2
1989	5.7	10.0	12.5	11.5	10.0	18.9
1990	8.6	10.0	12.5	11.5	10.0	20.4
1991	9.3	10.0	12.5	11.5	10.0	21.2

(a) One-year time deposits at bank.

(b) National Investment Fund

Source: Bank of Korea, *Economic Statistics Yearbook*, various issues

However, widespread problems with debt servicing by many over-expanded industrial firms and restructuring in the mid-1980s forced the government to continue to intervene in credit allocations. As discussed above, the corporate sector's debt ratio increased rapidly under the government-led industrial development strategy in the 1970s (Table 5).

The economy fell into a severe recession in 1980 as a result of a series of external shocks, such as the second oil shock and domestic political unrest caused by the assassination of President Park. As a result, the economic growth rate became negative and the unemployment rate increased sharply.

The Second Financial (and foreign debt) Crisis

Meanwhile, foreign confidence in the Korean economy deteriorated as a result of the political and social unrest following president Park's assassination and the economic recession. Foreign debt amounted to roughly US\$15 billion at the end of 1978, while total annual exports were about US\$12 billion. With the expanding current account deficit since 1979, the country needed additional foreign capital inflow, but it faced difficulties in raising funds in the international financial markets. It came close to default, and asked for help from the IMF. It withdrew approximately 500 million SDR from the

IMF based on a stand-by agreement. However, the foreign debt continued to increase—up to US\$37 billion at the end of 1982. In fact, most other countries which had borrowed heavily from abroad had to impose moratoriums on foreign debt payments. Korea was an exception in this regard.

The 1980 economic crisis was the result of a combination of several weaknesses (Lee 2001). It was a foreign debt crisis that emerged due to the widening current account deficit and lack of availability of foreign funds. But more deeply, it was a corporate and banking crisis. Thanks to the 1972 Emergency decree and the promotion of HCI through aggressive investment support, the economy recorded growth rates averaging around 10 percent during 1976-78. Firms which initially had been skeptical of investing into HCI raced to participate in investment projects after seeing the government's determination to support these industries. This led to huge overcapacity in HCI. The stagnation of the domestic economy as well as the global economic recession made the situation worse. Consequently, firms in the sector became delinquent in servicing their debts.

The government's initial policy response was a stabilization policy under the IMF program. Interest rates were increased and the fiscal budget was tightened. In 1980, the won was devalued by about 30%. The government promoted trade liberalization, reducing restrictions on imports. In the financial sector, it attempted to reduce the selective credit programs.

However, these measures led to a severe economic contraction, with negative growth recorded in 1980. In response, the government relaxed the monetary policy, cutting interest rates from 20% in 1980 to 10% in 1982. Its fiscal stance remained tight or balanced. Owing to the success of the price stabilization, however, lowered interest rates still generated significantly positive real rates.

At the same time, the government intervened heavily in corporate restructuring. As the world recession continued, many debt-ridden firms became insolvent, particularly those in the overseas construction, shipping, textile, machinery, and lumber industries. They generated a huge amount of nonperforming loans. Korea came close to a currency and financial and debt crisis. Given concerns about unemployment and financial instability, the government decided to bail out insolvent firms. It also provided financial incentives for creditor banks to write off bad loans, extend debt maturity, and replace existing loans with a longer-term ones at a preferable rate. It forced troubled firms to merge to reduce overcapacity, and pushed sounder firms to take over the troubled ones. In connection of this, it offered financial packages that included cheap bank loans, and supplied a significant amount of new loans (what it called "seed money").¹⁷ To mitigate the financial burden of the banks, BOK delivered a special loan of about 1.8 trillion won (comprising 5 percent of total bank loans) at the exceptionally low interest rate of 3 percent annually; the general bank loan rate was around 12 percent.

The economic crisis of the 1980s could be contained, again, by a growing up strategy with reduced interest rates, relief-loan package and special credit supports by the banks which in turn were supported by BOK's special lending. A foreign debt crisis was

¹⁷ For instance, the shipping industry was rationalized to facilitate its 1984-85 restructuring. Sixty-three shipping companies were merged into 17, and about 3 trillion won of loan principal and interest owed by the shipping companies was rescheduled to be repaid over 20 years after a 10-year grace period, at a very low interest rate.

avoided by seeking IMF support (US\$ 1,500 million) and loan commitments by the Japanese government (US\$ 4 billion).

Small and Medium Company Finance

Beginning in 1983, in order to check the expansion of large firms, small and medium companies (SMCs) were placed higher on the priority list for credit allocation along with the government's attempt to promote balanced growth. In 1983, BOK extended a discount window to SMCs for R&D activities, environmental protection investment, and bills associated with financing the purchase of SMC products. The government tightened its monitoring of the required ratio of SMC loans to total loans. It also required that NBFIs, such as short-term financing companies, meet the SMC lending requirement. But the impact of these measures was not very significant. The *chaebols* continued to expand and to take a greater share of the domestic market.

The Rapid Growth of NBFIs and the Changing Structure of the Financial Market

The growth of the financial sector in Korea during the 1980s was very rapid—roughly twice the GNP growth rate. This expansion occurred predominantly among the NBFIs, a pattern that caused a sharp decline in the relative importance of banks. The growth of and changes in the structure of the financial sector are depicted in Table 9. Total credit of these financial institutions (banks and NBFIs) was equal to 56 percent of GNP in 1979; it rose to 110 percent by 1999. The share of bank credit in total financial credit, which was 66 percent in 1979, dropped to just 30 percent by 1990. The ratio of NBFI credit to GNP rose from 10 percent to about 77 percent between 1979 and 1990, a remarkable growth. (Table 9)

Table 9. Financial Sector Development, 1979 – 90

Item	(Percent)											
	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
M1/GNP	11	10	9	11	11	10	10	9	9	9	10	9
M2/GNP	32	34	34	38	39	38	36	36	37	37	40	39
M3/GNP	43	48	51	60	65	69	70	77	85	92	104	111
Bond/GNP	-	4	5	6	8	10	9	9	8	8	9	11
Bank credit/GNP	37	43	44	49	51	52	52.3	52.2	51.3	48.5	53.4	54.2
NBFI credit/GNP	19	25	28	33	37	42	41.6	43.8	44.6	45.1	54.7	61.6
Credit share												
Bank	66.1	63.2	61.1	59.8	58	55.3	55.7	54.4	53.5	51.8	49.4	46.8
NBFIS	33.9	36.8	38.9	40.2	42	44.7	44.3	45.6	46.5	48.2	50.6	53.2
National saving	29.9	24.4	24.3	25.4	29.0	31.0	31.1	34.9	38.4	40.5	37.6	37.5

- Not available

a. M3 is defined as M2, plus deposits at NBFIS, and commercial bills sold and certificates of deposits and debentures issued by deposit money banks.

b. Value of listed corporate bonds.

c. As a percentage of GNP.

Source: Various issues of Bank of Korea, *Economic Statistics Yearbook*.

On the liability side of the balance sheet of financial institutions, there was a modest decline in M1 in relation to GNP; a moderate increase in M2 compared with GNP; and a near doubling of the M3 to GNP ratio (Table 9). M3 includes a small amount of the certificates of deposits and debentures of banks along the deposits of all NBFIs, so the difference between M2 and M3 is not a precise measure of nonbank liabilities. Nevertheless, it roughly approximates the size of NBFI deposits, which accounted for much of the growth in the M3 to GNP ratio. This finding again confirms the important role played by the NBFIs in the growth of the financial system. Similarly, the share of bank deposits in total deposits declined from 86 percent in 1974 to 58 percent in 1984 (Appendix Table 2).

Partly in reaction to the consequences of its strong interventions in credit allocation, the government changed direction in the 1980s and reoriented its financial policies. The intent of the shift was to liberalize—to give financial institutions greater freedom to set their own prices and to attract and allocate funds. Accomplishing the shift turned out to be more difficult and gradual than anticipated, especially in the banking sector, which had been the most pervasively controlled part of the financial system and had carried the major burden of financing heavy industry investment.

A central feature of the liberalization policy was the sale, between 1981 and 1983, of the government's shares in the large commercial banks. Continued government control of interest rates at all banks, however, along with the high proportion of nonperforming bank loans and heavy dependence on BOK for low-cost funds to support their outstanding loans, left the privately-owned commercial banks very vulnerable. A substantial part of their outstanding loans are still policy-related. Highly indebted firms; declining industries such as shipping, ship-building, and construction; and industrial restructuring have continued to be seen by the government as justifications for

intervention in credit allocation, despite the intention to deregulate. The banks cannot afford to ignore the government's suggestions, despite their shift to private ownership.

The NBFIs, in contrast, have always been privately owned (mostly by *chaebols*) and have been both less controlled and less protected by the government. They have had to mobilize their own funds in competitive markets and to earn enough on their loans and investments to cover the cost of their funds. Supervision over their operations has been limited, and the government has not been committed itself to assisting them when they became insolvent.¹⁸

Thus, compared to the banks, the NBFIs have had to live more by their own wits, and they have been very effective in mobilizing funds and financing businesses. Thanks to a combination of lax government supervision, unreliable accounting statements, and high growth, serious problems were either avoided or postponed.

Among the NBFIs, the Investment and Finance Companies (IFCs)¹⁹ were the most important, followed by the life insurance and investment trust companies. The IFCs dealt in short-term commercial paper, whereas the insurance and investment trust companies were attracting longer-term funds that they invested in corporate bonds or direct loans to businesses (see Appendix Table 3 for the deposits of NBFIs).

The markets for corporate bonds and commercial paper also grew rapidly in the 1980s, with their expansion facilitated by several factors. First, interest rates were determined relatively freely, depending on the market situation, and were higher than the deposit rates at the banks. Second, the tight control over domestic credit in the banking sector forced firms to turn either to the direct credit market or to NBFIs. Third, the guarantees of corporate bonds by the banks reduced risks and helped the growth of these assets. The institutionalization of bond transactions on repurchase agreements in 1980 also encouraged the rapid growth of a secondary market.

The Effects of Financial Sector Changes on the Corporate Financial Structure

Paralleling the changes in the relative importance of different kinds of financial institutions, there have been changes in the sources of corporate financing. This trend is shown by the composition of external funds raised by the corporate business sector (Table 10). The distinctive feature of these changes is that the share of bank credit decreased significantly, while that of NBFIs and direct financing increased sharply in the 1980s. This shift implies that the share of external funds (NBFI credit and direct financing), with less regulation by the government, expanded to 67.4 percent in 1980-84 from 4.6 percent in 1975-79 and 35.8 percent in 1970-74. In addition, even the bank loans and foreign loans were subject to lowered intervention, leading to less distortion as the interest costs moved closer to the market equilibrium level following the elimination of most preferential lending rates. Therefore, the differential access to loans, although it still existed, did not cause as much difference in the cost of capital as it had in the 1970s. The cost of foreign loans also rose because of the high foreign interest rates and the more flexible exchange rates of the 1980s. The effective real interest rate on foreign loans was close to the corporate bond rate in the 1980s, whereas it was the cheapest form of

¹⁸ After the currency and financial crisis in 1997, the government injected public funds into some major troubled NBFIs. But many of NBFIs were also closed.

¹⁹ These companies were converted into merchant banking companies in the early 1990s.

borrowing in the 1970s, equal to or even cheaper than policy-related loans such as export credits (Cho 1986). Consequently, the cost differentials of the different sources of borrowing were greatly reduced (Table 11).

Table 10. External Funds of the Corporate Business Sector, 1965-84

Source	(Millions of won, %)			
	1965-69	1970-74	1975-79	1980-84
Indirect financing	87.8 (47.4)	391.2 (55.9)	1,885.7 (56.5)	5,284.4 (53.0)
Borrowing from financial institutions	87.8 (47.4)	387.9 (55.4)	1,883.7 (56.5)	5,001.8 (50.2)
Banks	69.5 (37.5)	282.8 (40.4)	1,197.9 (35.9)	2,372.9 (23.8)
NBFIs	18.3 (9.9)	105.1 (15.0)	685.8 (20.6)	2,628.9 (26.4)
Government loans	- (-)	3.3 (0.5)	2.0 (0.1)	282.6 (2.8)
Direct financing	27.1 (14.6)	145.3 (20.8)	767.9 (23.0)	4,083.7 (41.0)
Stocks	26.4 (14.3)	124.6 (17.8)	458.0 (13.7)	2,059.3 (20.7)
Bonds	0.7 (0.4)	12.0 (1.7)	216.5 (6.5)	1,441.9 (14.5)
Commercial paper	- (-)	8.7 (1.2)	93.4 (2.8)	582.5 (5.8)
Foreign debts	70.2 (37.9)	163.3 (23.3)	681.1 (20.4)	601.6 (6.0)
Total	185.2 (100.0)	699.8 (100.0)	3,334.7 (100.0)	9,969.7 (100.0)

-Not available

Note : Data are annual averages. Numbers in parentheses represent percentages of the total. Noncorporate enterprises and government enterprises are included in the flow funds accounts since 1980.

Source: Flow of Funds, Bank of Korea, 1985

In the 1970s, the firms or industries that were favored by the government had greater access to subsidized credit-bank loans and foreign loans, which were tightly rationed. As a result, the cost of their capital was much lower than that of other firms or industries, which had to depend on different sources of borrowing with much higher costs. There were thus significant variations in the cost of capital across firms and sectors of the economy, that led to substantially different marginal rates of return on capital among the different sectors, and hence to a distorted allocation of capital. The gaps in the 1980s were as shown in Table 11.

Table 11. Credit Access and Borrowing Costs by Sector

		(Percent)		
		1973-81	1982-86	1987-90
Access to borrowing ^(a)				
Manufacturing	(A)	40.4	31.5	27.7
Large firms	(B)	40.9	31.6	27.0
SMCs		32.7	31.3	31.4
(A) - (B)		8.2	0.3	-4.4
Exports	(C)	45.1	35.9	30.3
Domestic	(D)	37.6	28.8	26.3
(C) - (D)		7.5	7.1	4.0
HCI	(E)	40.7	32.2	28.2
Light industry	(F)	39.8	30.3	27.0
(E) - (F)		0.9	1.9	1.2
Average borrowing ^(b)				
Manufacturing	(G)	13.3	14.0	13.0
Large firms	(H)	13.0	14.0	12.6
SMCs		14.9	14.2	14.3
(G) - (H)		-1.9	-0.2	-1.7
Exports	(I)	12.6	12.7	12.6
Domestic	(J)	14.0	14.8	13.2
(I) - (J)		-1.4	-2.1	-0.6
HCI	(K)	12.1	13.5	12.7
Light industry	(L)	14.9	14.9	13.5
(K) - (L)		-2.8	-1.4	-0.8
Memo items:				
Wholesale, retail, and hotels		17.3	16.9	15.3

(a) Bank loans and foreign loans/total assets.

(b) Average borrowing cost = financial cost/(corporate bond + foreign loans + loans from the financial institutions).

Source : Bank of Korea, "Financial Statements Analysis," various issues.

3.5. The Current Account Surplus and the Shift in the Priority of Policy Loans (1987-90)

In 1986, the Korean economy began to run a large current account surplus owing to the steep appreciation of the Japanese yen. The economy was booming again, with annual growth rates above 10 percent. The large current account surplus made monetary control difficult, and put pressure on BOK to reduce its policy-based rediscount facilities.

In reducing the policy loans, BOK cut those to large corporations first. For instance, per-dollar export credits for large firms fell from 740 won at the end of 1985 to zero at the end of 1988 (see Table 12). Since February 1988, large corporations have been completely excluded from export credit programs. Furthermore, since February 1989,

BOK has excluded the commercial bills of large corporations from eligibility for BOK rediscounting.

Table 12. Proportion of Export Loans Rediscounted by the Bank of Korea

	(Won per dollar of export)				
	1985	1986	1987	1988	1989
Large firms	740	670	175	0	0
Small and medium size firms	740	700	520	450	550
Won/dollar rate	890	861	792	684	680

Note: Figures are as of the end of each year.

Source: Bank of Korea, "The 40-year History of the Bank of Korea."

In recognition of the distortionary impact of direct interventions, and seeing that direct subsidies for targeted industries were increasingly becoming the focus of trade friction, the government changed its industrial policy from directed credit support to indirect, nonspecific credit support. In doing so, it confined its explicit credit intervention to "structural adjustments" and changed the mode of intervention from industry-specific support to function-oriented support, such as for R&D.²⁰

Political democratization increased the demand for social equity and income redistribution. Many policy loans were made available to previously disadvantaged sectors, such as SMCs, agriculture, and housing. Consequently, a growing share of bank loans was allocated to SMCs (Table 13).

Table 13. Share of Loans by Domestic Banks to SMCs and the 30 Largest *Chaebols*^(a)

	(Percent)			
	1988	1989	1990	1991
Loans to SMCs	48.1	50.1	55.5	56.8
Loans to the 30 largest <i>chaebols</i>	23.7	20.7	19.8	20.4

(a) Domestic banks include deposit money banks only.

Source: Bank of Korea, and Office of Bank Supervision.

²⁰ Pressure from the government and political circles on the basic management to extend credit to favored borrowers continued through formal channels.

Yet, at the same time, in response to severe public criticism, credit control over large business groups was intensified to reduce the concentration of bank loans to *chaebols*. In 1987, the basket control of the credit system (credit ceilings) was introduced to limit the shares of bank loans to the nation's 30 largest business groups. Furthermore, in order to prevent corporate capital structures from deteriorating through excessive borrowing and to increase credit to SMCs, the Office of Bank Supervision intensified supervision to ensure that the 30 largest conglomerates would self-finance a certain proportion of their new investment by disposing of their shareholdings in affiliates or real estate holdings. Specifically, the Board enjoined the conglomerates to repay their debts by raising new capital in the stock market. This step led to a gradual reduction in the share of bank loans to the 30 largest conglomerates—from 24 percent in 1988 to 20 percent by the end of 1991 (Table 13).

However, this did not mean that total credit to the large *chaebols* was actually reduced. As NBFIs, which were under the control of the *chaebols*, expanded rapidly, much more rapidly than the banks, the *chaebols* were able to finance their investment needs through them and through the securities market which allowed for their continuing rapid growth.

Economic Deterioration (1989-92) and Stalled Financial Liberalization

The economic situation during 1989-92 worsened compared to the period from 1986-1988. The main economic difficulties can be described as a slowdown of economic growth, widening current account deficit, and increased inflation. The fall of the current account from surplus to deficit reflected the loss of international competitiveness of Korean firms and a large increase in imports. Korea began to carry out political democratization under President Rho (1988-1993), and this caused an explosion of labor disputes and a rapidly increasing wage rate. Trade liberalization, including in travel and services, led to increased imports of goods and services. Along with the transition from an authoritarian to a democratic political system, the government faced pressure to reduce direct interventions especially in wages and imports of consumer goods. After the large current account surplus posted during 1986-88, the US government put pressure on the Korean government to appreciate Korean won. The won appreciated from 881 per dollar in 1986 to 671 per dollar at end of 1989; this eroded the competitiveness of Korean exports significantly.

With this deterioration of the economic situation, and the weakening of the corporate sector's financial situation, the progress of financial liberalization stalled. There was much talk, but real progress in financial liberalization was limited. The government announced full interest rate liberalization at the end of 1988, but this was soon negated when the government resumed control in 1989.²¹

Capital market opening was also limited. The only increase came in terms of the maximum amount of foreign exchange available exclusively for outbound foreign direct investment. In some areas, liberalization actually slid backwards. For instance, in December 1988, in order to boost the stock market, the government forced the commercial banks to lend 2.7 trillion won (more than 2% of GDP) to investment and trust

²¹ The main reason for the reversal was the government's concern for increasing interest rates due to the high demand for credit. The government partially liberalized interest rates again starting 1991.

companies so that they could buy stocks. In 1992, BOK lent 2.9 trillion won to commercial banks to push them to bail out troubled investment and trust companies which had suffered major losses from their stock investments in 1988.

4. Financial Liberalization and the Crisis (1993-1997)

The Korean government became more active in reforming the financial sector with the inauguration of the President Kim Young-sam administration (1993-1998), and progress in financial liberalization was accelerated. The government announced its “Blueprint for Financial Liberalization and Market Opening” in July 1993, and the “Foreign Exchange Reform Plan” in December 1994. Many restrictions on financial markets and foreign exchange transactions were relaxed or abolished in order to expedite the ‘globalization’ of the Korean economy, which was a keyword of Kim’s administration. Financial deregulation was also accelerated by the government drive toward ‘deregulation,’ another keyword of the administrations. The administration’s intention to become a member of OECD by the end of 1996 also contributed to fairly rapid progress in financial liberalization and opening.

The financial liberalization in the 1990s eventually led to the 1997 financial crisis. Thus, this chapter will review the progress and impact of financial liberalization, both domestic and external, in some detail and analyze how the liberalization increased the vulnerability of Korea’s financial system.

4.1. The Progress of Financial Liberalization

Interest Rate Liberalization

Interest rates had been liberalized before 1993, but on a piece meal basis. However, beginning in 1993, the government approached interest rate liberalization with a comprehensive plan. It announced a four-stage plan for interest rate deregulation in that year (Appendix Table 3). In the first stage, in 1991-3²², most of the short-term lending rates of banks²³ and non-bank financial institutions were deregulated, while deposit rate liberalization extended only to deposits with maturities of at least three years. At the same time, interest rates on various money and capital market instruments, including issue rates of corporate bonds with maturities of over two years, were also deregulated.

The more extensive second stage, undertaken in 1993, covered all lending rates of bank and non-bank financial institutions excluding loans financed by the government or by BOK rediscounts. It also freed rates on long-term deposits with maturities of two years or more, and the issue rates of all bonds including financial debentures.

Part of the third stage of interest rate deregulation was implemented ahead of schedule in 1994. The restrictions on the minimum maturities of CDs, large-value RPs, and CP were also relaxed in 1994. At the same time, deposit rates with maturities of at least one year and rates on loans rediscounted by BOK were liberalized. The remaining

²² The plan included what had already been liberalized during (1991-93) as the first stage, and de facto started from the second stage.

²³ Such as over draft account rates.

items in the third stage of deregulation were liberalized in July and November 1995. In theory, all the plans were put into place ahead of the original schedule, with the last stage of the plan being implemented in July 1997.

However, the actual implementations of the interest rate liberalizations were not exactly the same as the formal ones, as will be discussed later—the liberalization of short-term market instruments such as interest rates on commercial paper (CPs) advanced fairly quickly while de facto administrative guidance was maintained on bank lending and deposit rates even after the formal liberalization.

Reduction of Barriers to Entry

Barriers to entry and restrictions on the business scope of financial institutions were also eased. Under the act concerning the merger and conversion of financial institutions, eight short-term investment and finance companies were converted into five securities companies and two nationwide commercial banks (Hana Bank and Boram Bank) in 1991. In addition, Peace Bank, the fourteenth nationwide commercial bank, was established in 1992. Investment and finance companies were given permission to convert into merchant banking corporations in 1994.

Reduced Policy-Based Loans

Moreover, policy-based loans to specific sectors such as export industries and small- and medium-enterprises were phased out. The credit control system in relation to credit to *chaebols*, under which banks must ensure that the share of their loans to major business groups among their total loans does not exceed a certain ratio set by the regulatory authorities, was also relaxed.

Liberalization of Foreign Capital Flows

Korea took a cautious approach toward the liberalization of foreign capital flows. Concerned about massive capital inflows that could destabilize the domestic macroeconomic environment, it liberalized the capital account on a gradual basis. The gap between domestic and foreign interest rates was substantial and there was strong corporate demand for cheap foreign capital.

Given its intention to join the OECD however, Korea's opening of the capital market began to accelerate, starting in 1994. In opening the capital market, the government took the following measures: first, a gradual increase in the limit of foreign investments in the domestic stock market; second, the further relaxation of short-term trade-related borrowing; and third, the relaxation of control over the issuance of Korean firm's securities in the foreign capital market and offshore borrowing (see Cho 1999). However, foreign investments in government securities and corporate bonds issued in the domestic market were strictly controlled. Substantial restrictions on foreign direct investments were also maintained. It was only when Korea fell into crisis and embarked on the IMF program that the capital market was completely opened. Korea also had to restructure its policy toward foreign direct investment. But from early on, there had been no significant restrictions on the foreign borrowings of Korean banks and merchant

banking companies, especially with regard to short-term borrowings.²⁴ The result was a dramatic increase in the short-term foreign debts of financial institutions to finance the strong investment demands of the corporate sector as the economy entered a boom in 1994.

4.2. The Impact of Financial Reform

4.2.1. Rapid Growth of Financial Sector

The financial liberalization in the 1990s further accelerated the growth of the financial sector, which had already been growing fast in the 1980s. M3 rose from 114% of GDP in 1991 to 160% of GDP in 1996. This helped to finance the rapid expansion of corporate investment in the 1990s. The average ratio of investment to GNP during 1993-1996 was 2.7%.

Table 14. Growth of the Financial Sector

	(Percent)							
	1990	1991	1992	1993	1994	1995	1996	1997
M3/GNP	111.14	114.28	124.96	133.68	146.16	151.02	159.14	168.33
M2/GNP	38.54	39.09	40.33	42.26	43.97	44.11	46.14	48.92
Investment/GNP	37.6	39.8	37.3	35.4	36.5	37.3	38.1	34.4

Note: FIR = Total domestic financial assets/GNP

Source: Flow of Funds, Bank of Korea

In the past, the Korean government had restricted the entry of firms into industries where it was deemed that additional entry could result in over-capacity. This control over finance and entry checked, to some extent, reckless investment drives and over-capacity build-ups, which could easily have arisen due to the moral hazard effect of the government's implicit risk partnership and the strong rivalry among *chaebols*.²⁵ However, with the drive toward economic deregulation under the Kim Young-Sam administration, the government retreated from such intervention.

When the government deregulated the barriers to entry, it should have also instituted a proper corporate governance structure and competition policies to check the reckless investment demand by large *chaebols*. For instance, cross subsidization among affiliated firms within *chaebols* through the cross guarantee of loans and transfer pricing should have been limited, and clearer signal should have been given by the government that there would no longer be bailouts of troubled large firms. But it was only after the crisis broke out that this new competition policy was introduced.

²⁴ However, the government maintained some quantitative restriction on long-term borrowing by banks as a means of capital flow management. A broad limit on long-term borrowings was guided by the balance of payment projection (or target) of the year.

²⁵ Rivalry among the *chaebols* was one of the factors that caused the competitive entry into certain key industries such as automobiles, electronics, and hence contributed to the build-up of over-capacity.

Under these circumstances, financial liberalization and credit expansion helped big *chaebols* to expand their investment quality and build up huge over-capacity in many industrial areas.

4.2.2. *Changes in the Financial Market Structure*²⁶

The four-stage interest rate liberalization plan announced in 1993 seems to have aimed at the principle of moving gradually from long-term to short-term rates, from the securities market to bank interest rates, and from large- to small-denomination instruments. However, the final plan announced did not closely followed this principle (see Appendix Table 3).

Furthermore, the actual implementation of liberalization deviated substantially from the officially announced plan. Interest rates for bills such as commercial papers (CP) were formally liberalized in 1991, but it was only in 1993/4 that they were actually liberalized. Bank interest rates continued to be controlled through moral pressure or administrative guidance until 1996, despite being formally liberalized in 1993. For instance, according to the official announcement, bank loan rates (except for policy-based loans supported by the rediscount window of the central bank) were completely liberalized by November 1993. But the movement of bank loan rates clearly shows that they were not fully deregulated at that stage (Appendix Figure 1). Corporate bond rates were indirectly controlled until mid-1997, through the government's control of the total monthly amount of issuance even after the formal liberalization in 1991.²⁷

As a consequence, for most of the period from 1994-97, three-month CP yields were higher than three year corporate bond yields, which in turn were higher than bank prime lending rates (Appendix Figure 1). Only often full liberalization of all these rates, the level of bank prime lending rates became higher than corporate bond yields; and short-term securities yield became higher than the long-term yield. Interest rates on time deposits of less than 1 year maturity were liberalized in July 1995, but were indirectly controlled until the middle of 1996, and remained below the rates of close substitutes (Appendix Figure 2).

Shift of Funds to the Short-term Market

The sequencing of liberalization of interest rates caused a rapid shift of funds toward the short-term CP market²⁸ between 1993 and 1996 (Table 15). As a result, the corporate sector became increasingly reliant on CPs for financing. CPs, which accounted for only 2.5% of total corporate financing during 1990-92, increased to 13.1% during 1993-96, peaking at 17.5% in 1996 (Table 16).

²⁶ This section is based on Cho (2001a).

²⁷ The government allowed the Association to determine who would be able to issue the bonds, with the overall amount being guided by the government. Usually, the Securities Association allocated the amount between applicants. The reason why the government was so conscious of the level of the corporate bond yield was that it was the most observable market rate.

²⁸ In Korea, CPs were used mainly by finance and investment companies and merchant banking companies. They were accepted by these institutions and then discounted by individuals or institutional investors.

Table 15. Growth of Financial Markets (outstanding basis)

	Commercial Papers	Corporate Bonds	Bank Loans	M3
Outstanding (trillions won)				
1991	21.6	43.5	113.0	244.8
1992	25.5	50.1	132.9	298.3
1993	36.1	59.5	152.0	354.9
1994	44.4	72.2	187.1	442.7
1995	61.0	87.5	218.8	527.0
1996	80.8	111.4	254.6	615.0
Growth rates (%)				
(91 – 96)	26.4	18.8	16.2	20.8

Source: Bank of Korea, Monthly Bulletin, various issues

Table 16. Sources of Finance for the Corporate Sector, 1990-97

(%)	1990	1991	1992	1993	1994	1995	1996	1997
Direct Financing	42.4	37.9	41.4	52.9	38.1	48.1	47.2	37.1
CPs	3.7	-3.8	7.6	13.9	4.9	16.1	17.5	4.1
Bonds	21.5	24.2	12.1	14.5	14.2	15.3	17.9	22.9
Stocks	11.8	11.5	13.1	14.7	14.8	14.4	10.9	7.7
Indirect Financing	38.4	41.8	36.3	31.4	44.5	31.8	29.1	37.9
Banks	15.8	19.8	15.1	13.1	20.7	14.9	15.2	12.9
Non-Banks	22.6	22.0	21.1	18.3	23.8	17.0	13.9	24.3
Overseas	6.4	4.1	7.1	1.5	6.6	8.4	10.4	6.1
Others	12.8	16.1	15.3	14.2	10.8	11.7	13.2	18.9
Total	100	100	100	100	100	100	100	100
(Won bn)	(50,748)	(58,180)	(54,889)	(64,982)	(89,040)	(100,016)	(118,769)	(117,041)

Source: Bank of Korea, Monthly bulletin, various issues.

Note: Figures in parentheses express ratios.

One of the reasons why the Korean authorities were slow to liberalize bank interest rates was that they could not abolish policy-based lending entirely. Most of the directed loans earmarked to specific industries had been abolished by the early 1990s, leaving only a general guideline for the allocation of a minimum share of bank loans (40%) to the manufacturing sector. However, the authorities continued to provide policy loans to small and medium-sized firms through the central bank's rediscount window. When the commercial banks discounted bills for small- and medium-sized firms, the BOK rediscounted a certain portion of the banks' discounts. As a result, the BOK's outstanding loans to commercial banks were substantial. To offset this, it had to issue large amounts of Monetary Stabilization Bonds below market rates; these were allocated to banks and NBFIs (Appendix Table 4).

Furthermore, in order to offset the monetary impact of the policy-based loans, the BOK imposed a high reserve requirement on banks. Because of this high ratio (and the implicit control on lending rates), banks could not afford to offer competitive deposit rates even though they had been formally liberalized (Appendix Table 5). For these

reasons, and to ensure low cost of funding to the corporate sector, bank interest rates were guided by the government even after formal liberalization.

The Expansion of Short-term and High Cost Funding

In Korea, banks have been allowed to engage in the trust business, mobilizing funds by issuing beneficiary certificates. While returns on beneficiary certificates should, in principle, be determined *ex-post* by the actual rate of return on the investment portfolio of the trust fund in question, it was common practice in Korea for banks to post a fixed return rate for beneficiary certificates. The authorities controlled this rate indirectly by requiring the trust account portfolio to purchase a certain minimum proportion of public securities, including Monetary Stabilization Bonds, which were issued at below market yields. But from 1993, this portfolio restriction was gradually relaxed, and the gap between yields on public securities and market rates diminished, providing a further effective liberalization of the rate of return on bank beneficiary certificates, which were in competition with the beneficiary certificates of the Investment and Trust Companies (ITCs). With increases in the funding costs (i.e. the yields of beneficiary certificates of the bank's trust account) in 1993, the authorities gave permission to the trust accounts of the banks to purchase CPs, for which the interest rates were completely liberalized. This further facilitated the expansion of the CP market.

This asymmetric treatment of liberalization between bank trust accounts and general accounts was partially motivated by the fact that the authorities had chosen M2 as the target for monetary control; M2 only includes deposits made in general accounts of banks. When, in 1993, it became difficult to meet the M2 growth target (with bank deposit growth resulting from the partial liberalization of long-term deposit rates), the authorities reacted by further liberalizing trust account and not trust accounts instruments and CPs, which were not included in M2. As a result, funds shifted back from deposits to trust accounts in the banks and to the CP market (Table 15), and the growth of M3 accelerated in 1994 (Appendix Figures 3 and 4).²⁹

4.2.3. Increasing Risk with Inadequate Supervision

The Shift to High Risk Assets

As mentioned above, from 1993 trust funds were allowed to be invested in CPs. This was a relaxation of the previous requirement that they be either invested in long-term securities or loaned to firms. At the same time, the maximum share of securities investments allowed in the total asset portfolio increased from 40% to 60% in trust accounts. Thereafter, the share of corporate bonds, CPs, and other securities in trust funds increased rapidly (Table 17), from 47% in 1991 to 65% in 1997, mainly reflecting the rapid increase in their holdings of CPs. Most depositors did not distinguish between time deposit accounts and a trust accounts offered by the same bank, and easily shifted between the two in response to yield differentials. (No Korean bank had ever failed, and depositors assumed that both instruments carried essentially zero risk). The result was

²⁹ Within the bank's deposit business, the share of CDs and long-term deposits expanded at the expense of short-term deposits, whose interest rates remained under control.

that depositors' money was being used to purchase short-term CPs and to finance the long-term risky investments of corporate firms. For instance, Hanbo steel Co. and Kia Automobile Co. made heavy investment for the expansion of their production capacities by issuing CPs during this period. Later on they would not meet payment of maturing CPs and went bankrupt in 1997.³⁰

Table 17. Share of Securities Holdings in Bank Assets

	(Trillion won, percent)						
(%)	1991	1992	1993	1994	1995	1996	1997
General	16.75	18.69	23.12	30.53	41.38	51.07	71.93
accounts	(12.2)	(12.3)	(13.9)	(15.2)	(15.9)	(16.4)	(17.1)
Trust	14.98	21.69	40.55	58.67	87.92	105.98	124.52
accounts	(46.9)	(46.8)	(59.8)	(61.2)	(64.0)	(65.2)	(66.2)

Note : Figures in parentheses are percentage shares

Source: *Statistics on Bank Management*, Office of Banking Supervision, various issues

Lack of Financial Market Infrastructure

While responsibility for supervising bank accounts rested with the Office of Banking Supervision (OBS), under the aegis of the central bank (BOK), the responsibility for supervising trust accounts in banks and in most NBFIs rested with the Ministry of Finance and Economy (MOFE). The OBS and MOFE failed to share information closely or to mutually coordinate their supervision. Banks also took advantage of a serious gap in the prudential regulations limiting their lending to individual borrowers in that these ceilings applied only to loans from their general accounts, and not to those from trust accounts, nor to CPs or corporate bonds held by their trust accounts, even when the money was lent by the same bank to the same firm.

The banks were thus happy to expand their lending or purchasing of CPs through trust accounts, because they could get a higher interest return than they would by lending through bank accounts (since interest rates on the latter were still controlled). The depositors, in turn, were happy to shift their deposits from bank accounts to trust accounts or to purchase CPs that were implicitly guaranteed by merchant banking companies, since these generated a higher rate of return. The monetary authorities were also happy because they could meet the monetary aggregate (M2) target without discouraging corporate investment or compromising the achievement of rapid economic growth.³¹ Corporations could easily finance their investment expansions by issuing CPs, because there was ample demand for them and they were not subject to cumbersome supervisory requirements. It was easy for firms to satisfy the credit assessment criteria required for the issuance of CPs, and the monitoring of the associated investment projects was lax.

³⁰ After the bankruptcy of Kia, it was found that, out of its total debt of 5.6 trillion won 3.7 trillion won was short-term debt of which CPs took substantial portion.

³¹ See the following section for more explanation on this issue.

In fact, an analysis of the credit rating records carried out by the two credit rating agencies in Korea reveals that their assessments of corporations lacked reliability and expertise. Looking at the credit rating records of the 40 companies that went bankrupt in 1997, it is found that Korean rating agencies were extremely lax and unreliable compared to their counterparts in more advanced economies.

Table 18 compares the distribution of the ratings awarded by Korean agencies with that of the U.S. Company, Standard & Poors.

Table 18. Credit Ratings: Comparison between Domestic Korean Agencies and Standard & Poor's (S&P)

	Korean Agencies' Average			Standard & Poor's (U.S.)	
	1997	1996	1995		1995
A1	8.4%	8.2%	6.4%	AAA	1.2%
A2	17.9%	22.0%	21.1%	AA	5.4%
A3	31.1%	33.8%	32.5%	A	16.2%
B	40.6%	35.9%	40.0%	BBB	19.5%
C	0.4%	0.2%	0	BB	26.1%
D	1.3%	0	0	B	28.6%
No Action	0.3%	0	0	CCC	1.1%

Source: Korean Information Service

While ratings from *A1* to *A3* accounted for about 65% in Korea, the equivalent ratings from *AAA* to *A* made up only 22% in the U.S. The minimum rating required to issue CPs in Korea is *B*. 98% of Korean companies received a *B* or above in 1997, while only 42% of U.S. companies received *BBB* (the equivalent rating) or above. *AAA*, the highest rating for securities, was conferred on only 1.2% of the total listed companies in the U.S., while *A1* companies made up about 8% in Korea in 1997. Analyzing the ratings between 1991 and 1997 of 40 companies which went bankrupt during 1997-98, there were almost no changes in the ratings during the period and no difference between the two agencies. Even in 1997, the year of greatest financial distress, there were only two adjustments in the ratings of these firms. (Appendix Table 6)

Depositors shifted their funds to the trust departments of banks which had been invested in CPs, which in turn had been recklessly underwritten and brokered by NBFIs such as MBCs and investment and finance companies. As a result, credit appraisal, monitoring and corporate governance over corporate firms, which was a function of the financial market, shifted from the more experienced banking sector to the less experienced NBFIs and short-term securities markets. Short-term financing expanded without adequate supervision and governance, and corporate financial structures deteriorated. This was an unintended consequence of financial liberalization. It was not caused by financial liberalization itself, but rather by the unbalanced and confused implementation of liberalization in the different financial sectors.

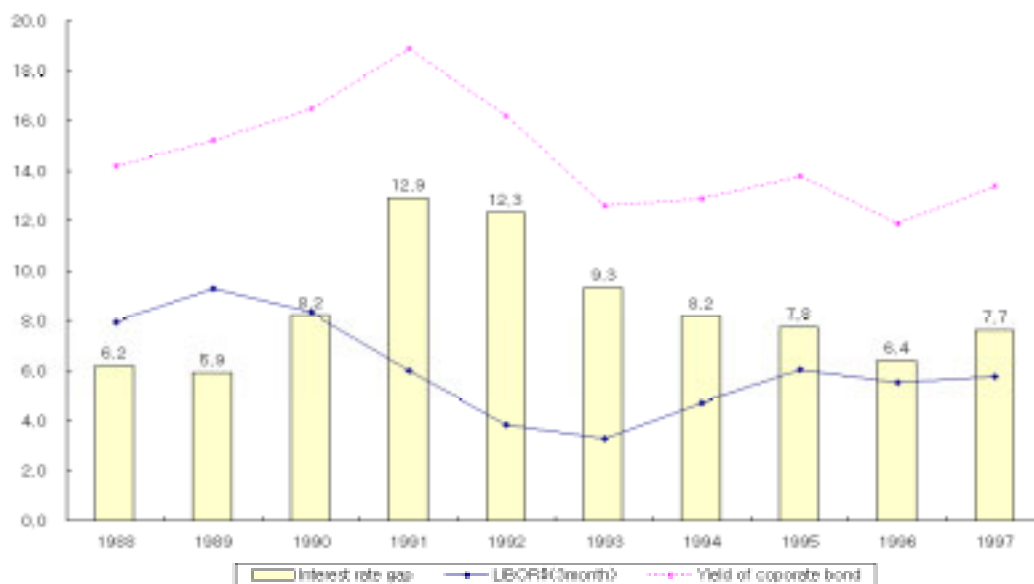
The Expansion of Consumer Loans

In addition to the growing risk of the trust accounts, a further distortion can be seen in the bank's own assets. As long-term deposit rates were gradually deregulated, the costs of deposits for banks increased. But, as mentioned above, the lending rate for corporations continued to be controlled. In response, banks sharply increased the rates for consumer loans, where interest rates were not controlled. The relaxation of the restrictions on consumer loans, which formed part of the financial liberalization plan, also facilitated this development. Loans to households and individuals increased from 7% of all loans in 1992 to 19.5% in 1996.

4.3. Capital Account Liberalization and the Expansion of Short-term Foreign Capital Inflows

Under the concern that massive capital inflows could destabilize the domestic macro-economic environment, Korea liberalized capital accounts on a gradual basis. The gap between domestic and foreign interest rates was large (Figure 1) and there was strong corporate demand for cheap foreign capital. It was only after the crisis that the Korean capital market was completely opened.

Figure 1. Interest Rate Gap between the Domestic Yield of Corporate Bonds and LIBOR



In retrospect, however, it seems that the opening of the capital market could have been done in a more prudent manner. Starting in 1993, the list of uses for which financial institutions might provide foreign currency-denominated loans was expanded. Furthermore, short-term foreign borrowings by banks were liberalized. However, in

order to help manage overall capital flows, the authorities continued to maintain quantitative controls over banks' long-term foreign borrowings. The government also maintained restrictive policies on foreign direct investment. The result was a sharp increase in foreign debts, and especially in the short-term foreign debts of financial institutions, which had been incurred to finance the strong investment demands of the corporate sector as the economy entered a boom in 1994 (Table 19).

Table 19. External Debt (1992~1997)

	(Unit: US\$ billion)					
	1992	1993	1994	1995	1996	1997 ²⁾
Total foreign obligations	62.9	67.0	88.7	119.7	157.5	154.4
<i>long-term</i>	26.0	26.7	30.3	41.0	57.5	86.0
<i>short-term</i>	37.0	40.3	58.4	78.7	100.0	68.5
Public sector	5.6	3.8	3.6	3.0	2.4	18.0
<i>long-term</i>	5.6	3.8	3.6	3.0	2.4	18.0
<i>short-term</i>	0	0	0	0	0	0
Private sector	13.7	15.6	20.0	26.1	35.6	42.3
<i>long-term</i>	6.5	7.8	9.0	10.5	13.6	17.6
<i>short-term</i>	7.2	7.8	11.0	15.6	22.0	24.7
Financial sector	43.6	47.5	65.1	90.5	119.5	94.1
<i>long-term</i>	13.9	15.0	17.7	27.5	41.5	50.3
<i>short-term</i>	29.8	32.5	47.4	63.1	78.0	43.8
Total / GNP (%)	14.0	13.3	15.1	17.3	21.8	27.3

Note: 1) World Bank standard plus the offshore borrowings and foreign branch borrowings of financial institutions.

2) At the end of the year, i.e. often the crisis.

Secondly, the barriers to entry for foreign borrowing business were relaxed, and the number of financial institutions dealing in foreign borrowing surged. Some 24 finance companies were given permission to be transformed into merchant banking corporations between 1994 and 1996, while banks opened 28 new foreign branches in the same three-year period (Table 20). The large-scale transformation of finance companies into MBCs led to a corresponding increase in the number of participants in the international financial markets, since finance companies were not allowed to deal in foreign exchange transactions.

Table 20. Number of Financial Institutions for Foreign borrowing Business

	1989	1990	1991	1992	1993	1994	1995	1996	1997
Banks	-	23	25	26	26	26	26	26	26
Merchant Banking Companies	6	6	6	6	6	15	15	30	30

These two changes in the institutional framework contributed to the strong growth in foreign currency-denominated assets in the financial sector beginning in 1994 and to the maturity mismatch problem. Of course, the adverse effects could have been obviated if an appropriate strengthening of supervisory structures had been synchronized with the changes. But reforms within the supervisory sector were gradual, or simply absent. Though banks and MBCs rapidly accumulated long-term assets in foreign currencies financed by short-term liabilities, it was not until June 1997 that the Office of Bank Supervision belatedly introduced liquidity for the liquidity ratio; while the Ministry of Finance and Economy, the supervisory authority for MBCs, had not, until the crisis erupted, established any measures to deal with the problem (Shin and Hahm, 1998).³² The only restriction imposed on the banks' foreign borrowings was a floor of 60% for the share of long-term liabilities and a ceiling on the net open foreign exchange position.

As the inexperienced MBCs made heavy short-term borrowings, competition in the foreign currency lending business on the domestic market became severe. In order to remain competitive in this business, the commercial banks lobbied hard for the authorities to lower the floor on long-term liabilities. In 1994 the ratio was reduced from 60% to 40%. As a result, not only did foreign debt increase rapidly, but starting in 1994, its structure became more oriented towards the short term (Table 19). By the end of 1996, short-term debt became 63% of total external debt. The ratio of external debt to GNP rose to 21.8% in 1996 from 14.0% in 1992; the major debt holders were financial institutions.

Foreign exchange liquidity risk grew substantially in the system, essentially because of maturity mismatches. The one-month mismatch gap and the three-month liquidity ratio both deteriorated, as shown in Tables 21 and 22³³ (Shin and Hahm, 1998). Each of the seven largest banks exceeded the standard that had been recently proposed by the Korean supervisory authority for the mismatch gap, namely 10%, and all but two exceeded 20%. Likewise, during 1997, most banks had liquidity ratios of less than 80%, well below the goal of 100% announced by the authority in 1998.

³² The weakness of prudential regulations over the MBCs' operations was not confined to the supervision of foreign currency-liquidity conditions. Even basic regulations such as minimum capital adequacy ratios were not in place. Moreover, supervision by the MOFE was extremely poor, as witnessed by the MBC frauds which came to light after the crisis (Shin and Hahm, 1998).

³³ The former is the difference between assets and liabilities due within one month, expressed as a ratio of total assets; the latter is a ratio of liquid (maturity less than three months) assets to liquid liabilities.

Table 21. Mismatch Gap Ratios of the Seven Largest Banks

(March 1997, percent)

Bank A	Bank B	Bank C	Bank D	Bank E	Bank F	Bank G	Average
21.9	27.5	22.4	23.3	20.2	16.8	11.3	20.3

Source: Shin and Hahm (1998)

Table 22. Liquidity Ratios of the Ten Largest Banks: Distribution

(Number of Banks, percent)

	1995	1996	1997.3	1997.9
80%-90%	1	3	2	2
70%-80%	2	2	1	1
60%-70%	4	2	4	5
Below 60%	3	3	3	2
Average	59.9	61.7	62.0	63.2

Source: Shin and Hahm (1998)

Thus in their foreign debt position, as in the domestic financial structure, the Korean financial system moved to the short-term in a way that made the economy increasingly vulnerable to a financial and currency crisis.

4.4. The Financial Crisis

During 1997, six of the 30 largest *chaebols* went bankrupt. The fundamental causes for this string of bankruptcies were in the distorted incentive structure of the economy, which encouraged the over expansion of corporate investment and misaligned relative prices, as seen in the excessively high real wages, overvalued exchange rates, etc. (Cho, 1997b and 1998). But financial liberalization, and the consequent development of the financial sector also contributed to weakening corporate financial structures and accelerating the financial crisis.

In this more liberalized financial market environment, the government could no longer afford to bail out large *chaebols*. This, together with the growth of nonperforming assets of Korean banks, prompted foreign creditors to review the risks of their lending to Korean banks as well as corporate firms. After the Thai crisis in July 1997, the revolving rate of Korean banks' short-term debt started to decline. Foreign creditors' confidence in the Korean economy and Korean banks fell rapidly with the outbreak of the Asian financial crisis and as the governments' policy response to the crisis was seen to be flawed.

Korea fell into a currency crisis in November 1997, and asked for assistance from the IMF. On December 3, the Korean government and the IMF agreed on a program amounting to US\$57 billion, the largest amount in the history of the IMF.

Korea's financial crisis in Korea was not caused by the collapse of a real-estate bubble, as has been the case in many other countries, but by the over-expansion of investment and the consequent insolvency of corporate firms, especially *chaebols*. There was some asset-price inflation, but both real-estate and stock markets were stable or even somewhat bearish from 1992 to 1996 (Appendix Figure 5).

The financial crisis was caused more fundamentally by a reckless investment expansion of the corporate sector and by the financial institutions' failure to check them through adequate credit analysis and monitoring. Poor corporate governance also contributed to the reckless investment. Cross subsidization among affiliated firms was not adequately regulated. Firms in *chaebols* cross-guaranteed debts of affiliated firms, and subsidized each other through internal transactions. There was a lack of credibility and transparency in accounting and auditing practices. *Chaebols* were not required to prepare and disclose consolidated balance sheets. The belief that financial institutions would never fail, and that the government would not allow large *chaebols* to go bankrupt, also meant that domestic depositors and creditors paid little attention to credit appraisals and monitoring of the investment behavior of the *chaebols*.

As the crisis unfolded, several measures were taken to try to stabilize the financial sector. First, in November 1997, (prior to the IMF program), with the aim of stabilizing the institutions' liability burden, the Government announced full guarantee for the depositors and creditors of the financial institutions.³⁴ However, as discussed above, this measure failed to reassure foreign creditors.

Second, sizable liquidity was provided to financial institutions by BOK in order to offset the withdrawal of deposits from both domestic depositors and creditors. Unlike other crisis-hit countries, support to commercial banks was provided not only in domestic currency, but also in foreign currency (about \$ 23.3 billion). At its peak, in December 1997, the stock of support—in the form of deposits and loans—amounted to 10.2 trillion won (2% of GDP).³⁵ However the speed and volume of the outflow of foreign capital, in the form of the denial by foreign creditors of revolving credit, was so fast and massive that Korea fell into a deep currency crisis, with the exchange rate going into a free fall. The currency depreciated from 965 won per dollar October 1997 to 1415 won per dollar in December 1997. The free fall of the currency did not stop until Korea reached an agreement with foreign banks in January 1998 to reschedule some \$22 billion in inter-bank deposits and short-term loans due in that year. This, in fact, marked the beginning of the stabilization of capital flows and allowed a reduction in BOK liquidity support.

³⁴ In order to minimize the moral hazard aspect in the future however, Korea explicitly announced that the blanket guarantee was a temporary measure. Also, although they did not have to make contributions to the blanket guarantee as such, financial institutions were obliged to contribute to the insurance fund administered by the Korean Deposit Insurance Corporation (KDIC). Since January 2001 the full protection system has been abolished and a limited protection scheme adopted, with a coverage limit of 50 million won per person for each financial institution.

³⁵ By April 1999, 9.2 trillion won had been repaid.

The Difference of the 1997 Crises compared to Previous Crises

As discussed in the previous chapter, the Korean economy had experienced several crises before 1997. The corporate sector's debt ratio was extremely high and the growth of the economy was heavily dependent on foreign trade. Thus, the corporate and financial sectors were vulnerable to external shock. Under these circumstances, high economic growth was sustained by a system built on a government-banks-industry nexus. However, in this system, the economy inevitably faced deep corporate and financial crises from time to time due to external shocks. The major ones were the crisis in the early 1970s and that in the early 1980s, which were caused by excessive credit and investment expansions followed by a global recession or massive trade shocks.

In each crisis, non-performing loans piled up in the banks, and corporate firms as well as banks faced severe difficulty in securing additional foreign borrowing to fill the expanding current account deficit. Unlike Japan and Taiwan, Korea ran chronic current account deficits in the course of its rapid economic growth, with the exception of a few years. But the foreign financing gaps were filled in by the government's hard efforts to secure bilateral support from Japan and the US, and multilateral assistance from the IMF/World Bank/ADB. This was possible because, first, the magnitude of the financing gap was not so large, as the size of the Korean economy remained small, and it was basically a current account crisis; and second, the composition of foreign debt such that the share of short-term debt in total debt was relatively small. For instance, comparing 1980 and 1996, the short-term debt was 34% of total foreign debt and 142% of foreign exchange reserves at the end of 1980, while it was 57% of total foreign debt and 281% of foreign reserve at the end of 1996 (see table 23).

Table 23. Foreign Debt Structure 1980-1996

Unit : billion U.S dollars

Year	Total Debt	Long Term (%) (A)	Short Term (%) (B)	Foreign Reserve (C)	(B)/(C) (%)
1980	27170	17794(65.5%)	9376(34.5%)	6571.4	142.7
1981	32433	22206(68.5%)	10227(31.5%)	6891	148.4
1982	37083	24656(66.5%)	12427(33.5%)	6983.7	177.9
1983	40378	28263(70.0%)	12115(30.0%)	6909.7	175.3
1984	43053	31628(73.5%)	11425(26.5%)	7649.6	149.3
1985	46762	36030(77.0%)	10732(23.0%)	7748.6	138.5
1986	44510	35254(73.9%)	9256(26.1%)	7955.2	116.4
1987	35568	26277(68.6%)	9291(31.4%)	9192.9	101.1
1988	31150	21370(73.9%)	9780(26.1%)	12378.3	79.0
1989	29371	18423(68.6%)	10948(31.4%)	15245.2	71.8
1990	31699	17358(62.7%)	14341(37.3%)	14822.4	96.8
1991	39135	21898(54.8%)	17237(45.2%)	13733	125.5
1992	42819	24308(56.0%)	18511(44.0%)	17153.9	107.9
1993	43870	24705(56.3%)	19165(43.7%)	20262.4	94.6
1994	97440	43500(44.7%)	53930(55.3%)	25672.7	210.1
1995	127440	55600(43.6%)	71890(56.4%)	32712	219.8
1996	163490	70170(42.9%)	93320(57.1%)	33236	280.8

Source: Bank of Korea

In the previous crises, the domestic corporate and financial sector problems had been dealt with through a direct reduction of the debt service burden of corporate firms by cutting interest rates and rescheduling short-term loans to long-term ones with favorable terms. The resulting costs to the commercial banks were supported by central bank loans to these commercial banks at special low rates. In this way the loss was shared by the depositors, banks, and the general public through higher inflation. The fiscal support for non-performing bank assets was neither explicit nor massive. Implicit forbearance was granted on loan classifications and capital adequacy ratios. With the ensuing rapid economic growth, the economy was able to grow out of the severe NPL problems, although it never dealt with the problems fundamentally.

However, 1997 crisis was different. Its magnitude was too large, and the development of the crisis too sudden, to be dealt with by traditional measures. It was basically a capital account crisis combined with a deep corporate and financial crisis. In the face of the excessive amount of short-term foreign debt and the herd behavior of the foreign creditors, affected by the crises in neighboring countries, the Korean authorities were helpless. Within two months, the outflow of foreign capital amounted to more than US\$10 billion, 15% of total short-term foreign debt, 7.5% of annual exports, and nearly 3% of GDP. With foreign exchange reserves equivalent to only about three months of import, a level accepted as reasonable by the international community, the crisis could not be cushioned.

Another difference was in the international political environment. The collapse of the Cold War system in the early 1990s made the Korean economic crisis less of a security problem than it had been under the Cold War security system. This made it more difficult to secure bilateral support to avoid the debt crisis, especially from the US and from Japan, which Korea had relied on in the previous crises.

The free fall of exchange rate and the sharply rising interest rates which accompanied the start of the IMF program aggravated the corporate sector's financial problems through massive balance sheet effects. This magnified the financial crisis. In 1997, Korea was a much more open economy and a member of the OECD. Because of the enormous pressure of the foreign creditors/investors and the IMF/US-government, it could no longer deal with the problem with the previous 'growing-up' strategy. The approach to dealing with the crisis became very different, partly because the nature of the crisis was somewhat different, but more importantly, because the Korean economy was caught so abruptly that the government almost completely lost its bargaining force in designing the approach to deal with the problems. The changed international environment and the relatively higher status of the Korean economy, under these circumstances, put enormous pressure on the authorities to abstain from the traditional approach and to adopt global standards and a Washington-style of restructuring.

4.5. Political Economy of Financial Liberalization and Crisis in Korea

The Korean government had long understood the adverse impacts of financial repression, and had attempted financial liberalization starting in the early 1980s. But the actual progress of financial liberalization stagnated for several reasons. First, the high debt ratio of the corporate sector, reaching above 300-400 percent for most large firms, made them highly vulnerable to external shocks and required continued government intervention in the credit market. In the absence of any substantial reduction in the

corporate debt ratio, full financial liberalization could easily prompt severe financial instability during the economic downturns, and the Korean economy had experienced this several times previously. Second, the government still wanted to use the banking system as a vehicle for achieving its economic policy goals, such as industrial policies and the prevention of massive bankruptcies of large firms during economic downturns. Restrictions on interest rates and intervention in credit allocation were imposed for this purpose. Third, government officials did not have much confidence in market forces for assessing risks and allocating losses. Since the financial market had been controlled by a web of explicit and implicit administrative guidance, they tended to believe that the withdrawal of this guidance would lead to instability in the market. Fourth, *chaebols* had become dominant in the Korean economy by the 1980s. They had acquired substantial control over the financial system through the ownership of most of the significant nonbanking financial institutions (NBFIs). Many worried that financial liberalization would result in enhancing the dominance of the *chaebols* in the financial market and simply shift the power of the Korean economy from the government to the *chaebols*. Thus, the government, in spite of its appreciation of the positive aspects of financial liberalization, remained unconvinced of the net benefits. In addition, it was reluctant to surrender the power of controlling the market.

However, pressure for financial liberalization was mounting both internally and externally. The continuing inefficiency of the domestic financial sector and the global trend toward financial liberalization and opening, eventually led the bureaucrats to yield to the pressure. But this reluctant financial liberalization lacked clear vision and careful strategy, and was driven by the push and pull of domestic political and foreign pressures, liberalizing areas first where pressure was strongest.

The barriers to entry and restrictions on business areas available to financial institutions were greatly reduced under the ‘deregulation drive’ of the Kim Young-Sam administration beginning in 1993. In some cases, however, financial deregulation was pursued blindly, eliminating asset restrictions and reducing the reporting requirements of the banks and NBFIs to supervisory bodies, which had been introduced for prudential purposes.

Entry barriers were also relaxed under the pressure from the *chaebols* and foreign governments. *Chaebols* lobbied strongly for a relaxation of entry restrictions, and consequently, they increased their control over the NBFIs.³⁶ Foreign governments also put strong pressure on the government to allow the entry of their financial institutions into the insurance, securities, and banking business. Once *chaebols* had expanded their control over the NBFIs, they lobbied for the dismantling of the business restriction on the NBFIs, permitting them to offer a broader range of financial services. From early on, the NBFIs were less restricted in their interest rates and asset management than banks, were free from directed credit programs, and interest rate ceilings were applied more loosely than toward the banks. Taking advantage of this regulatory asymmetry, they had grown faster than the banking sector since the 1980s.

When the government initiated financial liberalization in the early 1990s, the pace should have been faster for the banking sector in order to give it a level playing the banking sector in order to give at a level playing field, since it had been the more heavily repressed sector. But the actual implementation was the reverse, as was discussed above.

³⁶ The restriction on the chaebol’s control of banks was maintained, however.

Later, the banks came to face stiff competition from the NBFIs in what used to be their unique business areas, and complained to the authorities, asking them to relax their business boundaries as well. The authorities responded by deregulating restrictions on the trust account business of the banks further, rather than deregulating the banking business itself, to sustain their profitability in a way that would allow them to hold more short-term bills, intensifying the maturity mismatch.³⁷

Political democratization since the late 1980s changed the environment of policy making and implementation. The authoritarian government, backed by the military, was able to carry out economic policies reasonably independently from daily political pressures. But under the democratized political system this was no longer possible. The government, under this new environment, failed to deliver timely economic reforms in the face of resistance from various interest groups. The real sector reforms, which should have preceded or at least accompanied the financial liberalization, were absent in this environment. The attempts to reform the labor market and corporate governance structure were thwarted by strong resistance from the labor unions and *chaebols*. The *chaebols* and labor unions became the two most powerful interest groups in the politically democratized Korean economy. *Chaebols*, through their influence over the public media and strong political lobbying, frustrated all government attempts to introduce new rules that ran against their interests. Financial deregulation faced relatively little resistance, however, except from the bureaucrats, and consequently progressed more rapidly than reforms in the real sector. The financial liberalization that was carried out reluctantly by the bureaucrats under these circumstances lacked a clear vision and principle, and was driven by the pushes and pull of domestic and external pressures.

The pace of financial liberalization accelerated from 1993, but little attention was paid to enhancing the supervisory role of the government and establishing adequate financial market infrastructure. As mentioned above, the government's regulations for prudential purposes were also reduced in the midst of the 'deregulation drive.' Most domestic observers, including public opinion leaders, could not differentiate between prudential regulation and economic regulations, and thereby welcomed whatever deregulation was implemented. Another factor that interrupted the strengthening of supervision was the fragmentation of the supervisory authorities and the lack of effective coordination among them.

Another factor behind the poorly phased liberalization approach was the role of MOF (MOFE since 1995³⁸). Since MOFE was responsible for both monetary control and overall macroeconomic performance including growth, it often had to make compromises between the two conflicting goals. The Korean authorities had targeted M2 for monetary

³⁷ Korean banks had been involved in the trust business since the early 1980s; this was in practice equivalent to the securities investment and trust business. As the banks were losing their market shares in the 1980s and suffering from low profitability due to heavy government regulations, they were given permission to engage in the trust business to increase their profitability. The loans from the trust accounts were allowed to be at higher interest rates than those from the banking accounts even though they were essentially the same and from the same bank.

³⁸ MOFE was established at the end of 1994 through a merger of the former Economic Planning Board and the Ministry of Finance. In Korea the EPB was a senior ministry, and responsible for the coordination of economic policy and deciding the direction of macroeconomic policy. After the merger, MOFE became extremely powerful, since all policy measures were available to it including the budget, tax, monetary and financial policies, coordination of domestic and international economic policies among the involved ministries, etc. MOFE was responsible for overall economic management and performance.

control since the late 1970s. Every year, a target for M2 was announced by the government, and the monetary authorities were supposed to follow it closely. The Minister of Finance was the chairman of the Monetary Policy Board of BOK, and the Governor of BOK was the Vice Chairman of the Board until March of 1998. Thus, the ultimate responsibility for monetary policy was with MOF and not BOK. When it became difficult to maintain the M2 target in 1993 as the amount of time deposit had increased rapidly, the government completely liberalized the CP market. It wanted to boost the economy, but at the same, it had to maintain the M2 target. As a way of circumventing this dilemma, the authorities further deregulated the CPs market,³⁹ since the CP is not included in M2. The banks usually had to draw up detailed project plans when they lent to industrial firms. But the underwriters of CPs (the short-term financial companies or merchant banking companies) did not pay much attention to this as long as they received the necessary rating from the credit rating agencies. This made corporate borrowers happy because they could more easily finance their projects without strict creditor monitoring.

The financial liberalization weakened the government-chaebol-bank coinsurance scheme. But the *chaebols'* control over the NBFIs expanded. This strengthened the internal capital market of the *chaebols*, and further weakened the role of financial institutions in corporate governance.

5. Financial Restructuring after the Crisis

After the 1997 crisis, the Korean financial sector went through a drastic and comprehensive restructuring. This restructuring is not complete yet. But, compared to what was done in other countries which faced similar crises, Korea perhaps has carried out the most comprehensive and far-reaching financial restructuring. Owing to various measures taken during the last four years, the soundness, efficiency, and profitability of the financial institutions have been substantially improved.

But the financial sector restructuring also raised questions on issues such as the role of the financial sector in supporting long-term and risky investments by industrial firms while banks become more autonomous and favor loans to consumers and households. Financial restructuring led the depositors and investors to reassess the risk of different financial assets. Before the restructuring, all deposit and investments whether at banks or NBFIs were perceived risk free since there were few failures of these institutions. However, as the investors began to perceive real risk associated with NBFIs' financial products as a consequence of massive failures of the NBFIs after the crisis, they began to shift their savings to safe bank deposits. This resulted in the regaining of the banks' share and contraction of NBFIs' share in the financial market.

Banks, on the other hand, began to shift their portfolio towards safe assets such as government securities and loans to households while avoiding loans to corporate firms. To some extent, this is a healthy adjustment of banks' portfolio from the previous one that had been heavily concentrated on corporate lending due to the government industrial policies. But this also raised the issue of deepening the securities market and the related

³⁹ They also deregulated bank trust accounts so that these accounts could purchase CPs. Bank trust accounts are also not included in M2.

NBFIs such collective investment vehicles in order to sustain industrial investments and long term growth potential of the economy.

Financial restructuring experience of Korea also revived an old question on the pace and sequencing of economic reforms. The introduction of the global standards overnight in an economy where the accounting and supervisory practices were very behind, pushed the long accumulated (but veiled) NPLs out of the surface in a pace which the political economy of the country could readily accommodate. A consequence was granting forbearance or benignly neglecting the application of the already introduced rules. This undermined the credibility of reform program. The simultaneous restructuring of financial and corporate sectors also turned out difficult. Weak financial institutions could not effectively drive the corporate restructuring.

This chapter briefly reviews what has been done to strengthen the financial sector in Korea, including the incentive structure, governance, and regulatory norms, after the crisis. It also attempts to assess the impact of these reforms on the soundness, profitability, ownership of financial institutions, and the financial market structure and corporate finance. It then draws some lessons from the Korea's experience.

5.1. Measures Taken

The program to restructure the financial sector in Korea has been undertaken in two rounds so far. The first round was intended to address the immediate instability of the financial sector. The two pillars of the first stage were the closing/resolution of troubled financial institutions and the disposal of their non-performing loans (NPLs). 64 trillion won of public funds were mobilized with the approval of the National Assembly in early 1998 for this purpose. However, with the bankruptcy of Daewoo in mid-1999 and the deterioration in the financial conditions of other large firms, banks' solvency positions were eroded once more.

A second round of financial sector restructuring was thus initiated around the end of 2000, when another 40 trillion won were mobilized with the approval of the National Assembly. The collapse of Daewoo also brought to the forefront the weaknesses of the non-bank financial institutions. Indeed, the way in which financial restructuring was approached can be seen, ex-post, to have heavily affected macroeconomic developments as well as the progress in corporate restructuring since the crisis.

The financial sector restructuring plan initially focused on the commercial and merchant banks, both because the onset of the crisis began with the run of foreign creditors on their loans to these institutions and also because the depth and scope of the financial sector problems were initially underestimated. However, the problems were equally, if not more, serious in the case of other non-bank institutions such as investment trust corporations (ITCs), mutual savings and insurance companies. Since these institutions had been benignly neglected by the regulatory and supervisory authorities, they took advantage of the lack of regulatory oversight and expanded rapidly—lending to weak corporate firms, and in the process, weakened their own financial positions further. With the collapse of Daewoo in mid-1999 and the distress of some other large *chaebols*, the ITCs and other non-bank financial institutions became deeply troubled.

A number of financial institutions have been affected through mergers, revocations of licenses, and liquidation in the efforts of financial restructuring. As a

result, the number of financial institutions has been substantially reduced—from 2,101 at the end of 1997 to 1,561 at the end of 2001.

Table 24. Consolidation of Troubled Financial Institutions

Jun.2001

Types of Institutions	Financial Restructuring							
	Institution	License	Merger	Dissolution	Total	Percent	New	Institutions
	end of 97	Revoked				%	established	at Jun.2001
Banks ¹⁾	36	5	6	-	11	33.3	-	25
NBFIs	2,068	116	142	321	579	28	50	1,539
Merchant Banks	30	22	5	-	27	90	1	4
Securities Companies	36	5	1	1	7	19.4	16	45
Insurance Companies	50	5	6	4	15	30	3	38
Investment and Trust Companies	30	6	1	-	7	23.3	6	29
Mutual Sav. & Finance Companies	231	67	26	25	118	51.1	12	125
Credit Unions	1666	2	102	291	395	23.7	9	1280
Leasing Companies	25	9	1	-	10	40	3	18
Total	2,101	121	148	321	590	28.1	50	1564

Source: MOFE, 2001.8

Note : 1) This includes commercial banks as well as specializes banks. There were 27 commercial banks in 1997.

The approach taken with respect to key issues in financial sector restructuring is summarized in Appendix - Table 7. To support the financial restructuring, 151 trillion won of public funds have been injected as of November 2001. Of this sum, 99.4 trillion won came through the issuing of bonds, 28.8 trillion won by the recovery of injected funds, and 22.4 trillion from other sources (Table 25).⁴⁰

Table 25. Public Fund Injection

Types	1997.11-2001.10 (trillion won)					
	Equity participation	Contributions	Deposit payoff	Asset purchase	NPLs purchase	Total
Bond issued	40.7	15.1	18.9	4.2	20.5	99.4
Funds Recovered	3.3	1.1	4.3	3.7	16.4	28.8
Other public funds	14.1	-	0.5	6.3*	1.5	22.4
Total	58.1	16.2	23.7	14.2	38.4	150.6

* Purchase of Subordinated bonds

Source: MOFE

⁴⁰ Total Public funds injected as of June 2002 increased to 156 trillion won.

Recapitalization

A stated goal of the Government's recapitalization strategy, from the onset, was to encourage financial institutions to rehabilitate themselves. The main vehicle for this was to have existing shareholders call for rehabilitation plans. This also required new capital contributions from existing or new shareholders. Approval for these "self improvement" plans was a pre-requisite for banks to keep their licenses and to receive public support. The approach was, however, carried out on a case-by-case basis, and the content of individual plans depended on the circumstances and the size and significance of the institution. To facilitate foreign participation in the restructuring and recapitalization process, the government also liberalized regulations on foreign ownership. In particular, the banking law was changed so that foreign investors could acquire a controlling interest in domestic banks. In the event that there was no other choice, the government was willing to provide substantial public funds. Table 26 below shows the extent of the government's public fund injection for recapitalization and other purposes, both through direct equity injections and the purchase of subordinated debt.⁴¹

Table 26. Public Fund Injections, by Type of Financial Institutions

(1997.11-2001.10, trillion won)

Types	Equity participation	Contributions	Deposit payoffs	Asset purchases	NPL purchases	Total
Bank	33.9	13.6	-	13.2	24.2	84.9
NBFIs	-	-	-	-	-	-
Merchant Bank Company	2.7	-	15.3	-	1.6	19.6
Securities & IT(M)Cs	7.7	-	0.01	-	8.3	16
Insurance company	13.8	2.5	-	0.4	1.8	18.5
Mutual Sav & Finance Company	-	-	2	-	-	2
Credit Union	-	0.1	6.4	0.6	0.2	7.3
Sub total	24.2	2.6	23.7	1	11.9	63.4
Foreign Financial Institutions	-	-	-	-	2.3	2.3
Total	58.1	16.2	23.7	14.2	38.4	150.6

Source: MOFE

The Korea Deposit Insurance Corporation (KDIC) took the role of injecting funds for equity participation, deposit payoffs, and the purchasing of subordinated bonds, while the Korea Asset Management Companies (KAMCO) played the role of purchasing NPLs (Table 27).

⁴¹ The Government has not directly committed resources to the recapitalization of the existing merchant banks as they are small and as many are owned by chaebols. In fact, the remaining merchant banks have raised significant amounts of capital from their current owners.

Table 27. Public Fund Injections, by Source

(1997.11-2001.10 trillion won)

Types	Equity participation	Contributions	Deposit payoffs	Asset purchases	NPLs purchases	Total
KDIC	45.4	16.2	23.7	7.9	-	93.2
KAMCO	-	-	-	-	38.4	38.4
Government	11.8	-	-	6.3	-	18.1
BOK	0.9	-	-	-	-	0.9
TOTAL	58.1	16.2	23.7	14.2	38.4	150.6

Source: MOFE

Resolution of Non-performing Assets

A key element of the financial sector restructuring strategy was the removal of distressed assets into a centralized asset management company. Although KAMCO had existed prior to the crisis (it was established in 1962 to collect non-performing loans for banks), in November 1997, a new fund was created under KAMCO, supported by contributions from financial institutions and government-guaranteed bond issues. This fund was given the mandate to purchase impaired loans from all financial institutions covered by deposit guarantees. Then, in August 1998, KAMCO was reorganized with a view to strengthening its asset management and disposition capabilities, or in other words to play the role of a “bad bank.” Thus, KAMCO was reorganized along the lines of the US Resolution Trust Company to perform additional functions, including workout programs for non-performing loans. Its resolution methods are shown in Appendix Table 9. Finally, Appendix Table 10 shows cases of actual resolutions of NPLs made by KAMCO from the onset of the crisis through to 2000.

Consolidation of Troubled Financial Institutions

As a result of financial sector restructure during 1998-2001, a number of financial institutions were dissolved, merged or taken over as is summarized in table 24.

a) Commercial Banks

At the end of 1997 there were 27 commercial banks, including Korea Long Term Credit Bank, and 10 regional banks. The 27 were classified into three groups: those with BIS ratios below 8 (12); those with BIS ratios above 8; and (13) Korea First Bank and Seoul Bank, which had run into trouble even before the eruption of the crisis, and had been nationalized before the banking sector restructuring framework was in place.

Five of the 12 banks with BIS capital adequacy ratios below 8 percent (as of the end of 1997) were acquired by other banks through purchase and assumption (P&A) transactions in June 1998. The rehabilitation plans of seven banks were conditionally approved. Among them, Commercial Bank of Korea and Hanil Bank merged to become Hanvit Bank; Cho Hung Bank also merged with Kangwon Bank and Hyundai Merchant Bank and has become CHB. The FSC approved the rehabilitation plans of 13 banks whose BIS capital ratios exceeded 8 percent at the end of 1997. Among them, Boram

Bank merged with Hana Bank—in the first merger between two viable institutions. Also Kookmin Bank merged with Korea Long-term Credit Bank. Korea First Bank was sold to a foreign investor (New Bridge Capital consortium) at the end of 1998.

In November 2000, 8 banks were again subjected to Prompt Corrective Action (PCA) due to their failure to meet the BIS capital ratio of 8 percent. They all submitted rehabilitation plans to the FSC, which were subject to a review by a committee consisting of private sector specialists. Based on the review, the rehabilitation plans of 2 of them, CHB and Korea Exchange Bank, were accepted but the others were rejected. Accordingly, the Government injected capital into these six banks and merged them into a new financial holding company (Woori Financial Holding Company) in April 2001. Meanwhile, in November 2001, two sound banks Kookmin and Housing merged to become the largest bank in Korea (Kookmin Bank). Foreign investors (Carlyle Group consortium) took over another bank, Koram Bank, in January 2001. As result, currently only 16 commercial banks remain (Table 28).

Table 28. Commercial Bank Consolidation in Korea

	1993	1995	1997	1999	2000	2001.6
Number of Commercial Banks	24	25	26	17	17	17 (-34.6) ²⁾
Number of Branches	3,317	4,557	5,987	4,780	4,709	4,680 (-21.8)
Number of Employees (1,000s)	87.7	103.2	113.9	74.7	70.6	69.5 (-39.0)
Total Bank Assets (trillions) ¹⁾	232.9	395.6	606.6	562.3	582.6	604.7 (-0.01)
Deposit per branch (billions)	-	-	42.5	60.2	86.8	-

Note: 1) End of period, including trust accounts.

2) Numbers in the parenthesis in the last column denote growth rates relative to 1997.

Source: Bank Management Statistics, 2001, Financial Supervisory Service.

b) Merchant Banks

Following a string of bankruptcies of *chaebols* in 1997, merchant banks—which had been engaged in a wide range of business activities, including limited deposit and credit, trust, securities, international financing, and leasing—found themselves saddled with large amount of NPLs. Each major corporate bankruptcy further eroded the international financial institutions' confidence in merchant banks, exacerbating the banks' borrowing difficulties at home and abroad. The government finally suspended 14 insolvent banks on December 1997. After that, 18 merchant banks had their licenses revoked and the assets and liabilities of all of them were transferred to a bridge bank. Four merchant banks were merged, and four became subsidiaries of the KDIC. As of May of 2001, only three merchant banks survived out of 33 in total before the crisis.

c) The Investment Trust Companies⁴²

Among other categories of non-bank financial institutions, the investment and trust industry was perhaps the weakest and posed the most significant systemic risk. This

⁴² See Appendix for an detailed discussions of the expansion and collapse of ITCs often the 1997 crisis.

industry consisted of investment trust companies (ITCs) and investment trust management companies (ITMCs). ITCs serve as fund managers, beneficiary certificate sellers (distributors), and investment advisors. ITMCs specialize in fund management and investment advisory services. These institutions were the main purchasers of corporate bonds in Korea. The gradual increase in bond yields since early 1999 resulted in mounting losses for them. Initially, the lack of transparency in the sector disguised the losses.

The ITC sector in Korea long suffered from several problems (see Cho, 2001). The three largest ITCs were already insolvent, and were borrowing indirectly from their trust funds for their propriety accounts (which was illegal), on which they had very large losses. Most of the bond funds were not marked-to-market and inter-fund transfers were common, given the lax supervision. The interest rate peaked in December 1997 as a response to currency crisis, but started to decline in early 1998. With declining interest rates, managers transferred higher-yielding papers to new funds in order to offer above-prevailing market rates of return to fund investors and hence attract new investment. ITCs and ITMCs held a significant proportion of the outstanding debt of the top five *chaebols*, including more than 80 percent Daewoo's domestic bonds and commercial papers. Finally, a large proportion of the industry's funding came from financial institutions attempting to take advantage of the interest rate arbitrage. The industry's problems therefore had systemic ramifications.

Following the collapse of Daewoo in July 1999, redemption pressures mounted as investor became increasingly aware of the potential losses of ITCs. The corporate bond market collapsed. In response, the government implemented a number of steps. These included temporary restrictions on redemptions to slow the withdrawal of funds from the sector, and the creation of a "Bond Market Stabilization Fund," to be funded with contributions from banks and insurance companies. It also adopted a series of measures to accelerate the restructuring of the sector, starting in November 1999. The two largest ITCs, which did not have controlling shareholders, were recapitalized. The third largest ITC, which was controlled by the Hyundai group, was asked to carry out its own recapitalization without the injection of public funds. ITCs were also instructed to clean up bad assets in their trust funds through write-offs and transfers from sales units (i.e. securities firms). This stabilized the sector by the middle of 2000. (In the meantime, investor funds flowed back from ITCs to the banking sector, and the corporate bond market did not fully recover in terms of meeting the demand for new investment financing for corporations.) In terms of resolution measures, by the end of 2001 six ITCs and ITMCs had had their licenses revoked, one had been merged, and three had been dissolved and their businesses transferred to bigger ITCs.

d) Insurance and Other NBFIs

A review of the life insurance sector revealed widespread financial stress. Korea had a large life insurance sector, consisting of 33 companies, estimated to be the sixth largest in the world in terms of premia collected. The industry was also conducting a quasi-banking business, with the average maturity of policies much shorter than is conventional in other countries, and with a large proportion of assets invested in commercial lending. A 1998 review identified 18 weak companies; they were requested to submit rehabilitation plans. Seven of these companies had negative net worths; four

small companies were closed and the remainder were merged or sold.⁴³ One large company, Korea Life, remains to be dealt with after initial attempts at finding a buyer has failed so far.

Following these initial steps, the government implemented a number of measures to strengthen the industry. The EU solvency margin standards for life insurance companies were adopted in April 1999, to be phased in over a period of five years. New loan classification and provisioning rules similar to those of commercial banks were designed and imposed effective September 2000, and investment guidelines were tightened to curtail bank-like lending activities. The terms and pricing of policies were liberalized in early 2000. Finally, the insurance business law has been amended to enact the reforms of corporate governance that apply to listed companies.

The leasing sector, which is said to be the fourth largest in the world, has also been substantially reduced in size following the restructuring measures. Most of the leasing companies were associated with commercial banks, albeit via minority stakes. The bulk have now been closed, with shareholders and creditors absorbing significant losses.

Strengthening of Regulatory Norms

The financial restructuring has involved improvements in the governance framework for banks, in prudential and regulatory norms, accounting, auditing and in disclosure practices. This has also been supported by institutional strengthening for regulation and supervision (Table 29). The specific improvements in prudential regulations—a key element of the reforms—were as following.

⁴³ In addition, two surety and guarantee insurance companies experienced major difficulties following the default of a large proportion of the corporate bonds that they had guaranteed. The two companies were taken over by the government, merged, and recapitalized as Seoul Guarantee.

Table 29. The Changed Incentives Framework for Financial Institutions

Changes to increase Investment at risk and incentives for owners/managers	Changes to increase and/or facilitate the disciplinary role of the market and depositors	Changes to improve the regulatory and supervisory framework
<ul style="list-style-type: none"> - Changes in prudential regulations (provisioning requirements) that should increase capital-at-risk for owners - Establishment of audit committees obligatory - Independent outside directors (more than 50% of directors in the case of listed firms); - Performance-based pay introduced for managers 	<ul style="list-style-type: none"> - Partial deposit guarantees introduced in Jan 2001, replacing the 100 percent guarantee extended at the time of the crisis (except for non-interest bearing deposits which are covered 100 percent until end 2003). This should increase incentives of depositors to monitor. Level of insurance set at W 50 million per depositor which covers about 40 percent of all deposits. - Improved accounting, auditing and disclosure: - Financial institutions required to produce consolidated financial reports. - New regulations requiring banks to report their financial statements more frequently. - New classification, provisioning and income recognition to improve quality of data. 	<ul style="list-style-type: none"> - Improvements in prudential regulations - Consolidated supervisory organization FSS, integrating previous Banking Supervisory Authority, Securities Supervision Board, Insurance Supervision Board and NBFIS Supervisory Authority. - Steps to ensure adequate funding to enhance FSC's operational independence and authority. - Consistent with Basle Core Principle for Effective Banking Supervision, FSC/FSB given authority to issue and revoke financial institutions' licenses . - Supervisory authority strengthened by introduction of mandatory prompt corrective action (PCA) for cases where capital adequacy falls below certain trigger points. Most important PCA indicator for banks is BIS capital adequacy ratio; for securities companies it is the operational net capital ratio; and for insurance companies it is the solvency margin ratio. - Improved evaluation of financial institutions: for commercial banks, the CAMEL (capital adequacy, asset quality, management, earnings, liquidity) system has been augmented to include sensitivity to market risks, or CAMELS. - Introduction of fit and proper test to strengthen supervisory power over new entry.

Prior to the crisis (and actually until June- 1998), the definition of non-performing loans and provisioning requirements were below international standards. A loan was considered non-performing only when it was past due 6 months or more, and provisioning requirements were inadequate: 0.5 percent for “normal”; 1 percent for “precautionary” loans; 20 percent for “substandard” 75 percent for “doubtful” and 100 percent for “ losses.” These regulations were all brought closer to international standards in June 1998 (see Tables 30 and 31).

Table 30. The Definition of Non-performing Loans

Period of overdue payment	Old	New
1-3 months	Normal	Precautionary
3-6 months	Precautionary	Substandard or doubtful
More than 6 months	Substandard or doubtful	Substandard or doubtful

Table 31. Provisioning Requirements

Classification	Old	New
Normal	0.5%	0.5%
Precautionary	1%	2%
Substandard	20%	20%
Doubtful	75%	75%
Loss	100%	100%

The FSC also introduced regulations that required provisioning for losses in securities. Moreover, there are now new guidelines (effective end-1999) designed to take into account the borrower's future capacity to repay—or forward looking criteria (FLC)—in classifying and provisioning loans. The definition of capital has also been strengthened, with regulations that prohibit the inclusion of all provisions for NPLs in Tier 2 capital.

The prudential regulation on *foreign exchange* operations by commercial banks has also been strengthened. Table 32 below summarizes the changes in the prudential regulations for commercial and merchant banks.

Table 32. Improvements in Regulatory Norms

	Commercial banks		Merchant banks	
	1996	2000	1996	2000
Limits on ownership	4%	4%	None	
Level of minimum capital adequacy requirements	BIS 8%	BIS 8%	None	BIS 8%
Loan classification requirements (number of months before loan is classified as non-performing)	6 months	3 months	None	3 months
Provisioning requirements for loans classified as non-performing	20% of substandard; 75% of doubtful; 100% of loss	20 % of substandard; 75% of doubtful; 100% of loss	None	20 % of substandard; 75% of doubtful; 100% of loss
Limits on risk exposure:				
- Liquidity requirement	None	100%	None	100%
- Foreign exchange exposure limit	o/b, o/s: 10% of capital;	-o/b, o/s: 20% of capital	Same as banks	Same as banks
- Single exposure limit	15% of capital 30% in case of loan guarantee	20% of capital, incl. on loan guarantee	50% of capital	20% of capital
- Loans to insiders	None	15% of capital	50 % of capital	15% of capital

In the NBFIs sector, the regulatory and accounting standards of merchant banks and life insurance companies were brought in line with those of commercial banks. In the investment trust business, all funds are now marked to market.

Improving the Governance Structure of Banks

There has been a major change in the governance structure of the banks since the crisis. Today, banks are required to have a majority of outside directors among board members. These outside directors are usually persons with various backgrounds, including accountants, lawyers, academics, business people, and foreign experts. The boards are supposed to have sub-committees including an audit committee and risk management committee, each of which should be chaired by outside directors. This has made the discussions in board meetings more active than before, and made the decision making process more transparent. It has also improved 'checks and balances' between the board and management of the banks in important decision making.

5.2. Impact of Financial Restructuring

The financial crisis and the subsequent restructuring brought many changes into the Korean economy and the financial sector. It changed the ways banks are operated as well as the patterns of corporate finance. As a result of the recapitalization and resolution of substantial amounts of NPLs, the profitability of financial institutions has improved. Perhaps the most significant change in the financial market has been the change in the management priority of financial institutions from asset maximization toward profitability. After seeing the failures of mismanaged banks, bank's preferences have changed from high risk / high return assets to safe assets. Financial institutions have also adopted new risk management systems, compensation systems, internal organizations, etc.

Corporate Financing Patterns

With the breakdown of the expectation of being 'too-big-to-fail,' the behavior of financial market participants has changed, and this has also affected the financing and asset allocation behavior of corporate firms and financial institutions. A set of notable changes in the pattern of corporate financing in the post-crisis restructuring period can be identified as follows:

a) Reduction in External Financing

One of the most significant change in corporate financing behavior in the post-crisis period has been the reduction in the share of external financing. As shown by Table 33, while external financing accounted for approximately 70% of total corporate financing prior to the crisis, the share decreased to close to 50% in the post-crisis period. This change seems to reflect the change in the risk attitude of the corporate sector with regard to external debt financing, as well as the shrinkage in corporate investments in the face of uncertainty in the midst of restructuring and the presence of excess capacity.

Table 33. Structure of Corporate Financing
(based upon annual flows)

	1985	1990	1995	1998	1999	2000
Total Financed	100	100	100	100	100	100
Internal Finance ¹⁾	37.1	28.2	29.2	49.7	49.4	-
External Finance	62.9	71.8	70.8	50.3	50.6	-
Total External Finance	100	100	100	100	100	100
Indirect Finance	46.7	38.3	31.8	-56.6	4.1	17.1
Banks	29.4	15.7	14.9	2.5	29.2	35.2
NBFIs	17.3	22.6	16.9	-59.1	-25.0	-18.0
Direct Finance	25.2	42.4	47.9	176.7	46.8	28.6
Stocks	10.8	14.2	17.5	52.5	82.6	35.6
Corporate Bonds	13.4	21.5	15.3	163.9	-5.3	-3.2
Government Bonds	0.7	2.9	-0.9	2.0	0.0	-2.2
Commercial Papers	0.3	3.7	16.1	-41.7	-30.4	-1.7
Foreign Borrowings	4.2	6.5	8.6	-33.7	24.1	23.7
Others ²⁾	23.9	12.8	11.7	13.6	25.0	30.6

1) Internal financing includes retained earnings, depreciation and amortization.

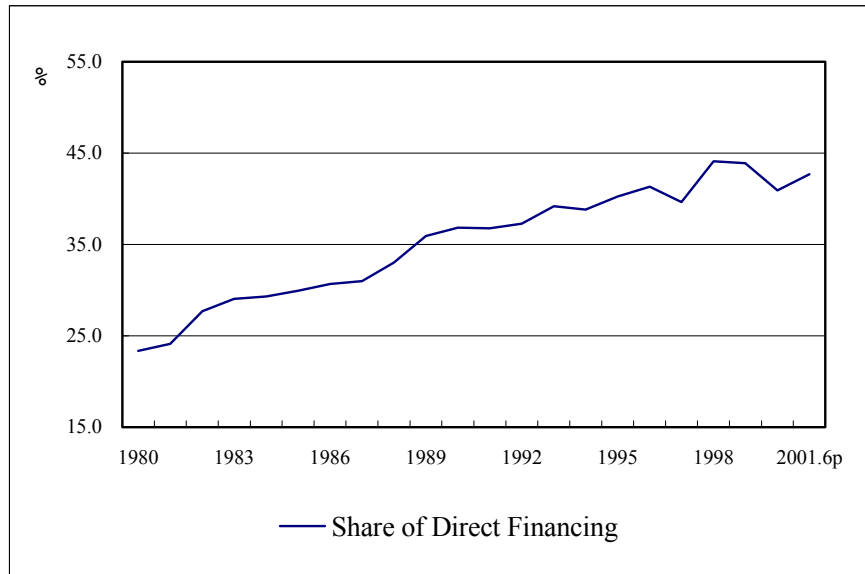
2) Others include borrowings from the government and trade credits among corporate firms.

Source: Bank of Korea, Understanding Flow of Funds in Korea, 2002.

b) Contraction in Direct Debt Financing

The post-crisis corporate financing pattern corresponds closely to the approach taken toward financial restructuring. The share of direct financing in total corporate sector liability, as shown in Figure 2, indicates that the share decreased in 1997, then increased dramatically in 1998, and then decreased again in 2000. The drastic increase in the share of direct financing in 1998 was due to the increase in the share of corporate bonds (Table 33). With the collapse of the merchant banking industry, the commercial paper market was almost paralyzed beginning in 1997 and commercial bank loans were also in net redemption as banks adjusted their portfolio structures in response to the BIS capital regulation. The sharp reduction in the share since 1999 was caused by the troubles of ITCs and the subsequent paralysis of corporate bond market (Appendix I).

Figure 2. Share of Direct Financing in Corporate Finance



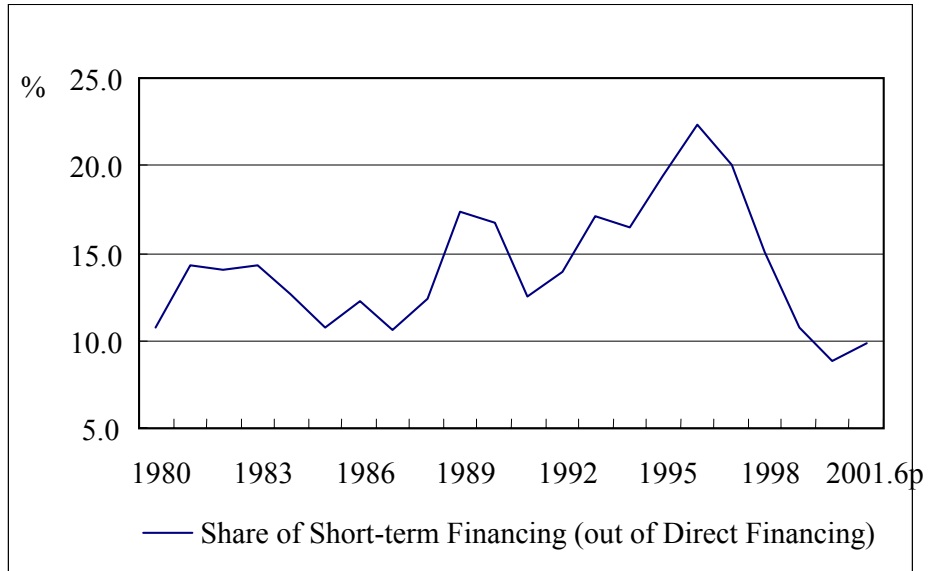
Source: Hahm (2002)

The rapid expansion of the corporate bond and commercial paper markets in the pre-crisis period reflected implicit government guarantees. While regulatory framework was loose. The breakdown of the guarantee system implies that risks should be fully priced in the financial markets, and indeed, the shrinkage in direct debt financing reflects a normal transition given the high credit risks in the restructuring period.

c) Reduction in Short-term Debt

The collapse of the merchant banking industry and commercial paper markets implied that corporate firms could not roll over their short-term debts. As firms repaid commercial papers with funds raised by issuing corporate bonds and stocks, the share of short-term debts out of total direct financing decreased sharply in the post-crisis period, as shown in Figure 3.

Figure 3. Share of Short-term Financing in Direct Financing

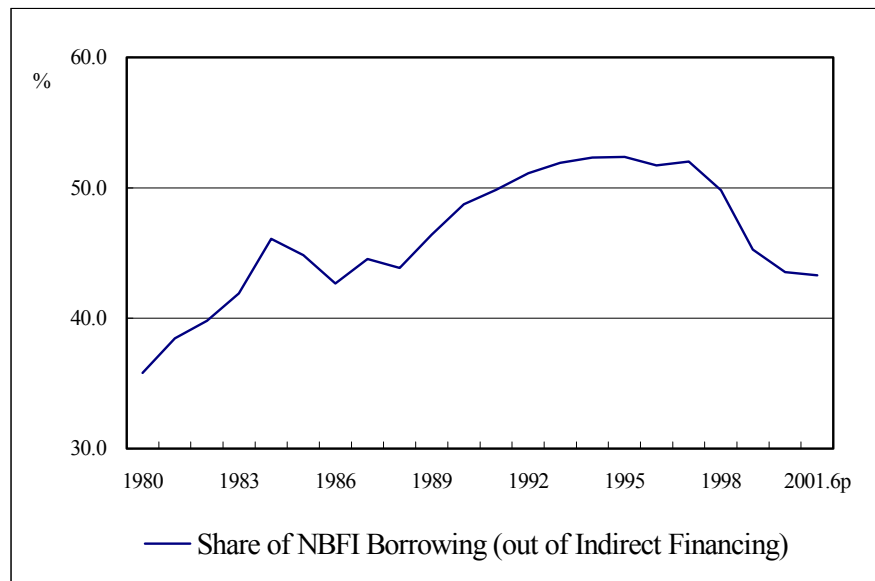


Source: Hahm (2002)

d) The Fall of the NBFIs and the Re-emergence of Commercial Banks in Indirect Financing

In the process of post-crisis restructuring, commercial banks regained their share in financial intermediation. As depositors and investors began to perceive the risks associated with NBFIs financial products, and with advances in the resolution of insolvent NBFIs, the share of NBFIs, which was over 50% during the 90s, fell sharply in the post-crisis period, as shown in Figure 4. The depositors' preference for safety also contributed to the recovery of the share of commercial bank, as banks began to improve their capital adequacy through the government aided recapitalization program. Again, the unusual expansion of the NBFIs during the 90s partially reflects the presence of implicit guarantees, and hence, the later trend can also be understood as a transition toward the normalization of financial intermediation.

Figure 4. The Reduced Role of NBFIs



Source: Hahm (2002)

Changes in Bank's Portfolio Structure

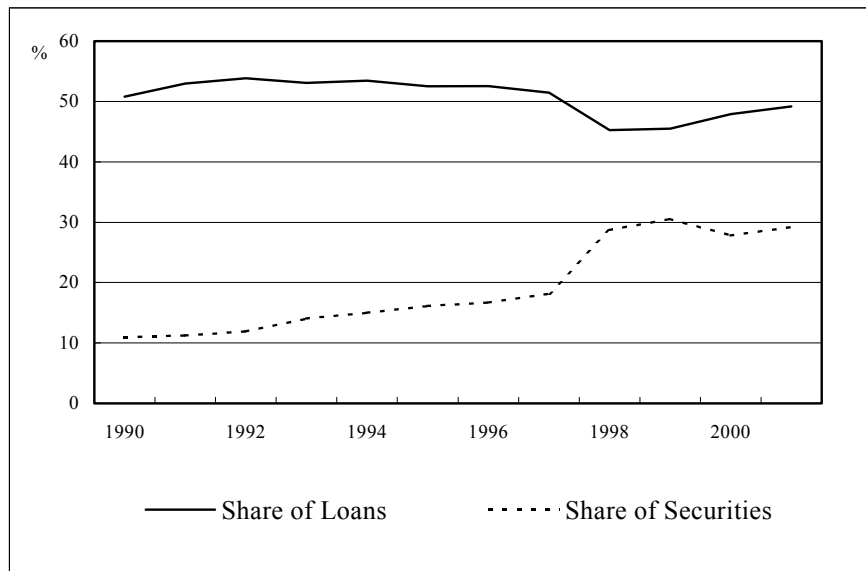
The financial restructuring also gave rise to significant changes in the asset allocation behavior of financial institutions. In some respects, the changes have been temporary responses to rising uncertainty in the course of the financial restructuring. However, they also reflect a fundamental and structural shift as the paradigm of competition and survival has changed. Table 34 shows the trend in the composition of commercial bank domestic assets.

Table 34. Composition of Commercial Bank Domestic Assets

	(%)						
	1990	1993	1996	1998	1999	2000	2001.8
Cash and due from banks	25.19	17.12	14.89	9.44	9.32	9.17	7.88
Securities	10.95	14.04	16.69	28.69	30.55	27.78	29.20
Loans and discounts	50.82	53.08	52.57	45.25	45.50	47.91	49.20
Fixed assets and others	13.04	15.79	16.23	17.20	16.02	17.10	15.79
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Bank of Korea, Monthly Bulletin, respective issues.

Figure 5. Share of Securities and Loans in Banks' Domestic Assets



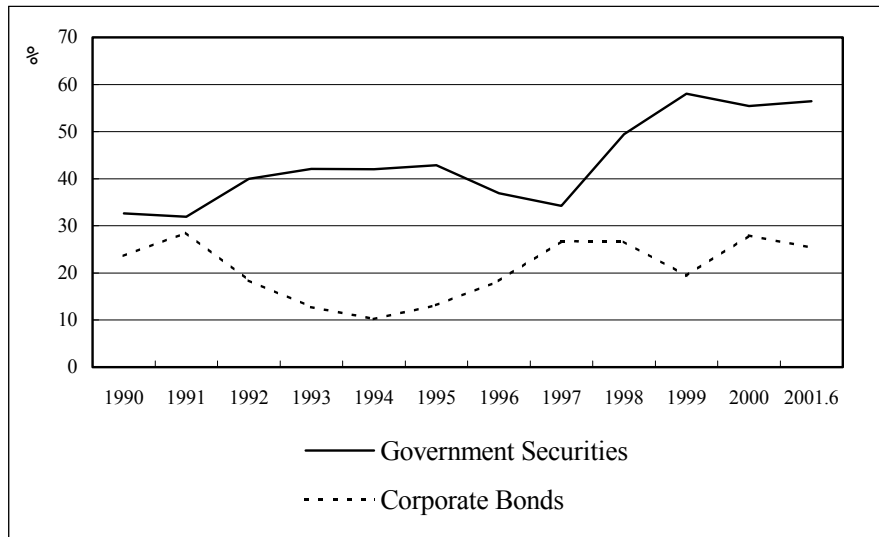
Source: Hahm (2002)

a) Increase in the Share of Securities and Decrease in the Share of Loans

One notable change in the portfolio structure of commercial banks has been a sharp rise in the share of securities. As shown in Figure 5, the share of securities in bank balance sheets has shown a slowly increasing trend from early 90s, following government policies to foster capital markets. However, the increase in the share of securities accelerated in the post 1997 period, reflecting commercial banks' preference for safer and more liquid assets. Government securities account for most of the increase in the securities holding of commercial banks. Figure 6 shows the share of government securities and corporate bonds in total securities held by commercial banks. While the share of government securities increased sharply in 1998 and 1999, the share of corporate bonds fluctuated at a level below 30%. Three factors seem to account for the increase in the share of government securities (Hahm, 2002). First, as noted above, banks came to prefer safer assets in the face of uncertainty, and converted private credits into government securities to prop up their BIS capital ratios. Second, government securities markets began to develop in the resolution process as the government incurred fiscal deficits. The emergence of government bond markets and the adoption of the marking-to-market valuation system in July 2000 contributed to the development of active and liquid fixed income markets, which also increased the holdings of government securities by banks. Third, in the recapitalization process, commercial banks that were subject to government intervention received bonds issued by the KDIC, which also raised the share of government and public securities in the banks' portfolios. It also reflects holdings of investment securities related to corporate restructuring, such as stocks and convertible bonds obtained in debt-equity swaps. The share of loans dropped substantially in 1998 and remained low in 1999 as commercial banks tried to reduce their

exposure to credit risks by refusing to refinance existing loans. As the economy slowly recovered, the loan share began to rise gradually starting in 2000.

Figure 6. Share of Government Securities and Corporate Bonds in Total Securities Holding

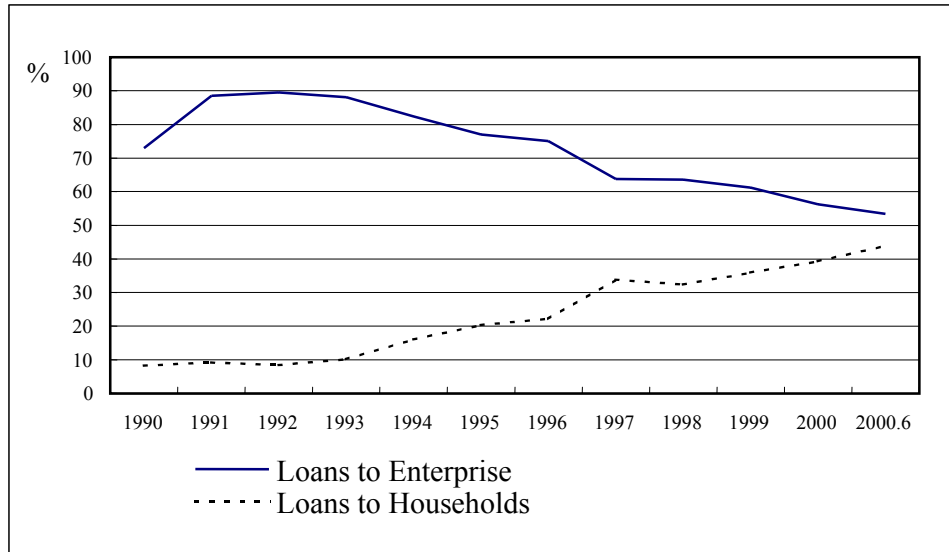


Source: Hahm, 2002

b) Drastic Increase in the Share of Consumer Loans and Decrease in Corporate Loans

While the share of loans in total commercial bank assets seems to have slowly recovered its pre-crisis level, there has been a fundamental change in the composition of loans. As can be seen in Figure 7, the share of loans to enterprises has shown a decreasing trend from 1992, which was further accelerated in 1997. On the contrary, the share of loans to households approximately doubled from 20% in 1996 to 40% in 2000. This has further increased in 2001. This trend seems to reflect at least three factors. First, there was reduction in demand for loans by corporate firms as they became more cautious of their investment expansion. Second, corporate firms with good credit risks found direct financing less costly, and gradually left the bank loan market. Third, there was a change in the risk appetite of the commercial banks themselves. As banks began to recognize the importance of credit risk management, they tried to reduce their loan concentrations by introducing exposure limits on corporate loans. In their place, commercial banks increasingly emphasized consumer loans as a new source of profit, as they can be managed as a well-diversified portfolio of numerous small-sized loans, and hence, imply lower expected losses and credit risks compared to corporate loan portfolios.

Figure 7. Share of Corporate vs. Consumer Loans in Total Loans

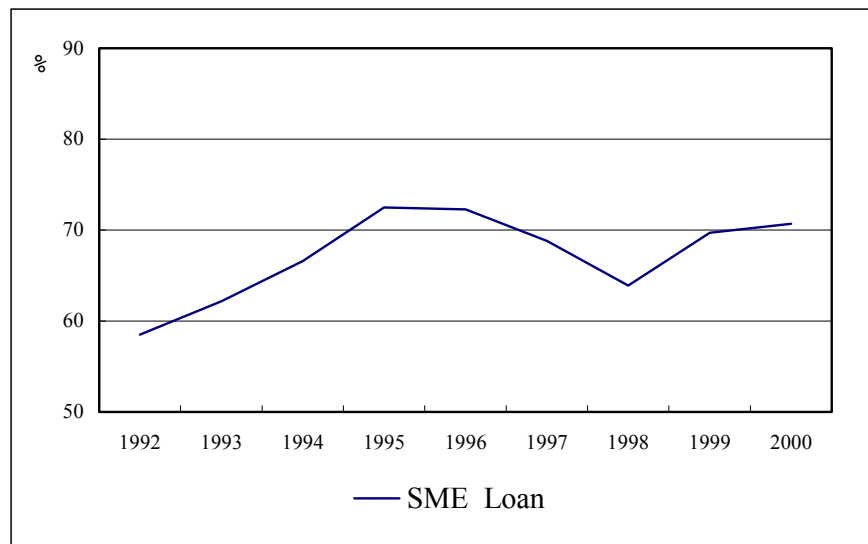


Source: Hahm (2002)

c) Increased Share of SME Loans

As can be seen in Figure 8, the share of loans to SMEs increased rapidly during the 92-95 period. This increasing trend reflected the shift in the government's policy priorities, as discussed above as well as the fact that the *chaebols* increasingly used NBFIs and direct financing as alternative financing sources. This trend was reversed in 1997 and 98, when commercial banks faced capital constraints and SMEs suffered from a severe credit crunch. The share of SME loans recovered in 1999 and slowly increased in 2000 as commercial banks began to emphasize SME loans as another source of profit. The recent increasing trend for SME loans has not been driven by the government but rather by voluntary changes in bank business strategies, as banks can charge differential interest rates across borrowers, depending upon respective credit risks (Hahm, 2002).

Figure 8. Share of SME Loans in Total Corporate Loans



Source: Hahm (2002)

The Capital Adequacy and Profitability of Banks

As a result of the restructuring, both the capital adequacy and profitability of commercial banks have substantially improved. Table 35 shows the major financial indicators of commercial banks in Korea. The BIS capital ratio has increased to a level above 10% since 1999, and the share of non-performing loans (NPL) classified as substandard or below has fallen sharply to the 5% level from 13.6% in 1999. The improvement in the bank's balance sheets and asset qualities is an outcome of the resolution of massive bad loans. If we recognize that the asset classification criteria have been significantly strengthened during the restructuring period, the rapid fall of NPL ratios since 1999 implies that a substantial amount of bad loans has been resolved during the last three years. The non-performing loan ratio (substandard or below) of commercial banks further dropped to 3.3% at the end of 2001 (Hahm, 2002).

Table 35. Financial Indicators of Commercial Banks

	1994	1995	1996	1997	1998	1999	2000	2001.9
BIS Capital Ratio ¹⁾	10.6	9.3	9.1	7.0	8.2	10.8	10.8	10.7
NPL Ratio ^{1) 2)}	5.8	5.2	4.1	6.0	7.4	13.6	8.8	5.1
ROA ³⁾	0.4	0.3	0.3	-0.9	-3.3	-1.3	-0.6	0.7
ROE ³⁾	6.1	4.2	3.8	-14.2	-52.5	-23.1	-11.9	14.1

Notes: 1) End of period.

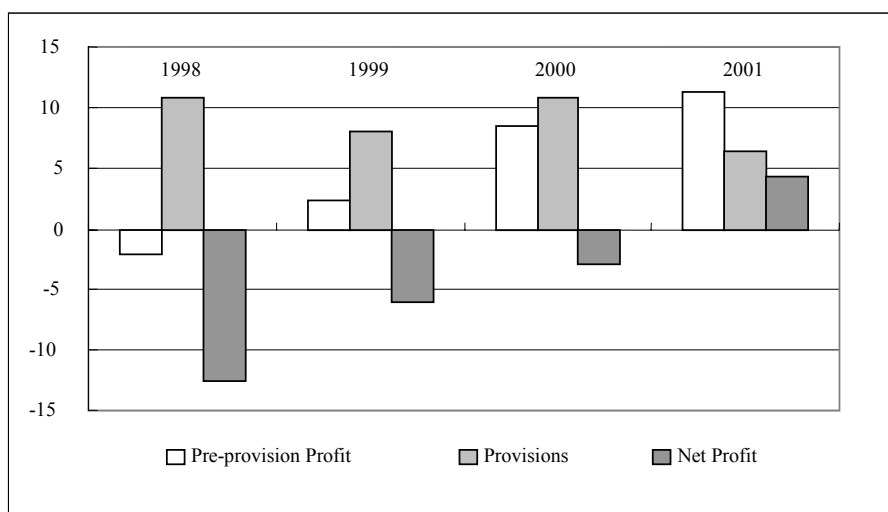
2) Ratio of assets classified as substandard or below.

3) During the period, including trust accounts.

Source: Bank Management Statistics, Financial Supervisory Service

Figure 9 shows the pre-provision profit, provisions, and net profit of commercial banks in the post-crisis period. The total amount of provisions accumulated during the 1998 to 2001 period was 35.6 trillion won while the pre-provision profits accumulated during the same period were only 20 trillion won. With continuing NPL efforts to resolve NPLs and an improving bank operation environment, the pre-provision profit began to exceed the amount of provision in 2001 and commercial banks began to record positive profits.

Figure 9. Pre-provision Profit, Provision and Net Profit of Commercial Banks



Source: Hahm (2002)

However, the bank profitability structure is not robust yet. Relatively low loan-deposit spread and high provision rate have traditionally been main causes of low profitability for Korean banks. The consolidation in the banking sector significantly lowered operating costs, and the provision requirements also fell sharply in 2001. However, there seems to be little room for further improvement in the cost efficiency and loan-deposit spread, and therefore, it seems that further increases in bank profitability will be limited unless banks successfully restructure their business portfolios. The traditional loan-deposit business has become increasingly competitive as depositors become more interest rate sensitive. It is getting more difficult to retain good credit borrowers who have access to diverse direct financing

Weak corporations still present potential risks to the health of bank balance sheet. The debt servicing ability of the corporate sector is still weak, although it is improving. According to an estimate of the BOK, the percentage of manufacturing firms whose interest coverage is less than one was 29% in 2000.⁴⁴ Banks have accumulated a

⁴⁴ The BOK (2001) investigated cash-flow of manufacturing firms that are subject to external audits and found that, in the fiscal year 2000, the average interest coverage ratio improved to 275.5% from 154.6% in 1997. However, it also found that the share of firms whose interest coverage is less than 100% was still 29.3% (27.1% in terms of borrowings from fin in October 1998).

substantial amount of provisions against credit risks according to the forward-looking criteria (FLC) adopted from January 2000. However, many of the potentially problematic firms are still classified as ‘precautionary’—an asset category just above ‘substandard’.

Ownership Structure

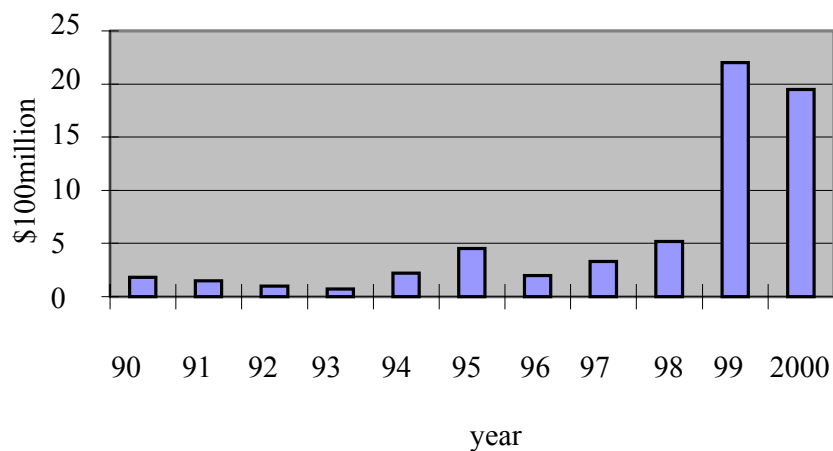
The financial restructuring after the crisis brought significant changes in the ownership structure of financial institutions in Korea. The two most significant changes were an increase of foreign ownership and an increase of government ownership.

a) Increase of Foreign Ownership

Foreigner’s access to the financial sector in Korea was completely liberalized after the crisis. Foreign banks and securities firms have been allowed to establish subsidiaries starting April 1998. (Appendix Table II-10). In addition, 100% foreign ownership of Korean financial institutions was allowed in the same month and foreign nationals were allowed to become directors of Korean banks. The establishment of a new commercial bank, whether domestic or foreign-owned, requires only the permission of the FSC.

From 1990 to 1997, foreign investment in Korea’s financial sector was only \$200 million. It reached \$500million in 98 and \$2 billion in 2000. (Figure 10)

Figure 10. Foreign Investment in Financial Institutions



Source: Samsung Economic Research Institute

The number of financial institutions in which the foreigners are the largest shareholder is 26 at the end of March, 2001. Table 36 shows the foreign participation in the ownership of major Korean banks. Currently KFB, and KorAm Bank is fully controlled by foreigners. Their share in the banking sector is about 16%. In other banks (Kookmin, Hana, KEB) foreigners participate in the board of directors(BOD)

Table 36. Foreign Investment in Commercial Banks

(Percent)

Banks	1998		1999		2000	
	Total foreign share	Major shareholder	Total foreign share	Major shareholder	Total foreign share*	Major shareholder
Housing & Commercial	44.93	Bank of Newyork (9.98)	-	ING Group (10)	65.4	Bank of New York (13.1)
Kookmin	28.64	Bank of Newyork (4.96)	-	Goldman Sachs (18)	64.5	Goldman Sachs (11.1)
KFB	0.1		-	New Bridge (51)	51	New Bridge (51)
Shinhan	19.19	CMB-Schiro CMCT PEMP (2.04)	-	Korean Japanese (49.43)*	52.1	Korean Japanese (27)
KarAm	25.71	BOA (16.83)	-	BOA (16.83)	59.5	Calyle Consotium (40.7)
KEB	34.87	CommerzBank (32.39)	-	Commerz Bank (23.6)	58.8	Commerz Bank AG (32.5)
Hana	27.7	I.F.C (6.22)	-	I.F.C (3.3)	36.2	Allianz Group (12.5)

*Total foreign share is as of Jun, 2001

Source: The Direction of Restructuring of Banking Industry, Korea Institute of Finance, The Liberalization of Banking Sector in Korea

b) Increase of Government Ownership

As a result of the capital increase of the troubled banks, many major commercial banks have been nationalized. Among the six major commercial banks(KFB, KEB, CHB, Hanil, Commercial, and Seoul), none survived on their own without government capital injection. The banks in which the government became the majority shareholder hold about one thirds of the total assets of the banking sector

Table 37. Government Ownership in Commercial Banks

(Percent)

Bank	Government Share			
	1997	1998	1999	2000
Housing & Commercial	22.38	16.1	14.5	14.5
Kookmin	15.16	8.20%	6.48	6.5
KFB	0	93.8	49	49
KEB ⁽¹⁾	47.8	33.6	35.92	32.2
CHB	0	91.1	80.05	80.1
Hanvit	0	94.8	74.65	100
Seoul	0	93.8	95.68	100
Peace	0	-	-	100

Source: Park, etal (2001) , Ghosh and Cho (2001)

Note 1): Share owned by Bok and EXIm Bank

Increased Concentration Ratio in the Banking Sector

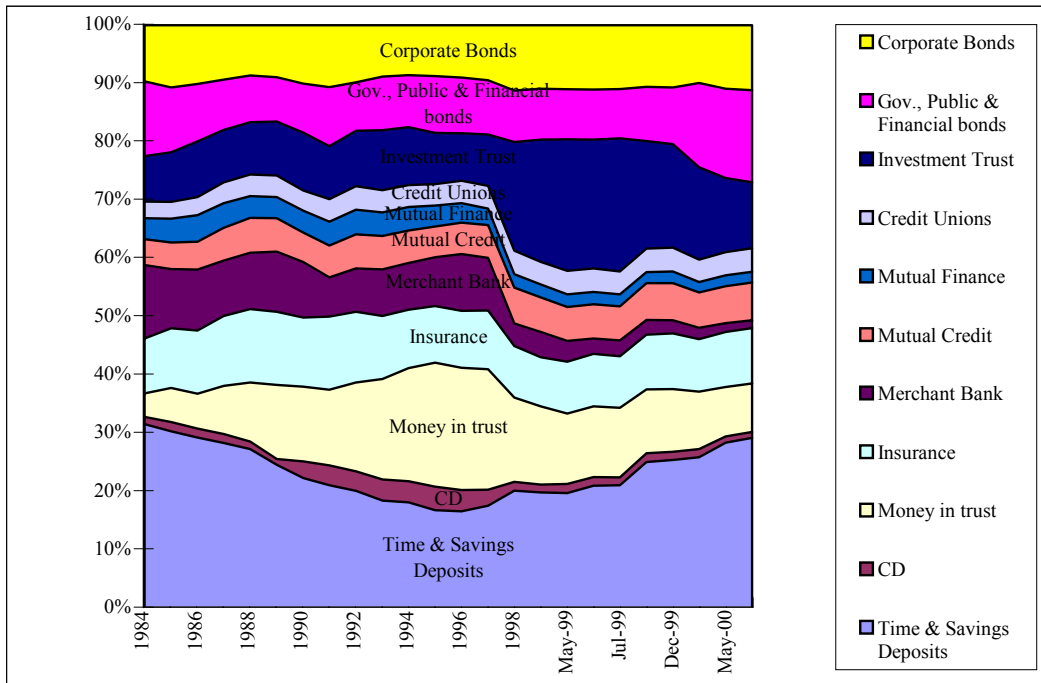
As a result of successive mergers, the asset concentration ratio of the top five banks increased from 46.7% in 1997 to 59.5% in 2000 and to 68% when the merger of Kookmin and Housing & Commercial Bank took place in November 2001. The top 5 bank's asset concentration ratio was 26.6% in the U.S, 29.3% in Japan, 73.9% in Australia and 69.3% in France.

Change in Financial Market Structure

The financial market structure has changed rapidly since restructuring started in 1998. As the early restructuring focused on banks and MBCs, the assets of bank trust accounts (money in trust) and MBCs shrank rapidly during 1998-99. The funds shifted rapidly to investment and trust companies during this period (this will be discussed in more detail below). But after the collapse of Daewoo which had been financed heavily through the issuing of corporate bonds which were accepted by ITCs, the problem of the ITCs intensified.

Consequently the funds shifted back to the banks' time and saving account starting in 1999 as is shown in Figure 11.

Figure 11. Change in the Structure of the Financial Market



*5.3. Assessments and Implications*⁴⁵

Korea's financial restructuring is still incomplete. However, based on the progress made so far, we may draw some tentative lessons. They are:

First, establishing the perception that poorly-managed banks and firms can fail seems to be the most effective way of correcting the incentive structure to change the banking culture—including management priorities, risk management, and lending behaviors. In Korea, before the crisis, there had been no failure of financial institutions of any significant size. There was a firm perception that the government would not allow banks to go under. This, combined with similar perceptions regarding corporations, i.e., 'too big to fail,' led the banks to compete in asset size rather than profitability, and toward excessive exposure to risky corporate lending. However, having experienced and observed that the government would no longer be the guarantor of bank survival and had no choice but let poorly-managed banks and firms go under, Korean banks became more cautious in their lending decisions.

Second, once the erroneous perception of the risk of financial assets in the market is corrected, the preference of the household savers is also realigned. Before the crisis in Korea, all deposits, whether at banks or NBFIs, seemed to be risk-free, since there had been no failures among such institutions. But as depositors and investors began to perceive the risks associated with NBFIs financial products, and with advances in the resolution of many insolvent NBFIs, the share of these institutions fell sharply. The depositors' preference for safety contributed to commercial banks regaining their share in indirect financing. The unusual expansion of NBFIs in Korea before the crisis reflected the presence of implicit guarantees and asymmetric regulation, and hence, this trend can be understood as a transition toward the normalization (i.e., bank dominance) of financial intermediation.

Third, strengthening the regulatory norms also contributed to improved capital adequacy ratios, asset quality, transparency of management decisions and portfolio structures.

Fourth, the improvement of the governance structure, with outside directors taking the majority in boards, has created great pressure for change in the banking culture. Outside directors are mostly academics, lawyers, accountants, and other professionals who are familiar with the trends in the banking community. Furthermore, they are supposed to protect the interests of shareholders, including minority shareholders. There has been great peer pressure—if one bank introduces a big change in personnel and compensation policy, risk management, or internal organization, the boards of other banks put pressure on their management to come up with similar changes. The emergence of the two foreign controlled banks, with a US style of management also contributed, although to a limited extent so far, to this change.

Fifth, the capital market opening, which eliminated the limit on the share of foreign investors in bank capital, resulted in a situation where the majority share of most commercial banks (except nationalized banks) is owned by foreign institutional investors.

⁴⁵ This part is partly based on the author's paper, "Economic Transition of Korea after the Crisis" which was presented at the conference "Examination of Development Strategies: Experience and Lessons of crisis" organized by the Institute of Developing Economies, Tokyo, March 21, 2001.

As a result, banks' management decisions have become very conscious of the responses of foreign investors. In a sense, corporate governance in Korea, after the complete opening of the capital market after the crisis, has become closer to that of Western advanced economies.

Last but not least, the improvement of the corporate environment through the corrections in the relative prices and incentive system, such as exchange rates, wages, interest rates, and rules of competition, provided a favorable environment for bank restructuring and improvements in the soundness of the banking sector. Although the causality works both ways, the health of the banking sector reflects the health of the real sector. The accumulation of massive NPLs in the banking sector in the past was not only due to poor credit allocation by banks, but also to misaligned relative prices and incentive structures in the economy, leading to the widespread insolvency of corporate firms. Without strong economic fundamentals, one can hardly expect a strong banking sector to exist.

However, the transition of the Korean financial sector after the crisis also raised some important questions. They involve fundamental questions on economic development and the role of the financial sector, sequencing of economic reforms, etc.

Financial Reform and Corporate Finance

In many Asian countries, including Korea, the banking sector played the role of an 'interlink' between the government and industrial firms in their pursuit of industrial policies. In the absence of a developed capital market capable of providing long-term and risk capital to industrial firms which had to compete with those of advanced economies with economies of scale, banks financed the long-term and risky investments of industrial firms. By becoming risk partners of the industrial sector, they contributed to the rapid expansion of the industrial base in these economies and 'catching-up' in the manufacturing sector, although the downside risk of this development approach accumulated as problems in the banking sector. The restructuring, then, pushed banks to change their priority toward safe assets and profit maximization. This led to a rapid shift of the bank lending from the corporate sector to the household sector and collateralized housing loans. This rapid shift, which took place at a time while the long-term and risk capital market developments still lagged, put a squeeze on corporate finance and investment, and hence, limited the future economic growth potential in these economies.

In order to sustain the growth of corporate financing, diverse investment products must be available to savers so that funds can be channeled to capital markets. Increasingly more financial savings of household sector should be channeled through the capital market instruments such as mutual funds, pension funds, and other collective investment vehicles. This implies that there still remains the challenge of further improving the corporate governance, transparency in the corporate management, accountings, and capital market infrastructure in Korea. With the transition toward a market-based system, banks also need to develop diverse corporate financing and investment banking businesses so that they can continue to serve their good credit customers in their direct financing activities.

Asymmetric Financial Restructuring and Its Impact

The way financial restructuring was approached in Korea after the crisis has heavily affected the subsequent development of the financial market structure and macroeconomic development—as the way financial liberalization was approached before the crisis affected the subsequent development of the financial market.

The financial restructuring plan under the IMF program initially underestimated the depth and scope of Korea's financial sector problems. As a result, the program in the first year concentrated mainly on the restructuring of banks and merchant banking companies (MBCs). The strengthening of regulatory standards also focused on these institutions. This was not surprising, since the origin of the crisis was the run by foreign creditors on Korean banks and MBCs as the asset quality of these institutions became increasingly dubitable.⁴⁶ However, the problems were equally or even more serious in other non-bank financial institutions (NBFIs), including investment and trust companies (ITCs), mutual savings banks and insurance companies. When the financial restructuring was initiated under the IMF program in 1998, these other financial institutions were largely unaffected by the strengthening of supervision and the restructuring. The many irregularities in fund mobilization and management by these institutions were benignly neglected by the supervisory authorities. As a result, these institutions, and especially the ITCs, took advantage of the weak or nonexistent regulatory oversight to grow explosively (See Appendix I).

This had both positive and negative impacts. The positive impact was immediate. The economic the impact of the credit crunch in the banking sector and MBCs was mitigated as these less regulated non-bank institutions grew expanded. It allowed many chaebol to obtain financing from this expanding sector to tide over the credit crunch and liquidity crisis. Some chaebol even aggressively expanded their investments during the financial crisis. Overall, this helped spur the quick recovery of the economy in late 1998 and 1999.

The negative impacts were felt in the longer term. The financial restructuring during 1998-99, which involved the shifting of funds from a sector over which regulation was strengthened to one that remained poorly regulated, did not improve the overall risk in the financial system. The rapid expansion of the investment and trust business sustained firms which ought to have gone bankrupt, increasing the level of nonperforming loans in the financial sector. When the investment and trust business imploded, the securities market collapsed, contributing to an economic recession after the short-lived recovery.

In sum, the failure to implement a comprehensive strengthening of supervision and restructuring of the financial sector reduced, whether intentionally or not, the degree of economic contraction by sustaining weak chaebol, and thus contributed to quick recovery of the economy. But it increased the ultimate cost of financial restructuring. The increased market uncertainty and the resulting collapse of the securities market caused the economic recovery to be short-lived. It also had the effect of lengthening the period of corporate and financial restructuring.

⁴⁶ In fact, only these two types of financial institutions had been allowed for foreign borrowing business until the crisis.

Furthermore, the impact of financial restructuring was asymmetric among firms: small-to-medium-sized ones, which relied mainly on bank borrowing, suffered more severely than large chaebol, which benefited from the expansion of the corporate bond market during the initial period of financial restructuring. A more detailed analysis on the effect of asymmetric financial restructuring can be found in Annex.

The Speed and Sequencing of Economic Reforms

The Korean experience during the last three years highlights the issue of the proper speed and sequencing of economic reforms. The introduction of global standards in an economy where accounting and supervisory practices had been extremely weak pushed the long accumulated (but veiled) non-performing assets to the surface at a pace which the political economy of the country could not readily accommodate. A consequence was the granting of forbearance or exceptions to recently introduced rules, benignly neglecting the rules, or relying on old measures of administrative guidance to rollover credit to troubled firms so that their loans would not be classified as non-performing. All these measures undermined the credibility of the reform program and made future restructuring more difficult.

The Korean experience has also shown that simultaneously pursuing the restructuring of the financial and corporate sector is very difficult. Weak banks could not effectively drive corporate restructuring. There was a collective incentive problem that encouraged banks to bail out troubled firms in order to protect their own BIS ratios. In a highly concentrated economy like Korea, where chaebol were dominant, there were so many financial institutions involved with any single chaebol that coordination was very complicated. The progress of restructuring in the corporate capital structure was also limited by the pace of changes in the country's financial market structure.

a) The Political Economy Aspect

In an economy where the initial problems are very deep and the gap between international standards and domestic practice wide, the speed of reforms, including the opening of the capital market and the introduction of global standards, may have to be tuned with the society's capacity to endure the economic contraction. If a social safety net is not in place to accommodate a sharp increase in the unemployment rate, and if increasing social tensions cannot be properly soothed by the political leadership, a too-ambitious speed of reform can backfire, putting the reform process itself at risk.

The Korean corporate sector's problems were extraordinarily deep. According to a study by Nam (2000), in 1999 about 25 percent of corporate firms, accounting for 40 percent of total borrowings, had an interest rate coverage ratio below one (Table 38). Therefore, in terms of the amount of debt, about 40 percent of firms were not able to pay interest out of their earnings.

Table 38. Interest Coverage Ratio and Potential NPLs

(Billion won, percent)

	Number of firms (A)	Number of troubled firms(B)	% of troubled firms (B/A)	Total borrowing (C)	Borrowing by troubled firms (D)	C/D
Listed Firms						
1995	662	109	16.5	111462	15680	14.1
1996	654	158	24.2	137133	29554	21.6
1997	641	226	35.3	192767	65111	33.8
1998	600	225	37.5	167941	65612	39.1
1999	438	94	19.5	136984	47549	34.7
Non-listed Firms						
1995	4623	1301	28.1	77580	26076	33.6
1996	4722	1463	31	95191	32459	34.1
1997	5173	1956	37.8	123289	52284	42.4
1998	5328	1856	34.8	109977	52339	47.6
1999	4804	1115	23.2	103895	49098	47.3

Source: BOK, Financial Statement Analysis various issues.
Nam (2000)

Other studies give similar results. According to an analysis undertaken by the BOK of 3,701 companies in the manufacturing sector, in 1997 roughly one in four manufacturers were unable to pay their financial costs with their cash income. A more recent BOK study of 1,807 firms for the first half of 2000 found that roughly 27 percent of firms still had an interest coverage ratio of less than one.

In the midst of this situation, the rapid introduction of global standards in banking supervision (e.g., loan classifications based on forward looking criteria) and accounting caused a flood of NPAs in the financial sector. This in turn caused the bankruptcy and liquidation of many *de facto* insolvent firms and a sharp increase in unemployment. In order to deal with these problems properly, an economy must first mobilize sufficient public funds to recapitalize troubled financial institutions on one hand, and to deal with high unemployment on the other. Otherwise, the resulting social tension may frustrate the reform process itself. Thus, a dilemma emerges in crisis-struck countries regarding the speed of reform: if it is too slow, foreign confidence cannot be restored quickly; if it is too fast, the domestic political economy cannot digest it.

b) The Difficulty of Simultaneous Restructuring of the Corporate and Financial Sectors

The Korean financial crisis was caused by a corporate debt problem. Thus, the progress of financial restructuring had to be closely linked to the progress of corporate restructuring. However, the simultaneous restructuring of the corporate and financial sector has been very difficult.

Korea adopted a creditor-led, out-of-court framework along the lines of the London Approach to corporate restructuring. Workout units were established in eight Lead Banks, which were responsible for dealing with the problem loans belonging to the second tier, or 6-64, chaebol. In order to reduce the difficulties arising from inter-creditor differences (e.g., between banks and non-banks), the government encouraged 210 financial institutions to sign a Corporate Restructuring Agreement (CRA), on the basis of

which a Corporate Restructuring Coordinating Committee (CRCC) was empowered to give advice on the viability of corporate restructuring candidates, arbitrate inter-creditor differences, and provide guidelines for workout plans proposed by creditors. Although this approach was an appropriate response to a systemic crisis, and achieved temporary financial stabilization, it has not been a fully effective scheme for promoting real restructuring.

Concerns about posting losses have made banks unwilling to force upon their debtors the necessary divestitures, asset sales, management changes, and other operational improvements. Instead, they have tended to provide term extensions, rate reductions, grace periods, and conversion of debt into convertible bonds.

It has been difficult to coordinate the progress of corporate restructuring while financial institutions are themselves subject to a restructuring program and heavily burdened with NPAs. Unless a sufficient amount of public funds is mobilized up-front to re-capitalize banks when their capital base becomes eroded due to realistic debt restructurings, and the government is willing to accept temporary financial market turbulence, rapid progress in both corporate and financial restructuring cannot be expected. Furthermore, corporate restructuring is constrained by the degree of labor market flexibility. If it is difficult to lay off redundant workers for legal or political reasons, the progress of corporate restructuring will also be limited.

c) Financial Market Structure—Capital Market Development

The debt ratios of Korean firms are extremely high by international standards. The average debt ratio of the top 30 chaebol was estimated at about 570% at the end of 1997. If global standards were applied, perhaps the majority of Korean firms would be classified as having credit ratings below investment grade. Therefore, in a country such as Korea, successful corporate debt restructuring has to rely heavily on the conversion of debt to equity. But the record so far shows that only very small amount of debt (less than 4 trillion out of more than 600 trillion won in total domestic debt) has been converted to equity. This is not surprising, however, since the debt/equity conversion can be improved only when there is a concomitant change in the financial market structure—toward deeper equity market development.

The corporate restructuring efforts during the last three years have reduced the debt/equity ratio substantially. However, this was mainly due to asset revaluations and increases in capital rather than reductions of debt. Moreover, it is still high. With this high leverage ratio of corporations, financial institutions of Korea will remain vulnerable to business cycles and external shock. Thus, the improvement of the corporate capital structure is a key for the success of Korea's financial restructuring.

However, the corporate capital structure will not be significantly changed unless changes are also made in the financial market structure. And it will take substantial time for this to happen.

The total financial debts of Korean companies reached approximately 700-800 trillion won as of 2000.⁴⁷ Assuming that the debt ratio of the corporate sector was approximately 300%, its total capital would be approximately 200 trillion won. To

⁴⁷ This is an approximate figure after subtracting 'stocks' and 'other equities' from 'total external financing'.

decrease the debt/equity ratio to, say, 200%, either capital would have to increase by approximately 100 trillion won or debt to decrease by 200 trillion won. However, it would not be practical to expect this to happen within a short period.

An effective way to expedite the reduction of the corporate debt ratio in the current situation would be a substantial debt/equity conversion. However, the magnitude of debt/equity conversion that the Korean economy could afford in the short run is limited, since simply converting the loans from financial institutions into equity investment would weaken the cash flows of financial institutions. Thus, in the end, corporate restructuring must be supported by a reconstructing of the financial market structure—by developing a deeper equity market. This will also require changes in the patterns of the financial savings by households. In other words, the job of successful financial restructuring in Korea is, in fact, an enormous job of reconstructing the balance sheet of the national economy.

The development of the equity market and changes in the structure of the financial market will also require the establishments of various institutions including vulture funds, corporate restructuring vehicles and a mutual funds industry. This means that the improvement in the corporate sector's capital structure will take a substantial time, and for the time being, the corporate sector would remain vulnerable to business cycles and external shock. Thus the opening of the capital market and adopting global standards overnight under this situation can make the overall economy quite vulnerable to a financial crisis.

6. Lessons

Korea's financial sector has gone through heavy repression, liberalization, crisis, and restructuring during the last half century. In Korea, as was in elsewhere, good financial sector policy itself was not the goal. The goal was to achieve a rapid economic growth and industrial development. In Korea's development strategy, financial sector policy played a key role. The evolution of the financial sector policies and the financial sector itself was strongly affected by the economic development strategy of Korea in each period, and in turn, it affected the path of Korea's economic development. To a large extent, the financial history of Korea during the last half century is the economic development history of Korea. What have we learned from this Korean experience?

No Policy Fits All: Financial Sector Policies should be Evolutionary

The first lesson is that there is no all-time best policy and practice. Financial sector policy is one of the most important policy measures that the state can employ for the economic development goal. Thus, depending on the state's strategy for development and the stage of the development, different financial sector policies can be employed. The policies may evolve gradually depending on the development of the economic circumstances with the ultimate evolution to a fully market-based policy. As Gerschenkron (1962) pointed out, the roles of the state and private sector institutions in industrial catching-up process are changed: "The more backward a country's economy, the greater was the part played by special institutional factors—[and] the more pronounced was the coerciveness and comprehensiveness of those factors" (1962:354). From the study of experiences of three countries, the United Kingdom, Germany, and Russia in the 19th century, he identifies distinctive institutions spearheading

industrialization as follows: (i) In Britain, the forerunner who pioneered the Industrial Revolution, the accumulated private wealth was a major source of finance and individual entrepreneurs played a central role in industrialization. (ii) In Germany, a moderately backward country, ‘the universal banks’ played a major role in financing industrialization and organizing the private sector. (iii) In Russia, an extremely backward country, the state directly mobilized financial resources and created new industries.

Different institutional patterns and financial sector policy approaches across countries were a direct result of the catching-up strategy. British industrialists were forerunners in industrialization and did not face strong international competition. British industrialization therefore was more of an unorganized and autonomous process. The technological trend during the First Industrial Revolution was also not so much towards the increasing capital-output ratios as that during the Second Industrial Revolution when Germany and Russia earnestly began their catching-up efforts. It was thus enough for the British commercial banks to provide industrialists with only operating capitals. However, Germany and Russia required special institutions to mobilize resources to realize their catching-up strategies. The universal banks carried out this role in Germany a moderately backward country, because the banking sector had already developed to a certain level although the country was far behind Britain in industrialization. They combined investment banking, which was pioneered by Credit Mobilier of France, with the short-term activities and commercial banks, and, “from the vantage point of centralized control, —were at all times quick to perceive profitable opportunities of cartelization and amalgamation of industrial enterprises” (1962:15). In Russia, an extremely backward country where “the standards of honesty in business were so disastrously low—[and] fraudulent bankruptcy had been almost elevated to the rank of a general business practice” (1962: 19-20), there was little to expect from the private sector. The Russian state took over the entire role of devising a catching-up strategy and implementing it. “Not only in their origins but also in their effect, the policies pursued by the Russian government in the late nineteenth century resembled closely those of the banks in Central Europe”, (192:20). Those different strategies and institutions adopted by the latecomers were substitutes for the lack of the supposed ‘prerequisites’ of development like capital, technologies, skilled engineers, or well-functioning financial intermediaries which were present in forerunners (Shin 2000).

Likewise, in Korea, which was an extremely backward country, the state had to intervene heavily in the mobilization and allocation of financial resources to support the expansion of new manufacturing industries. Once the country took up the strategy of catching-up through ‘substituting strategy’ (Shin 2000)⁴⁸ and competing with bigger forerunner countries, a different financial sector policy from those adopted by forerunners was inevitable. Without those extensive credit programs for exporters and heavy industrialists, such rapid growth of exports and heavy industries may not have been possible. One might argue that if Korea had not taken such a heavy interventionist approach to finance, the economic growth may have been faster by reducing the

⁴⁸ Shin names the Gerschenkron type catching-up strategy for latecomers as a ‘substituting strategy’ as compared to ‘complementing strategy’ which underwent industrialization mainly through exploiting complementary relations with bigger forerunner countries such as participating in global subcontracting networks (e.g. Singaporean or Taipei, China case) rather than attempting to directly compete with them such as the case of Japan or Korea.

misallocation of capital to over-expanded industries. It is not possible to have a counter-experiment. But once the country took the substitution strategy as mentioned above, it may be only a matter of degree, but heavy reliance on the financial system as an interlink between the state and industry was a natural outcome. In fact, the policy was quite effective in achieving the goal of rapid growth of exports and heavy industrialization although it was not clear whether that also was the best way to achieve the maximum possible growth rate given the capital input (Cho and Kim, 1995).

The effectiveness of credit policies in stimulating economic growth can be addressed with three questions: first, did directed credit increase the access to and reduce the cost of capital for the targeted sector; second, did credit supports contribute to the growth of the targeted sector; and third, did the targeted sector's growth contributed more to the rapid growth than the alternative possible sectors' growth? The last question can be answered only in the context of the general equilibrium analysis which is almost impossible to prove. But the analysis by Cho and Kim (1995) suggests positive results to the first two questions. Korea's credit policy was effective in achieving the goal of rapid expansion of exports and leapfrog of heavy industry within a short time period although it was not clear whether that was the most efficient way of capital allocation.

But the Changing Global Economic Environment urges the Life of Such Interventionist Policies Short

As time passes, and as the domestic economy got more sophisticated and more integrated to the global economy this type of approach was exposed to more negative aspects, moral hazard, corruption, collusion among vested interest groups and etc. This type of development approach could work under the protected and closed economy. When capital flows were restricted and banks were under the government control, the vulnerability of highly leveraged domestic firms to external shock could be mitigated by the strong risk partnership of the government. Lowered interest rates and inflationary financing could relieve the debt problems of troubled corporate firms and help tiding over the crisis. Restricted short-term capital flows also tended to contain the problem so that it could be resolved by domestic measures. 1997 crisis was not the first financial crisis the Korean economy faced. Korea faced similar crises in the early 1970s and early 1980s. But the authorities could prevent them from developing into full blown currency and financial crisis because they, under the fully controlled domestic financial system, could work out swift interest rate cut and debt restructuring without causing massive capital outflow.⁴⁹ Often, the decisions were biased for bailing out of financially weak firms and further expansion (i.e., 'growing-up strategy')⁵⁰ under this circumstance.

However, as the economy grew bigger and exports get growing share in the foreign markets, the foreign pressure for economic liberalization and opening (both in goods and capital markets) intensified. The pressure for financial liberalization,

⁴⁹ The nature of the crises was also somewhat different—the 1997 financial crisis was compounded with capital account crisis, while the previous ones were compounded with current account crisis. See Yoshitomi and Ohno (1999) and Yoshitomi and Sayuri (2000) for the distinction between capital account crisis and current account crisis.

⁵⁰ But, of course, this type of approach could not resolve the problems fundamentally. As a result, the corporate and financial sector problems were recurrent.

especially the capital market opening, was also built up domestically as domestic firms' operation became globalized and adverse impact of strong government interventions became increasingly conspicuous. Economic progress and advancement of living standards also intensified the people's demand for political democracy and led to the ending of the authoritarian regime. With the ensuing political democratization, the domestic pressure for economic liberalization also intensified. The opening of the economy and globalization posed a big challenge to the old development approach. Overly leveraged firms were exposed to global competition generating bigger external shocks. The problems of poorly supervised banks were exposed to foreign creditors' and investors' closer scrutinization. Korea, like many other developing countries in East Asia, achieved a 'condensed economic growth'. But in the rapidly changing domestic and global economic environment, it soon faced the challenge of 'condensed financial liberalization.' To some extent, this was the challenge faced by the Japanese economy and soon going to be faced by China.

But the Government-bank-industry Relationship has an Inertia

But the system inertia prevented the adjustment of the system to a more appropriate one to a changed environment. High debt ratio of corporate firms (which was the outcome of the past policies) made them extremely vulnerable to external shock and impeded the retreat of government from credit market interventions. The government became the capture of its own created system and policies. Thus, the question is not so much on whether that is a good policy or not as on how this policy can be changed timely in line with the changes in the economic environment.

According to the Korean experience, once the system in which banks play the role of interlink of government's industrial policies is built up it is hard to make a system transition along with the changes in the economic environment. Bureaucrats, highly leveraged firms, bankers⁵¹ have vested interests in the system and are resistant to the change toward a more market-based system. Strengthening of bank supervision also becomes difficult unless there is strong political will under such a circumstance. Upgrading of regulatory standards in loan classification and provisioning rules, for instance, can easily lead to weak capital base, severe credit squeeze, macroeconomic contraction, or even can trigger systemic problem (as was experienced in Korea after the crisis). The longer this system is continued, the more difficult is it to come out of it.

The policy makers tend to pay more attention to immediate economic growth than to adjust the system to a changing economic environment. In this system, the incentive to bank management is given in such a way that the size of deposit mobilization, assets, and market share was merit rather than the profit and soundness. Even though it became obvious that the banking sector had excessively committed itself to over-leveraged firms, the government can hardly stop it by strengthening the supervision or by other measures since this can lead to economic contraction or even severe interruption in economic growth. This tends to make the problems bigger which can only be veiled under poor regulatory rules, accounting standards and disclosure rules until finally erupting into a crisis.

⁵¹ Bankers are happy under the repressed system because they can enjoy the excess demand for credit which the competition among banks is weak.

There are Other Reasons why Liberalization Process tends to be (and should be) Slow

In an economy of which financial sector had been under strong government control, the development of infrastructure and institutions which complement inherent financial market imperfections tend to be lacked. Skill development in credit analysis, risk management is also lacking. If the financial sector is already loaded with substantial NPLs, the restructuring and recapitalization of them would take time, and so would be the strengthening of the regulatory rules and standards. Credit rating agencies for domestic usually lack credibility as was witnessed in the Korean experience. These financial infrastructure and institutions were developed in the Western advanced economies through generations and with many experiences of financial crises. They play the role of guarding against the inherent risk due to financial market imperfections.

Problems in the real sector are also significant constraints. The wide-spread financial weakness of corporate firms with high leverage ratio and low interest coverage ratio, which have been developed under the system of government-banks-industry nexus, also make the financial sector very vulnerable to external shock. The lack of strong competition rules and accounting transparency, poor corporate governance system allows transfer of profits and funds among affiliated firms and making the credit analysis and monitoring hard. Under this circumstance, the financial liberalization alone would not secure the efficient capital allocation. While leaving the distorted incentive structure in the real sector intact, financial liberalization can even intensify the distortive effects of real sector inefficiencies. Under this situation, too fast financial liberalization is exposed to a greater risk of financial crisis (Cho, 1998).

The Speed and Sequencing is a Key Issue

Financial liberalization itself cannot be a goal. The goal is to establish an efficient and stable financial system which can support the strength and efficiency in the real economy. The progress in the liberalization the financial sector should be tuned with the development in the real sector and the related policy reforms. It should also be based on the development of the financial market infrastructure and regulatory capacities. Thus the sequencing and speed of liberalization is important. The sequencing issue can be discussed both in the context of economic liberalization (i.e., the sequencing between financial liberalization and real sector liberalization) and the liberalization within the financial sector.

With regard to the first issue, according to the Korean experience, financial liberalization should be preceded or at least accompanied by the reforms in real sector.⁵² Liberalized financial sector can intensify the effects of distorted incentive structure in the real sector. Poorly established fair trade rules and their implementation left the expansion of Korean *chaebols* into almost all industrial and service areas through cross subsidization among affiliated firms. Loss making chaebol affiliates could survive and continued sucking resources from the financial market. Overvalued exchange rate and remaining high protection encouraged firms to expand into domestic demand oriented,

⁵² McKinnon (1993) also suggested that real sector liberalization (or trade liberalization) should precede financial liberalization.

non-tradable sectors including real estates development and services which built up bubbles. Poor exit rules for troubled corporate firms and widely accepted perception of ‘too big to fail’ allowed continued credit expansion to loss making firms. Strong rivalry among *chaebols* and their control over NBFIs under the lack of the appropriate corporate governance structure, and the system to monitor corporate decisions, drove over capacity in almost every industrial area.

The resulting ever-lasting strong demand for capital pushed up the liberalized interests beyond the level that could be sustained by the productivity of capital investment. The loss-making firms could not curtail their employment despite rapid automation of their production line due to rigid labor rules. The expansion of *chaebols* into new business area continued the expansion of demand for labor despite extremely high wage rates⁵³. Under this circumstance, financial sector simply played the role of passively extending mobilized savings to corporate firms which lacked adequate governance. High interest rates helped to mobilize increased financial savings which was blindly channeled to firms operating under the distorted incentive structure.

With regards to the sequencing (or managing) of financial liberalization, the Korean experience suggests the following lessons.

First, it is desirable to have a balanced approach to the liberalization of different financial market segments. Banks should be treated equally with the non-banking financial sector in the pace of liberalization. Otherwise, liberalization may cause a rapid expansion of the short-term financing mainly channeled by NBFIs. Because NBFIs in developing countries usually have less experience and less capable in assessing, managing risk and monitoring the corporate firms than the banks, financial liberalization that causes a rapid shift of funds to the NBFIs can have adverse consequence for the risk assessment and corporate governance functions of the financial system. If the previous regulation had been asymmetric between the banks and NBFIs, this means that more heavily regulated sector should be liberalized faster in order to secure a consistent and balanced liberalization between banks and NBFIs. Korea did in opposite way, and this caused a rapid shift of funds to the NBFIs dealing with short term finance.

Second, as a related lesson, interest rates of long-term financial instruments should be liberalized before short-term ones to avoid a rapid expansion of short-term financing and a deterioration of corporate financial structure. Similarly, the interest rates of banks and NBFIs should be liberalized in an equal pace as far as they are dealing with the same or similar products.

Third, it cannot be too emphasized the importance of strengthening prudential regulation and establishing the financial market infrastructure for the successful liberalization of the financial sector. Without proper development of market infrastructure, such as credible credit rating agencies, accounting and disclosure standards, liberalization of securities dealings can risk the channeling of financial savings to large but loss-making firms. Lack of credit assessment capacity in the market and adequate supervision capacity of the authorities, can lead to increased risk and vulnerability of the overall financial markets. It has been said that developing countries should have well-established securities market as a ‘spare tire’ in case when banking sector got in trouble in order to prevent the massive contractionary effect of banking crisis

⁵³ See Cho (1988) for more detailed discussion on the distortion of incentive structure in the real sector of the Korean economy.

(Greenspan 2000, Yoshitomi and Sayuri 2001). But the Korean experience day 1998-2000 suggests that the spare tire can also get flat when its growth is not based on the solid financial market infrastructure and adequate supervision. On the other hand, the development of the financial market infrastructures necessary to help the liberalized market to function efficiently can be effective only when there is a parallel development of other regulatory framework, such as rules on fair trade, cross-guarantee, auditing practice, etc. When cross-subsidization among affiliated firms is allowed, and no transparent consolidated balance sheet is available, the financial market cannot make an adequate assessment on the risk of individual firms.

Fourth, one may question on the viability of complete deregulation of the domestic financial system where corporate leverage stays in very high level. High debt ratios in the corporate sector make an economy extremely vulnerable to external shocks. In this situation, the government may be forced to intervene in the credit market to avoid massive bankruptcies and unemployment. Thus, for financial liberalization to be viable, simultaneous efforts should be made to improve the corporate debt ratio by encouraging the growth of equity markets with adequate institutional developments. Likewise, where (as in Korea) average corporate leverage is very high, it may be too much to expect that prudential regulatory rules would be strictly enforced. Fearing that a curtailment of loans to highly leveraged firms might trigger a string of bankruptcies, and deep economic recession regulators will hesitate to take decisive actions even when they see banks' lending to those firms is too risky. Only when average debt ratio of an economy is reasonably reduced, say, to near 200 percent or below, can normal conditions for supervision and credit risk assessment prevail.

Regulatory Asymmetry has Big Impact on Financial Market Structure

Another important lesson from the Korean experience is on the impact of the regulatory asymmetry on the development of financial market structure. The regulatory asymmetry between the banks and NBFIs led to a much faster expansion of NBFIs compared to the banks even though they dealt with essentially similar financial products. In Korea, deposits at banking sector became outweighed by the deposits at NBFIs by mid-1980s and this trend was intensified during the liberalization process mainly due to the asymmetry in the pace of liberalization between the two sectors.

In the early stage, the government wanted to absorb informal credit market to formal sector by allowing lenders in the informal market to establish NBFIs on which regulation was not as strictly applied as on banks. Later, the government continued asymmetric regulation partly to keep some competitive force alive in the financial market and partly because of the pressure by *chaebols* who owned NBFIs. This had a profound impact on the subsequent development of financial market structure.

The rapid expansion of the NBFIs contributed to the growth of the financial sector and diversification of the financial market. But it also contributed to the 'short-termization' of financing and increased vulnerability of the financial system.

Managing Financial Restructuring and Economic Transition

With regard to the financial restructuring and economic transition, suggests several lessons may follow from the Korean experience of restructuring after the crisis.

First, the financial restructuring and strengthening of the regulatory rules have a strong contractionary effect by diminishing the money creation function of the involved intermediaries. During the period of drastic financial restructuring and strengthening of regulatory rules, the actual monetary stance can be affected more strongly by the actions taken by the supervisory authorities than by the policies of the monetary authorities. The loan/deposit ratio and money multipliers are reduced. This suggests that during the period of massive financial restructuring and strengthening of the regulatory standards, the monetary and fiscal policies should be expansionary to avoid a severe economic contraction. This also suggests the reconsideration of the traditional IMF program where tight macroeconomic policies and comprehensive financial restructurings are simultaneously recommended. A more close coordination between the macroeconomic policies and structural reform measures in the program, are necessary.

Second, an asymmetric approach to the restructuring and strengthening the regulatory rules among different segments of financial sector can lead to a rapid shift of funds from the sectors on which the regulation is being strengthened to the sectors on which regulation remains loose. The explosive expansion of the Korean investment and trust companies took the advantage of regulatory oversight in the early stage of financial restructuring and left the overall systemic risk undiminished. This also had asymmetric consequence on the corporate restructuring between the large firms and small firms by expanding corporate bond market and contracting bank loans. This suggests for a careful balance in the approach to the financial restructuring among different segments of financial system.

Third, the introduction of the global standards overnight in an economy where the accounting and supervisory practices were very behind, pushed the long accumulated (but veiled) non-performing assets out of the surface in a pace which the political economy of the country could not readily accommodate. A consequence was granting forbearance, benignly neglecting the application of the already introduced rules, or relying on the old intervention syndrome to roll over credit to troubled firms. All these measures undermined the credibility of the reform program and made the future restructuring more difficult. The simultaneous restructuring of financial and corporate sectors also turned out difficult. Weak financial institutions could not effectively drive the corporate restructuring. This raises a question on the proper speed of adopting global standards (or one may call this economic transition). Once the global standards and rules have been introduced overnight for some reason, the question may still arise on what should be the way of granting forbearance consistent with keeping the credibility of reform programs. Perhaps giving temporary explicit bank's forbearance is better than implicit forbearance, and temporary forbearance in capital adequacy ratio is better than forbearance in loan classification and provisionings.

The Korean experience also has shown that pursuing simultaneous restructuring of financial and corporate sectors is very difficult. Weak banks could not effectively drive the corporate restructuring since this could affect the survival of their own. There was a collective incentive problem biased for bailing out of troubled firms in order to protect their BIS ratio. In a highly concentrated economy like Korea, where *chaebols* dominate, there are too many financial institutions involved in a single chaebol which makes coordination problem among them very complicated. The progress of restructuring

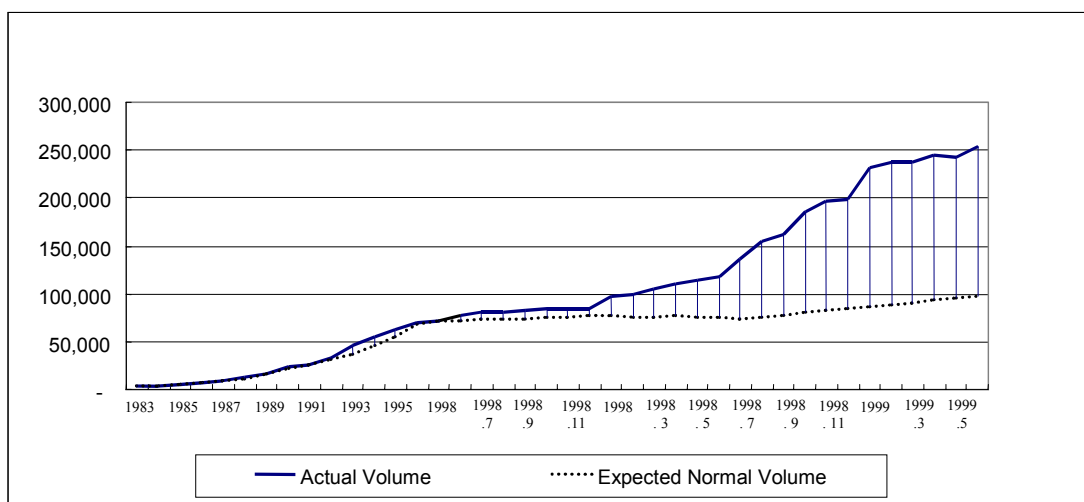
corporate capital structure is also limited by the progress of the changes in the country's financial market structure.

Appendix

The Impact of Asymmetric Approach to Financial Restructuring —Expansion and Collapse of ITCs

The total value of assets of the ITCs⁵⁴ tripled during January 1998-June 1999, from 84 trillion won to 255 trillion won. Figure 7 compares the actual growth of the ITCs with their ‘expected normal’ path of growth between 1983 and 1999. The latter was derived by applying the growth rate of total financial savings (1983) to the volume of ITCs assets in 1983, which is shown by the dashed line. In the past, the growth of the ITCs had been more or less at the same pace as that of the overall financial sector. But starting in early 1998, its growth far outpaced that of the total financial sector.

Figure A-1. Actual vs. Expected Normal Volume of Assets of ITCs
(KRW billion)



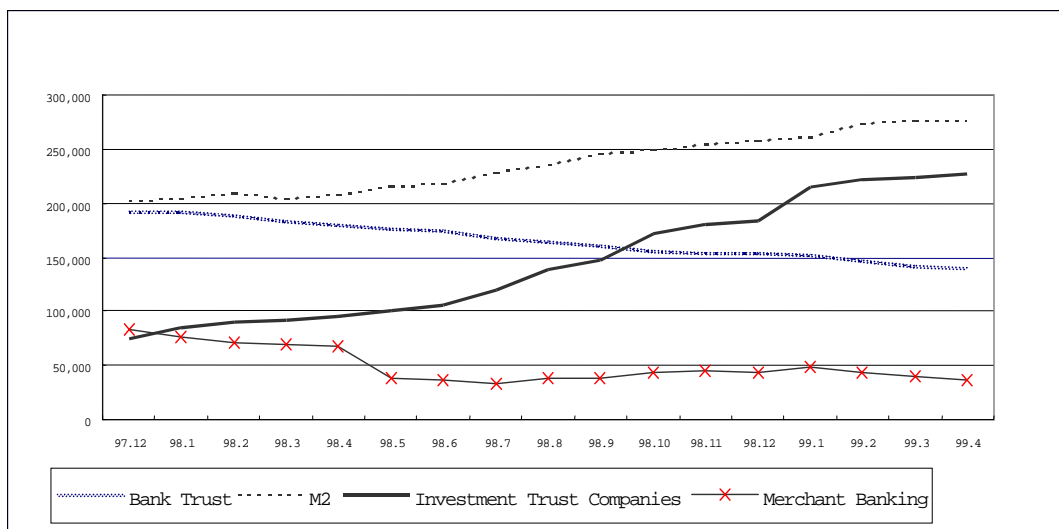
Note: (1) “Expected” is based on the growth rate of M3

Source: KITCA, Investment Trust and MOFE, Financial Statistics Bulletin, various issues.

The growth of the ITCs came mostly at the expense of banks’ trust accounts and the merchant banking industry (Figure A-2). By April 1999, total funds mobilized by the ITCs reached about 80 percent of M2, from about 40 percent at the end of 1997.

⁵⁴ During 1997-2000, two types of investment and mutual companies were allowed: Investment and Trust Companies (ITCs) could mobilize and manage funds: Investment Trust management Companies (ITMCs) could only manage funds that were mobilized by their affiliated securities companies. Now ITCs have been converted to investment trust securities companies and ITMCs. In this paper, ‘ITCs’ includes ITMCs as well as ITCs.

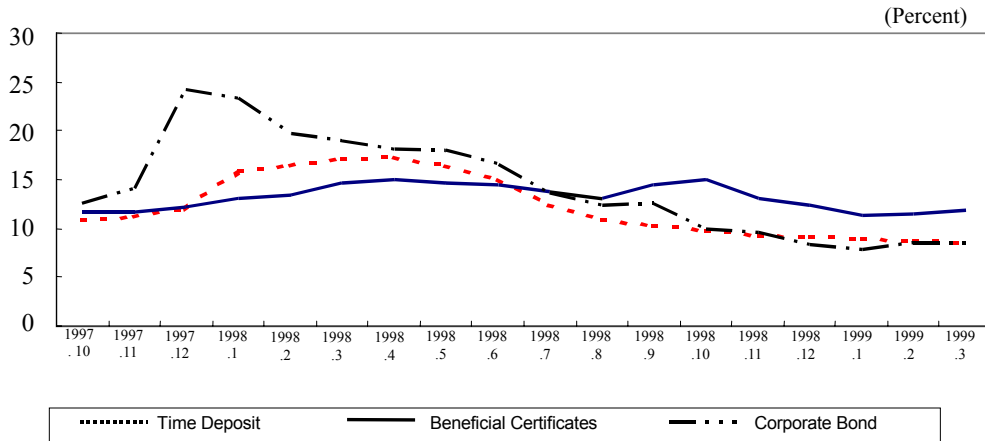
Figure A-2. Growth of the Financial Sector
(KRW billion)



Source: Ministry of Finance & Economy, Financial Statistic Bulletin, various issues

The extraordinary expansion of ITCs during this period reflected at least two factors. First, a sharp reduction of interest rates starting in early 1998 resulted in large capital gains to the funds established by ITCs in late 1997 and early 1998. Second, ITCs used this capital gain to offer higher than the prevailing market interest rates by illegally transferring high yielding bonds from the old funds to new funds. These transfers were not properly regulated by the supervisory authorities nor monitored by investors. Many ITCs controlled by *chaebols* aggressively mobilized funds, sometimes with misleading advertisement, through their affiliated security companies. As Figure 3 shows, the yields of beneficiary certificates offered by the ITCs became substantially higher than the corporate bond yields in the second half of 1998 even though the former was with shorter maturities. This was possible by the illegal transfer of high-yield bonds purchased by previously established funds to the newly established funds. In this way, they attracted many individual investors as well as institutional investors seeking interest rate arbitrage (Figure A-3).

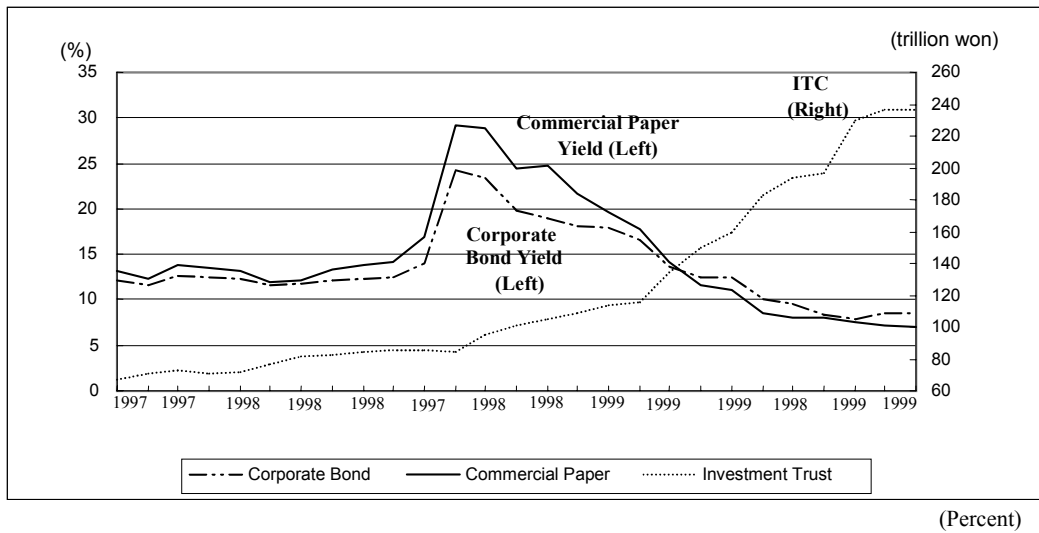
Figure A-3. Interest Rate of Time Deposit, Beneficiary Certificate, and Corporate Bond



Note: Time deposit is of more than one year and less than two years; beneficiary certificate is of long-term bond fund; and corporate bond is of three years.

Source: BOK, Monthly Bulletin, various issues.

Figure A-4. Interest Rates and Growth of ITCs



This rapid growth took place despite the extremely poor financial status of the ITCs. The ITCs, especially the largest three had been in negative capital for same time,⁵⁵ and their financial situation was further aggravated by the economic crisis (Table A-1).

⁵⁵ The problems of three major ITCs had been aggravated by the government intervention in the asset management for other policy goals such as sustaining the stock market value and the lack of professional management.

Nevertheless, they had not been subject to any corrective actions by the supervisory authorities, and were allowed to mobilize and managed funds with benignly neglected irregularities.⁵⁶

Table A-1. Balance Sheets of ITCs

	(KRW billion)					
	1997		1998		1999	
	Three ITCs	Regional ITCs	Three ITCs	Regional ITCs	Three ITCs	Regional ITCs
1. Assets	6,805.7	2,748.0	6,570.0	3,809.8	7,705.8	1,132.9
1.1. Current Assets	5,686.1	2,217.9	4,393.6	3,285.4	2,925.0	670.8
1.2. Non-Current Assets	1,119.6	530.1	2,176.1	524.1	4,780.9	462.1
2. Liabilities	7,579.3	2,589.1	10,129.5	3,869.3	10,448.8	1,125.2
2.1. Current Liabilities	7,366.5	2,538.5	10,068.8	3,831.6	8,291.1	1,114.0
(Debt)	(7,057.8)	(2,362.4)	(9,827.9)	(3,379.6)	(5,525.6)	(1,089.9)
2.2. Non-Current Liabilities	212.6	50.5	60.4	37.3	2,157.7	11.2
3. Owner's Equity	-773.6	158.9	-3,559.5	-59.6	-2,743.0	7.7
3.1. Contributed Capital	520.0	600.0	610.2	280.0	610.2	370.0
3.2. Capital Surplus	-1,293.6	-141.1	-4,169.7	-339.6	-3,353.2	-362.3
(Net Income)	(-933.2)	(-104.5)	(-2,966.2)	(-301.6)	(199.1)	(-91.6)

Source: Korea Investment Trust Companies Association

Because they did not disclosing their asset portfolio and was not audited, the ITCs were not properly monitored by investors or the supervisory authorities. Funds shifted from banks and merchant banking companies to ITCs, leaving the overall underlying risk and distortions in the financial system unchanged or even expanded.

In 1993-96, insufficient regulatory oversight on the Commercial paper (CPs) market and the merchant banking industry, allowed a rapid expansion of this segment of the financial market corporations increasingly financed long-term investment with short-term funds, creating a severe maturity mismatch. Reckless investment was also encouraged since the credit ratings and monitoring of corporate firms by the financial market was extremely poor. The weak financial structure of *chaebols* and eventually led to a string of bankruptcies, to the financial crisis of 1997.

The lack of regulatory oversight on the investment and trust industry in 1998-99 was equally dangerous. The ITCs became a channel of funding for some big chaebol-affiliated firms in weak financial health. Many of the large were owned by *chaebols* and mobilized about 130 trillion won within a year, equivalent to about one fourths of 1999 GDP. The major four chaebol—Hyundai, Samsung, Daewoo, and LG—mobilized 77 trillion won during 1998-99. These funds were used directly or indirectly to support affiliated firms by purchasing the bonds and commercial papers issued by affiliated firms and placing them in affiliated or other ITCs (to circumvent

⁵⁶ The financial insolvency problem of ITCs had dragged the government action to strengthen supervision over the practice of this industry. The government feared the possibility of run given a bad financial situation of major ITCs and has been reluctant to enforce the proper regulatory norms to these institution.

regulatory rules), with the implicit mutual agreement to cross-purchase the bonds or CP of affiliated non-financial firms.

Table A-2 shows the amount of commercial paper and corporate bonds purchased by the ITCs for the big five *chaebols*. As of April 1999, the ITCs hold 92 trillion won of securities issued by the big five *chaebols* compared with 70.2 trillion won in the banking sector. It shows that 25 trillion won was used to purchase the Daewoo securities and another 24 trillion won was used to purchase Hyundai securities. These two *chaebols* increased their domestic debt substantially in the midst of economic crisis and bank restructuring.

The total debt of Daewoo increased by 17 trillion won in 1998. While the banks and other financial institutions were reducing their credit to Daewoo, the investment trust industry provided new financing to Daewoo for their continuous expansion in 1998, and similarly for Hyundai. The forces behind the aggressive expansion and avoidance of necessary restructuring for these two *chaebols* during this period was their control of the investment and trust business.

Table A-2. Trust Assets of ITCs on Big Five *Chaebols*' Securities

(KRW billion)

	Total	The Big Five <i>Chaebols</i>					SK
		Total	Hyundai	Samsung	Daewoo	LG	
CP	51,088	24,797 (48.5%)	8,540 (16.7%)	4,106 (8.0%)	5,938 (11.6%)	4,534 (8.9%)	1,677 (3.3%)
Stock	9,925	4,712 (47.5%)	907 (9.1%)	1,623 (16.36%)	164 (1.7%)	1,018 (10.3%)	998 (10.1%)
Corporate Bonds	154,321	62,633 (40.6%)	14,835 (9.6%)	12,357 (8.01%)	18,846 (12.2%)	10,399 (6.7%)	6,195 (4.0%)
Sub total	215,336	92,143 (42.8%)	24,283 (11.3%)	18,087 (8.40%)	24,950 (11.6%)	15,952 (7.4%)	8,870 (4.1%)
Total trust assets	244,723	(37.7%)	9.9%	7.4%	10.2%	6.5%	3.6%

Note: As of April 30, 1999

While the authorities were pushing corporate restructuring by tightening of regulations over banks' and other financial institutions' lending, this was undermined by the explosive expansion of investment and trust business, which was almost completely out of the proper regulatory enforcement. Furthermore, the fact that funds shifted to financially troubled ITCs meant that the potential systemic risk in the Korean financial market had not diminished significantly despite hard efforts of the financial supervisory authorities to improve the soundness of the Korean financial system during this period.

About 22 percent of corporate bonds issued between December 1997 and December 1999 became defaulted by the end of 2000 as the companies that issued the bonds went bankrupt (Oh and Rhee, 2001), suggesting that the investment trust sector lacked the capacity to assess risk. As a result, Korea's financial savings were further wasted. Expanding finance to insolvent firms limited the opportunities for more

profitable and promising firms to obtain financing, eroding the long-term growth potential of the economy.

The rapid expansion of the ITCs and the corporate bond market during 1998, when domestic interest rates were high, effectively lengthened the period of high interest payment burden to corporate sector. As shown in Table A-3, corporations paid back short-term loans and commercial paper which heavily issuing bonds, most with a maturity of three years. Corporate bond issues increased sharply during the period of December 1997 to March 1999. This switching to long-term debts from short-term debts during the period when interest rates were relatively high extended the adverse impact of the high interest rate policy adopted after the crisis.

Table A-3. Financing Pattern of Non-Financial Firms

(Average share, percent)

	1981-1985	1986-1990	1991-1995	1996	1997	1998	1999
Bond	10.5	13.6	19.5	18.0	23.9	180.0	72.1
Equity	13.6	22.9	15.6	11.0	7.8	53.0	7.6
CP	3.0	5.9	8.1	17.6	3.9	-45.8	-32.3
Sub Total	27.1	42.4	43.2	46.7	35.6	187.4	47.4
Loans	48.0	35.0	38.2	28.3	37.8	-63.9	4.1
Foreign	1.6	3.2	3.5	10.5	5.7	-38.5	19.7
Others	23.3	19.4	15.1	14.5	20.9	15.1	28.8
Total	100	100	100	100	100	100	100

Source: Flow of Funds, Bank of Korea, various issues.

Thus, the asymmetric approach to financial restructuring or benign regulatory oversight over the ITCs, whether intended or not, contributed to the quick economic recovery in 1999, but delayed corporate restructuring and deepened financial sector problems. The increased market uncertainty and the resulting collapse of the securities market caused the economic recovery to be short lived. Since the ITCs expanded most rapidly from mid-1998 to mid-1999, the amount of corporate bonds issued during this period was substantial, with large amounts maturing in 2001 and 2002. In 2001 alone, 65 trillion won of corporate bonds fell due, of which about 25 trillion won were rated below investment grade.

The above analysis indicates the importance of a careful balance in the strengthening of regulatory rules and in the initiation of restructuring across different financial institutions and market segments to avoid unexpected development financial markets.

Appendix

Tables and Figures

Table A-1. Foreign Debt of Brazil, Mexico and Korea

(Unit: million dollars)

	1967	1971	1973	1975	1978
Brazil					
Total Debt	3434.4	6295.4	9176.7	14707.8	31275.7
Public Loan	2598.3	3487.7	4545.4	5812.9	9754.4
Commercial Loan	395.7	1587.1	1863.0	1723.3	4246.3
Financial Institution	440.4	1220.6	2768.3	7171.6	17730.3
Mexico					
Total Debt	2675.5	4206.5	7249.3	13547.7	27021.5
Public Loan	1154.8	1702.8	2708.4	3649.8	5345.6
Commercial Loan	370.1	365.0	318.5	499.1	404.5
Financial Institution	1150.6	2138.7	4222.2	9398.8	21271.3
Korea					
Total Debt	1199.2	3243.8	4940.0	7173.9	18146.3
Public Loan	434.7	1415.7	2730.7	3796.8	8210.9
Commercial Loan	703.3	1327.8	1308.8	1466.2	3921.6
Financial Institution	61.3	550.3	900.5	1910.9	6013.8
Total, all LDCs					
Total Debt	45069.5	76158.5	109763.0	167446.8	310598.0
Public Loan	31890.3	53715.0	73516.1	103884.6	166573.7
Commercial Loan	6492.6	12508.5	13588.0	19146.2	29916.9
Financial Institution	6686.6	9874.9	22659.1	44416.0	114017.3

Source: Friedan, International Organization (1981)

Table A-2. Deposit Share of Banks and NBFIs, 1974-85

(100 million won, unless otherwise noted)

Institution	1978	1979	1980	1981	1982	1983	1984	1985
Bank ^(a)	68,831	87,659	115,375	149,162	188,474	220,956	248,188	275,127
Percentage share	79.3	76.1	73.3	68.9	64.6	60.9	57.6	58.6
Nonbank	18,014	27,458	42,085	67,280	103,305	144,745	182,679	194,714
Percentage share	20.7	23.9	26.7	31.1	35.4	39.1	42.4	41.4
Investment and finance companies	9,407	13,378	20,984	32,153	42,273	54,971	70,118	64,990
Investment and trust companies	2,413	3,615	6,351	13,542	27,683	36,536	43,129	49,027
Mutual savings finance companies	1,607	2,682	4,000	6,123	9,566	14,743	19,917	23,878
Life insurance companies	3,514	6,582	9,427	13,905	22,087	33,634	47,383	54,368
Other	1,073	1,201	1,323	1,557	1,696	1,861	2,286	2,451
Total	-	-	-	-	-	-	-	-

(a). Includes money in trust, commercial bills, and demand certificates of deposit.

Source: Various issues of Korea, Ministry of Finance, *Fiscal and Financial Statistics*.

Table A-3. Four-stage Liberalization of Interest Rates

		Measures
First Stage	Deposits	<Implemented in November 1991> Bank: CD, large denomination RPs, commercial bills and trade bills, time deposits with maturity of three years (new). NBFI: large denomination CPs, time deposits with maturity of at least three years, time deposits of mutual savings & finance companies with maturity of at least two years, etc.
	Loans	Bank: overdrafts, discounts on commercial paper apart from loans assisted by BOK rediscounts, overdue loans NBFI: discounts on commercial bills of trust, mutual savings & finance companies, insurance, discounts on CPs and trade bills of investment finance corporations, etc.
	Bonds	Corporate bonds with maturity of at least two years
Second Stage	Deposits	<Implemented in November 1993> Bank: time deposits with maturity of at least two years, installment-type deposits with maturity of at least three years such as installment savings, mutual installments, etc. NBFI: time deposits with maturity of at least two years, installment type deposits with maturity of at least three years such as installment savings, mutual installments, etc. Cf. mutual savings & finance companies: time deposits with maturity of at least one year and installment savings with maturity of at least two years, etc.)
	Loans	All loans from banks and non-banking financial institutions except policy loans. Corporate bonds with maturity of less than two years, financial debentures,
	Bonds	Government and public bonds. Minimum maturity of CPs reduced to two months.
Third Stage	Deposits	<Partially implemented in July 1994> Minimum maturity of CP shortened from 91 days to 60 days; issue of cover bills by banks allowed. <Partially implemented in December 1994> Time deposits with maturity of less than two years and installment savings with maturity of 2 to 3 years.
	Loans	Prime rate on loans within aggregate credit ceiling system of BOK.
	Deposits	<Partially implemented in July 1995> Time deposits with maturity of six months to one year and installment savings with maturity of one to 2 years. Expanded liberalization of short-term marketable products (minimum maturity shortened and minimum issue denomination lowered).
	Loans	Loans within aggregate credit ceiling system of BOK.
	Deposits	<Full implementation in November 1995> Time deposits with maturity of less than 6 months and installment savings with maturity of less than one year, etc. Preferential savings & company savings with maturity of at least three months. Expanded liberalization of short-term marketable products (lowered the minimum issue pars).
Fourth Stage	Deposits	<Implemented in July 1997> Banks: Savings deposit accounts, preferential savings with maturity of less than three months and MMDA, Company savings with maturity of less than three months and MMDA. Merchant Banks: Bills issued with maturity of less than one month. Trust-type securities savings. Investment Trust: Passbooks. Mutual savings: Preferential time & savings deposits with maturity of less than 3 months. Mutual credits & Credit unions; Community credit cooperatives: Deregulation of the maturity of short-term marketable products (CD, RP, CP, etc.), minimum denomination, repurchasing fee of trust companies, interest rate of time deposits with maturity, etc.

Table A-4. BOK's Lending to Banks and Monetary Stabilization Bonds Issued

(Trillion won)

Year	Loans & Discounts to Deposit Money Banks	Monetary Stab. Bonds issued
1990	11.0	15.6
1991	12.9	13.9
1992	16.4	20.6
1993	15.9	24.4
1994	13.4	25.3
1995	11.1	25.8
1996	6.7	25.0
1997	10.9	23.5

Source: Bank of Korea, Monthly Bulletin, various issues; Economic Statistics Yearbook, various issues

Table A-5. Reserve Requirements of Deposit Money Banks

(Percent)

Effective Date	Time & Savings Deposits	Demand Deposits
1985 (July 23)	4.5	4.5
1987 (February 20)	4.5	4.5
(November 23)	7.0	7.0
1988 (December 23)	10.0	10.0
1989 (May 8)	10.0 (30.0)	10.0 (30.0)
1990 (February 8)	11.5	11.5
1990 (March 8)	11.5	11.5
1996 (April 23)	9.0	9.0
(November 8)	7.0	7.0
1997 (February 23)	2.0	5.0

Note: Figures in parentheses show the marginal reserve ratio applied to the increment of each half-monthly average deposit compared with the first half-monthly average deposits of April 1989.

Source: Bank of Korea, Monthly Bulletin, various issues.

Table A-6. Rating Trends of Bankrupt Companies in 1997

	A	B		97.7		97.1		96.7		96.1		95		94		93	92	91
		B	B	B+	B+	A3-	A3-	A3-	A3-	A3	A3	A3	A3	A3	A3	A3		
Kyung Hyang Construction Co.	97/12/31			B+	B+	A3-	A3-	A3-	A3-	A3	A3	A3	A3	A3	A3			
Kisan Corporation	97/9/23			A3	A3+	A2-	A2-	A2-	A2-	A2-	A2-	A2-	A2-	A2-	A2-			
Kia Motors	97/9/23			A2+	A2+	A2+	A2+	A2	A2+	A2	A2+	A1	A1					
Kia Steel Co.	97/9/23			B+	B+	A3-	A3-	A3-	A3-	A3-	A3-	A3+	A3+					
New Max Co.	97/11/10	B		A3-	A3-	A3-	A3-	A3-	A3-	A3-	A3-	B+	B+					
Dainong Corp.	97/9/12			B+	B+	B+	B+	B+	B	B+	B+	B+	A3-					
Daesun Distilling Co.	97/12/1	B	B	B+	B+	B+	B	B-	B-	B-	B-	B-	B-	B-				
Dong Sung Co.	97/12/22			B-	B	B	B	B	B	B+	B+	A3+	A3+	A3+	A3+	A3+	A3	
Mando Machinery	97/12/8	A1	A1	A1	A1	A1	A1	A1	A1	A1	A1	A1	A1					
Baroque Furniture	97/10/20	B	B	B	B	B	B	B	B	B	B	B+	B+	B+	B		A3	
Sannaedle Insu Co.	97/12/15			A3	A3	A3	A3											
Kirin Co.	97/5/16			B+	B+	B+	B+	B+	B+	B+	B+							
Sammi Corporation	97/3/20			B		B+		B-	B-	B-	B-	B	B	B+	B+	A2-		
Samsung Pharmaceutical Ind. Co.	97/12/12	A3-	A3-	A3	A3	A3	A3	A3	A3	A3	A3	A3	A3+	A3+				
Sang A Pharmaceutical Co.	97/1/30			D	D	B+	B+	B	B	B+	B+	B	B+					
Seo Kwang Construction Co.	97/12/22	A3+		A3+	A3+	A3+	A3+	A3	A3+	A3+	A3+	A3+	A3+	A3+				
Soo San Heavy Industrial Co.	97/11/26	A3-	A3-	A3	A3-	A3	A3-	A3-	A3-	A3-	A3-	A2-	A3+					
Shin Poong Pharmaceutical Co.	97/12/17	A3	A3	A3+	A3+	A3+	A3+	A3+	A3+	A3+	A3+	A3+	A2-					
SBW Co.	97/10/16	A2+	A2+	A2+	A2+	A2+	A2+	A2+	A2+	A2+	A2+	A2+	A2+	A2+	A2+	A2		
Asia Motors	97/9/23	D	No action	A3+	A3+	A2-	A3+	A2-	A2-	A2-	A2-	A2	A2					
Young Jin Pharmaceutical Ind.	97/12/8	A3-		A3-		A3-		A3-	A3-	A3-	A3-	A3						
Woo Sung Food	97/10/8	B-	B-	B-	B-	B-	B-	B-	B-	B-	B-	B-	B-	B-				
Yusung Co.	97/5/8			B-	B	B-	B	B-	B-	B-	B-	B-	B-					
Jinro Limited	97/9/9	D	D	A3-	A3-	A3-	A3-	A3-	A3-	A3-	A3-	A3+						
Jinro Industrial Co.	97/9/9			B+	B+	A3-	B+											
Jin Ro General Food Co.	97/9/9			B	B	B	B	B-	B-	B	B	B+	B			B	B	
Chung Gu Housing & Construction Corp.	97/12/27	B		B	B+	B+	B+	B+	B+	A3	A3	A3+	A3+					
Tae Sung Machinery & construction Co.	97/6/30			B	B+	B	B+	A3-	A3-	A3	A3-							
Taeil Precision	97/11/10	B+	B	A3	A3	A3	A3	A3-	A3-	A3-	A3-	A3-	A3-					
Tae Hwa Shopping	97/6/17			A3	A3	A3+	A3+	A3+	A3+	A3+	A3+	A3+	A3+			A3+	A3+	
Halla Engeering & Construction Corp.	97/12/8	A2-	A2-	A2-	A2-	A2-	A2-	A2-	A2-	A2-	A2-	A3	A3	A3-	A3-	A3-		
Halla Cement	97/12/8	A3	A3	A3	A3+	A3	A3+	A3	A3	A3	A3	A3	A3	A2-				
Han Bo Steel & General Construction Co.	97/1/25			D	D	B+	B+	B+	B+	A3	A3	A3	A3					
Hanshin	97/5/31	D		B-	B			B	B	A3-	A3-	A3-	A3-	A3-	B+	B-		
Haitai Stores	97/11/3	A3+	A3+	A2-	A2-	A2-	A2-	A2-	A2	A2-	A2-	A2-	A2					
Haitai Electronics	97/11/3	A3-		A3	A3	A3-	A3	A3-	A3-	A3-	A3-	A3-	A3-					
Haitai Confectionery	97/11/3	A3+	A3+	A2-	A2-	A2-	A2-	A2-	A2-	A2-	A2-							
Hackshim Teletech	97/11/19	A3	A3	A3+	A2-	A3+	A2-	A2-		A2-								
Hyundai Metal Co.	97/11/21	A3-	A3	A3	A3	A3	A3	A3	A3	A3	A3	A3+	A3+					
Hyosung Motors & Machinery Inc.	97/12/22	A3	A3-	A3-	A3-	A3-	A3-	B+	B+	B+	B+	B-	B-					

Note: A: Date of Bankruptcy

B: Date of Rating

Source: Korea Information Service

**Table A-7. Approach Taken with Respect to Key Issues in
Financial Sector Restructuring**

Key Issues	Approach taken
Institutional and legal frameworks for restructuring	Establishment of FSC as an overarching body responsible for restructuring. Also responsible for coordinating work of other agencies involved in addressing the crisis: KAMCO, KDIC and Hanaerum Bridge Bank Launching of KAMCO, centralized asset management company, to buy and securitize bad loans.
Evaluation of potential viability	Based on self assessment, on-site supervision and external audits supplemented by audits from internationally recognized auditing firms.
Resolution strategy	Effectively a two pronged strategy involving elimination of small players deemed beyond rehabilitation (under P&A transactions as opposed to complete liquidation), and the support of banks that were considered “vital to the sector” but under acute distress. The latter has led to the nationalization of four commercial banks (Korea First, Seoul Bank, Hanvit Bank and Cho Hung Bank).
Re-capitalization strategy	Stated goal is to encourage banks to rehabilitate themselves and recapitalization of commercial banks done on a case-by-case basis. Government recapitalization has been conditional on write-down of current owners and change in management. (Thus the burden sharing that has occurred has been in terms of write down of shareholders’ capital through new rights issuance and equity injections by the Government: existing shareholders were not required to put in new capital as a condition for receiving public support). As a result of recapitalization though, Government now owns shares in 11 out of 16 remaining commercial banks and ownership exceeds 90 percent in four large banks.

Table A-8. KAMCO's Asset Resolution Strategy

Approach	Centralized Asset Management (KAMCO)
Purchase price	Initially assets purchased at above market clearing prices (i.e. subsidized). Since Feb 98, attempt to purchase at market prices. Average purchase of secured loans at 45 percent of face value (55 percent discount) and 3 percent of face value (97 percent discount) for unsecured loans. (45 percent of book value also appears to be the average price obtained in auctions of similar collateral in the market).
Nature of agency: asset disposal or restructuring	Mainly concerned with asset disposal, but recently extended its role as a corporate restructuring vehicle. Initially quick sale of assets, favored over securitization or management of assets for future sale. Since 99, emphasis shifted to maximization of value through resolution methods that would enable KAMCO to profit from potential upside of recovery, through securitization of assets in joint ventures (JV)-special purpose companies (SPCs); portfolio sales of bad loans to JV-Asset Management Companies (AMCs); and most recently, individual loan sales to JV-Corporate Restructuring Companies. By farming out longer-term management and normalization of impaired assets to specialized JVs, the agency has extended its role as a corporate restructuring vehicle.
Eligible loans	All financial institutions
Type of assets transferred	Both ordinary loans in default for more than three months (i.e. loans from companies still in operation) as well as restructured corporate loans and loans to companies in receivership or undergoing workout procedures. The latter constitutes about 70 percent of total KAMCO portfolio, of which only 20 percent has been finally resolved by the courts. First purchases were on non-recourse basis, but now sizable portion sold to KAMCO on recourse basis with regard to the principle. In general, this applies to loans of corporates undergoing court receivership where underlying valuation of loan not settled by court. Once court ordered repayment schedule implemented, KAMCO adjusts price of purchase to reflect present value of settlement.
Magnitude of assets transferred	As of September 2000, KAMCO had purchased loans of face value Won 75 trillion (14 percent of GDP).
Assets disposed as a share of total assets	As of September 2000, 51 percent resolved and 26 percent recovered. Recoveries have yielded a profit of Won 2.5 trillion (0.5 percent of GDP) over purchase price.

Table A-9. KAMCO's Resolution Methods

Resolution Method	Face Value (Won trillion)	Percent of Face Value	Yearly Distribution (Percent)		
			1997-98	1999	2000
International bidding	5.5	14.1	-	49.4	50.6
ABS issuance	6.2	16.0	-	29.4	70.6
Foreclosure auction	2.9	7.6	5.7	73.6	20.8
Public auction	0.5	1.2	-	58.9	41.1
Individual loan sale	0.5	1.3	-	-	100.0
Collection	4.5	11.7	28.1	23.7	48.2
Court authorized process	1.1	3.0	0.0	64.6	35.3
Sale to AMC	1.6	4.0	-	-	100
Sale to CRC	1.6	4.0	-	-	100
Sub total	24.3	63.0	-	-	-
Reverse & cancellation	14.3	37.0	25.4	52.9	21.7
Total	38.6	100	13.0	42.0	44.9

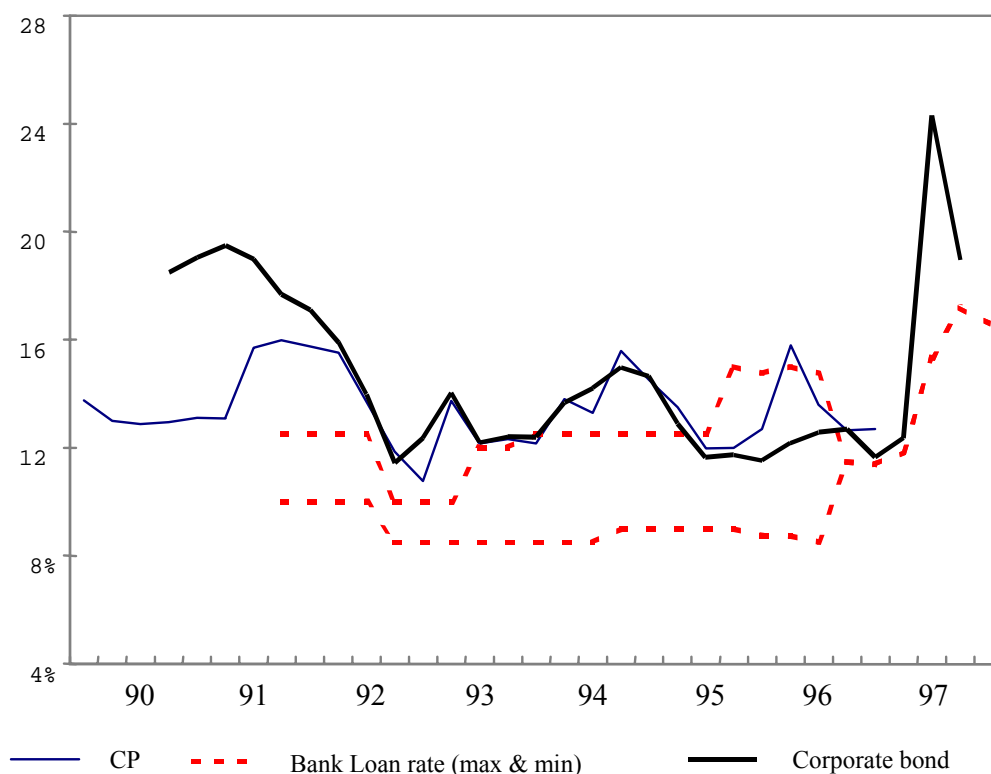
Table A-10. The Changed Incentives Framework for Financial Institutions

Changes that increase investment at risk and incentives for owners/managers	Changes that increase and/or facilitate disciplinary role of the market and depositors	Changes that improve the regulatory and supervisory framework
<ul style="list-style-type: none"> - Changes in prudential regulations (provisioning requirements) that should increase capital-at-risk for owners - Establishment of audit committees obligatory - Independent outside directors (more than 50% of directors in the case of listed firms); - Performance-based pay being introduced for managers 	<ul style="list-style-type: none"> - Partial deposit guarantee introduced in Jan 2001, replacing the 100 percent guarantee extended at the time of the crisis (except for non-interest bearing deposits which are covered 100 percent until end 2003). This should increase incentives of depositors to monitor. Level of insurance set at W 50 million per depositors which covers about 40 percent of all deposits. - Improved accounting, auditing and disclosure: - Financial institutions required to produce consolidated financial reports. - New regulations requiring banks to report their financial statements more frequently. - New classification, provisioning and income recognition should also improve quality of data. 	<ul style="list-style-type: none"> - Improvements in prudential regulations - Consolidated supervisory organization FSS, integrating previous Banking Supervisory Authority, Securities Supervision Board, Insurance Supervision Board and NBF1 Supervisory Authority. - Steps taken to ensure adequate funding to enhance FSC's operational independence and authority. - Consistent with Basle Core Principle for Effective Banking Supervision, FSC/FSB will have authority to issue and revoke financial institutions' licenses . - Supervisory authority strengthened by introduction of mandatory prompt corrective action (PCA) for cases where capital adequacy falls below certain trigger points. Most important PCA indicator for banks is BIS capital adequacy ratio; for securities companies it is the operational net capital ratio; and for insurance companies it is the solvency margin ratio. - Improved evaluation of financial institutions: for commercial banks, the CAMEL (capital adequacy, asset quality, management, earnings, liquidity) system has been augmented to include sensitivity to market risks, or CAMELS. - Introduction of fit and proper test will strengthen supervisory power over new entry.

Table A-11. Liberalization of Foreign Participation in the Korean Financial Sector

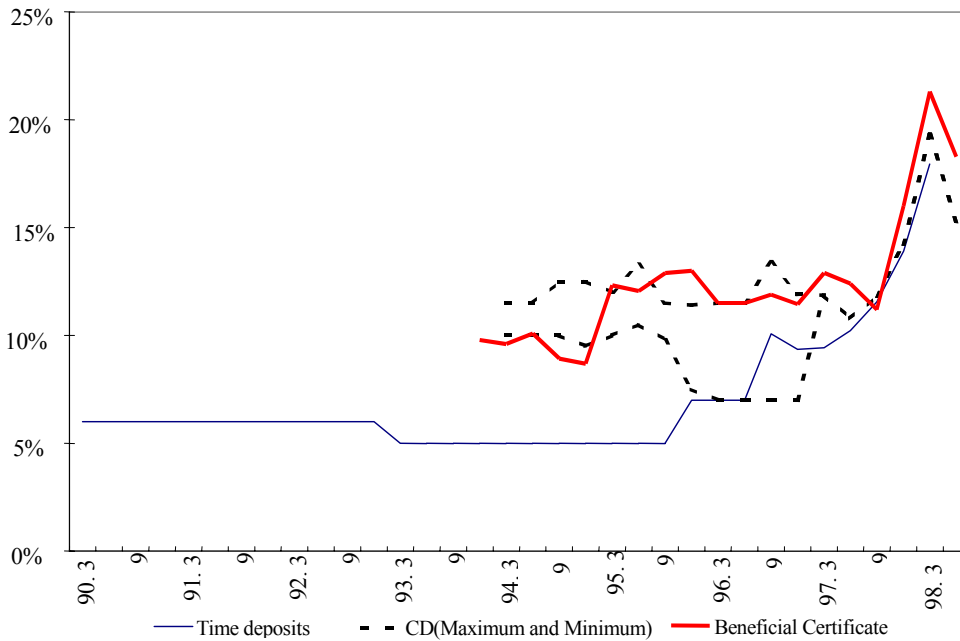
Equity Participation in Existing Korean Institutions	Subsidiary	Branch	Representative Office
Regional Commercial Bank, no need to report for up to 15%;	No restrictions as of April 1998	No restrictions since the General Banking Act was enforced in 1954	No restrictions since the General Banking Act was enforced in 1954
Commercial Bank, no need to report for up to 4% and must report to Financial Supervisory Commission for share between 4% and 10%. FSC approval required each time share exceeds: 10%, 25% and 33%			
source: Hwang & Shin			

Figure A-1. Bank Loan Rates, Yields on CPs and Corporate Bonds



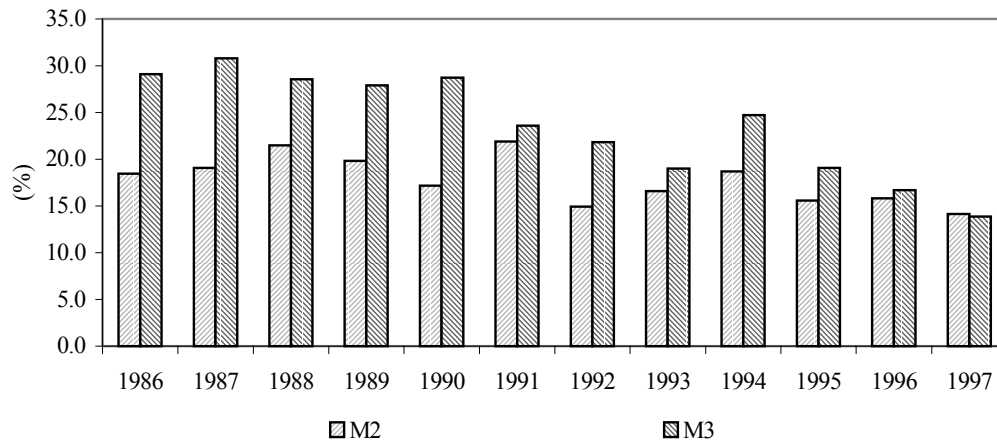
Source: Bank of Korea, Monthly Bulletin, various issues, Merchant Banks Association of Korea

Figure A-2. Interest Rates on Bank Deposits, CDs and Beneficial Certificates



Source: Bank of Korea

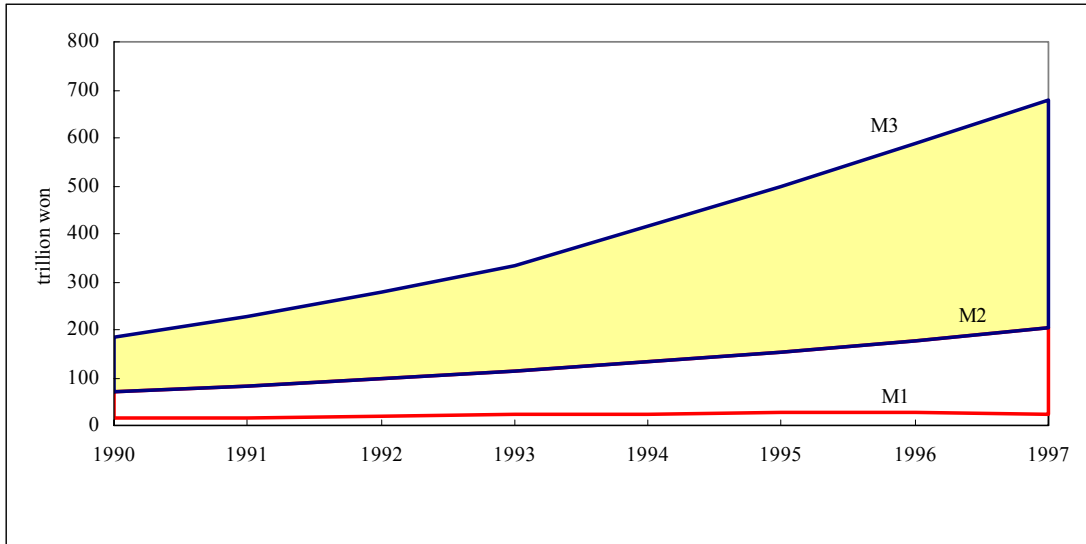
Figure A-3. Annual Growth Rates of M2 and M3



Note: M2 = M1 + Quasi-Money (time & savings deposits and residents' foreign currency deposits at monetary institutions).
M3 = M2 + other financial institutions' deposits + debentures issued + Commercial Paper sold + CD + RP + Cover bills. Include debentures, commercial paper sold, CDs sold, deposits with credit unions, mutual credits of National Federation of Fisheries Cooperatives, community credit cooperatives, mutual savings & finance cooperatives situated in locality and reserve of life insurance companies since Jan. 1980, RP sold since Jan. 1986 and cover bills since Nov. 1989.

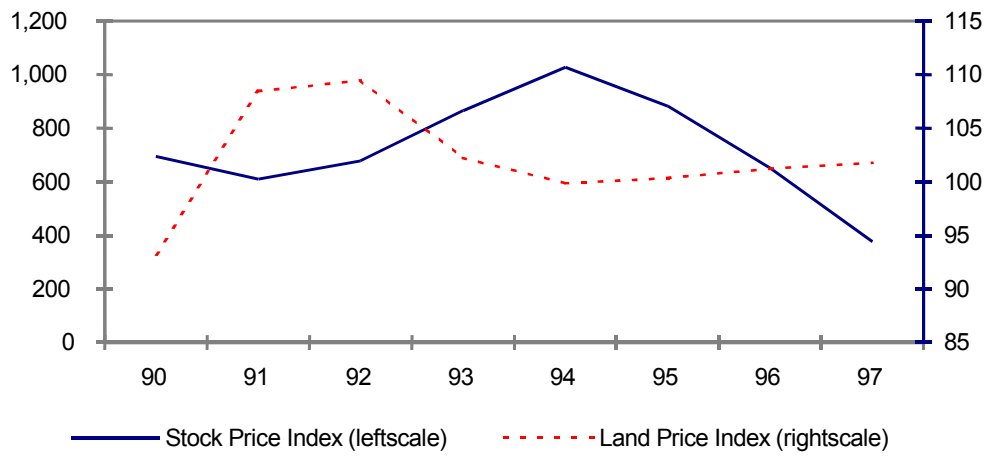
Source: Bank of Korea

Figure A-4. Outstanding Money Stock M1, M2, and M3



Source: Bank of Korea, Monthly bulletin, various issues

Figure A-5. Stock Price Index and Land Price Index



Source: Ministry of Construction and Transportation, Korea Stock Exchange

References

- Alice Amsden, *“Asia’s Next Giant : Korea and Late Industrialization”* Cambridge University Press, New York, 1989
- Anne O. Krueger, *“Contrasts in Transition to Market-Oriented Economies: India and Korea”* The International Economic Association Round Table conference: The Institutional Foundation of Economic Development in East Asia ,Tokyo, 16-19 December 1996
- Barsuto Gabriela, Atish R. Ghosh, 2000, *“The Interest Rate-Exchange Rate Nexus in the Asian Crisis Countries,”* IMF Working Paper 00/19.
- Chang, Ha-Joon & Park, Hong-Jae (1999), *“An Alternative Perspective on Government Policy towards Big Businesses in Korea: Industrial Policy, Financial Regulation, and Political Democracy”*, A paper prepared for the project on “The Korean Chaebols in Transition: Restructuring Strategy and Agenda” organized by the Korea Economic Research Institute (KERI).
- Cho, Yoon Je, “The Effect of Financial Liberalization on The Efficiency of Credit Allocation—Some Evidence from Korea,” *Journal of Development Economics*, 1988
- Cho, Yoon Je, *“Finance and Development : the Korean Approach,” Oxford Review of Economic Policy*, Vol.5, No.4, Winter 1989.
- Cho, Yoon Je and David Cole, *“The Role of Financial Sector in Korea’s Structural Adjustment,”* in V. Corbo and S. Suh. (eds.), *Structural Adjustment in a Newly Industrialized Country : Lessons from Korea*, Johns Hopkins University Press, 1992.
- Cho, Yoon-Je and Kim Joon-kyung *“Credit Policies and the Industrialization of Korea”* World Bank Discussion Papers, 1995
- Cho, Yoon Je & Joon-Kyung Kim, *Credit Policies and the Industrialization of Korea*, Korea Development Institute, December 1997 a.
- Cho, Yoon Je, *“The Structural Reform Issues of the Korean Economy”*, Working Paper 98-01, Institute of International and Area Studies, Sogang Graduate School of International Studies, January 1998 a.
- Cho, Yoon Je , *“Financial Crisis of Korea: The Causes and Challenges”*, Rising to the Challenge in Asia: A Study of Financial Markets, Volume 7, Asian Development Bank, 1999.
- Cho, Yoon Je, *“The Role of Poorly Phased Liberalization in Korea’s Financial Crisis: How Far? How Fast?”* edited by Gerard Caprio, Patrick Honohan and Joseph Stiglitz, Cambridge University Press, 2001.

- Dekle, Robert, Cheng Haiiao and Siyan Wang, 1999, "Do High Interest Rates Appreciate Interest Rates During Crisis?", forthcoming in Oxford Bulletin of Economics and Statistics.
- Demirguc-Kunt, Asli, and Enrica Detragiache. "The Determinants of Banking Crises: Evidence from Industrial and Developing Countries", Policy Research Working Paper 1828, World Bank, Washington, D.C.1997
- Demirguc-Kunt, Asli, and Enrica Detragiache, "Financial Liberalization and Financial Fragility", Paper presented to the Annual world Bank Conference on Development Economics, Washington, D.C., April 1998
- Flood, Robert and Andrew K. Rose, 2001, "Uncovered Interests Parity in Crisis: The Interest Rate Defense in the 1990s", mimeo.
- Furman, Jason, Joseph e. Stigliz, 1998, "Economic Crises: Evidence and Insights from East Asia", Brookings Papers on Economic Activity (2), 1-135.
- Gerschenkron, A. (1962) *Economic Backwardness in Historical Perspective*, Harvard University Press: Cambridge Mass.
- Goldfajn, Ilan, and Taimur Baig, 1998, "Monetary Policy in the Aftermath of Currency Crises: The Case of Asia," IMF Working Paper 98/170.
- Goldfajn, Ilan, and Poonam Gupta, 1999, "Does Monetary Policy stabilize the Exchange Rate Following a Currency Crisis?," IMF Working Paper 99/42.
- Goldfajn, Ilan and Rodrigo O.Valdes, "Are Currency Crises Predictable?," IMF Working Paper WP/97/159, December 1997.
- James Crotty and Kang-Kook Lee, "Economic Performance in Post-Crisis Koea: A Critical Perspective on Neoliberal Restructuring" , University of Messachusetts, Amherst, October 3, 2001
- Jones Leroy and Il Sakong, "Government, Business, and Entrepreneurship in Conomic Development: The Korean Case." Harvard University Press, 1970
- Joo-Ha Nam, "Non-performing Assets of the Korean Banks", mimeo, Sogang University, September 2000 (in Kroeana).
- Joseph E. Stiglitz, "More Instruments and Broader Goals: Moving Toward the Post-Washington Consensus", UNU World Institute for Development Economics Research , 1998
- Kim,Jong-Il and Lawrence Lau, "The Sources of Growth of The East Asian Newly Industrialized Currencies", Journal of The Japanese and International Economies, 1994
- Krray, Aart, 2000, "Do High Interest Rates Defend Currencies during speculative Attacks?," World Bank Policy Research working Paper 2267.

- Kaminsky, G. L. and C. M. Reinhart, “ *The Twin Crises : The Causes of Banking and Balance of Payments Problems*”, International Finance Discussion Paper, Board of Governors of the Federal Reserve System, Washington, 1996
- Krugman, Paul, Investment driven growth, “*The Myth of Asia’s Miracle*” Foreign Affairs Volume 73 No.6, 1994
- Lee, Chung H. , “*The Government, Financial System and Large Private Enterprise in The Economic Development of Korea*” , World Development , Vol.20, No.2, pp.187-197, 1992
- Nam, Duck-Woo, “*Korea’s Economic Take-off in Retrospect,*” Paper Presented at the Second Washington Conference of Korea-America Association, September 9, 1992.
- Oh Kyu-Taik, and Rhee Chang-Ryong, “*The Bond Market development after the Currency Crisis*”, mimeo, January 2001 (in Korean).
- Ohno Kenich, Kazuko Shirono and Elif Sisli, “*Can high interest Rates Stop Regional Currency Falls?*”, ADB institute Working Paper No.6, December 2000.
- Radelet, Steven, and Jeffrey D. Sachs, 1999, “*What Have We Learned, So far, From The Asian Financial Crisis?*,” Paper Prepared for NBER Conference on the Korean Currency Crisis.
- Rhee, Yung Whee, “*Trade Finance in Developing Countries*”, Policy and Research Series No. 5, World Bank, 1989.
- Rodrik Dani, “*Getting Intervention Right: How Korea and Taiwan Grew Rich*” Paper to be presented at the 20th Panel meeting of Economic Policy on 13-14 October 1994
- Ronald I. McKinnon, “*The Order of Economic Liberalization : Financial Control in the Transition to a Market Economy*”, The Johns Hopkins University Press, 1993.
- Sachs, Jeffrey D., “ *Alternative Approaches to Financial Crises in Emerging Markets*”, Development Discussion Paper No. 568, Harvard Institute for International Development, Harvard University, January 1997.
- Shin, In Seok, and Hahm, Joon Ho, “*The Korean Crisis—Causes and Resolution*”, mimeo, Korea Development Institute, July 1999
- Shin, Jang Sup, “*Substituting versus Complementing Strategy for Catching-up: Interpreting East Asian Models and Their Transitions*”, Department of Economics National University of Singapore, July 2000
- Shirai, Sayury. “*Searching For New Regulatory Frameworks for the International Financial Market Structure in Post-Crisis Asia.*”, ADB Institute Research Paper No. 25, 2001

- Stijin Claessens, Simeon Djankov, and Daniela Klugebiel, "*Financial Restructuring in East Asia: Halfway There?*", Financial Sector Discussion Paper No. 3, World Bank, September 1999
- Woo, Jung-En "*Race to the Swift: State and Finance in Korean Industrialization*", Columbia University Press, New York, 1991
- World Bank, "*The East Asian Miracle: Economic Growth and Public Policy*", World Bank Policy Research Report, 1993
- Young-Chul, Park, "*The East Asian Dilemma Restructuring Out or Growing Out?*", Essay in International Economics No.223, Princeton University, August 2001
- Young-Chul, Park, "*A Post Crisis Paradigm of Development for East Asia: Governance, Market, and Institutions*", Korea University, January 2001
- Young-Chul, Park, "*The Role of Finance in Economic Development in Korea and Taiwan*", in Alberto Giovanni, ed., *Finance and Development: Issues and Experience*, Cambridge : Cambridge University Press, pp.121-157. 1993
- Yositomi, Masaru and Sayuri Shirai, "*Technical Background paper for Policy Recommendations for Preventing Another Capital Account Crisis*", ADB Institute, Tokyo, 2000
- Yositomi, Masaru and Sayuri Shirai, "*Designing a Financial Market Structure in Post-Crisis Asia: How to Develop Corporate Bond Markets.*" ADB Institute Working Paper No.8

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