View metadata, citation and similar papers at core.ac.uk
brought to you by CORE
provided by Research Papers in Economics

CHAEBOL, FINANCIAL LIBERALIZATION, AND ECONOMIC CRISIS: TRANSFORMATION OF QUASI-INTERNAL ORGANIZATION IN KOREA

by

Chung H. Lee, Keun Lee, and Kangkoo Lee

Working Paper No. 00-4
April 2000

Chaebol, Financial Liberalization, and Economic Crisis: Transformation of Quasi-Internal Organization in Korea

Chung H. Lee*, Keun Lee**, and Kangkoo Lee***

This paper argues that the Korean government's policy with regard to financial deregulation and liberalization was endogenously determined, being largely influenced by the interest politics of perhaps the most powerful interest group in Korea, *chaebol*. It also argues that the cause of Korea's financial crisis of 1997-98 cannot be analyzed without first examining the influence of *chaebol* on the post-1993 financial liberalization, which planted the seeds of the crisis. The paper concludes that financial liberalization undertaken in a haphazard manner, manipulated by a few dominant players in the economy runs into the danger of producing an outcome worse than before.

Key words: Financial liberalization, The Asian crisis, *Chaebol*, Government intervention.
JEL classifications: G28, L52, O53.

Address for Correspondence: Department of Economics, 2424 Maile Way, University of Hawaii at Manoa, Honolulu, HI 96822, U.S.A.

*University of Hawaii at Manoa and East-West Center, Honolulu, Hawaii; **Seoul National University; ***University of Massachusetts.
The authors wish to thank Dieter Ernst, Sang-Jo Kim, Young-Mok Bae and Sang-Hyup Lee for their helpful comments on an earlier version of the paper. An earlier version of the paper was presented at the 2000 Annual Convention of the Korean Economic Association, Seoul, Korea. Financial support from the University of Hawaii Center for Korean Studies is gratefully acknowledged.

I. Introduction

The Asian financial crisis of 1997-98, which severely afflicted the South Korean economy, has again brought to surface the old debate on the role of market v. state in economic development. On one side is the market-based view that finds state intervention in financial markets (i.e., over-regulation by government and/or "crony capitalism") as a culprit for the crisis (Baily and Zitzewitz 1998, Summers 1998, World Bank 1998). On the other side is the statist view that blames the reckless deregulation of financial markets inspired by neo-liberalism for the crisis (Chang 1998, Chang, *et al*. 1998, Crotty and Dymski 1998, Singh 1999). While these two views are diametrically opposed to each other in assigning the blame for the crisis, they have one thing in common in that both presuppose implicitly an autonomous government capable of formulating and implementing whichever policy it deems necessary. This paper starts with the questioning of this premise.

We take the view that the Korean government's policy with regard to deregulation and liberalization was endogenously determined, being largely influenced by the interest politics of perhaps the most powerful interest group in Korea, *chaebol*. Even though these large family-owned conglomerates are themselves the creatures of the developmental policy pursued by the government during the period of Korea's rapid economic development, they have lately become an independent political force, exerting a powerful influence on government policies. It is our basic thesis that the cause of Korea's financial crisis cannot be analyzed without first examining the influence of *chaebol* on the post-1993 financial liberalization that, we argue, planted the seeds for the crisis. In other words, we argue that the post-1993 liberalization program was heavily

influenced by *chaebol* that were intent on expanding their ownership stake in non-bank financial institutions (NBFIs) and on increasing their access to international capital.

We interpret the whole course of the financial development and liberalization since the 1960s in the framework of the "quasi-international organization"--a framework that regards a close, long-term relationship between the government and large private business as that within a hierarchical internal organization (C. Lee 1992). This relationship was effective in promoting economic development until the mid-1980s when the state prevailed over *chaebol*. Since then, however, the state-dominated hierarchy was gradually undermined, even deteriorating into what some have called "crony capitalism", as *chaebol* had become more powerful and less dependent on the state for their finance.

In the following section we set out a theoretical framework for analyzing the course of financial liberalization in Korea. In Section III we examine the experience of financial liberalization in the 1980s and argue that it was a failed attempt due to collusion between bureaucrats and *chaebol*. In Section IV we point out that between 1987 and 1992 the state lost its control over *chaebol,* and this loss allowed, as we argue in Section V, *chaebol* to have a strong voice in shaping the agenda and course of financial liberalization in the 1990s. In Section VI we then focus on the consequences of liberalization, especially on the merchant banks that were a major beneficiary of liberalization and whose reckless expansion was responsible for the crisis. In Section VII we provide an overall assessment of the mechanism underlying the course of financial development in Korea and conclude with some policy lessons.

2. Theoretical Framework: An Extension of the Quasi-Internal Organization Framework

State intervention in Korea has often been described by the term industrial policy, which aims at promoting specific industries by selecting a specific firm or firms for the task. The government and the private enterprises thus selected maintained a close, long-term cooperative relationship with the former participating in the decisions of the latter. C. Lee (1992) conceptualizes such close relations between the government and large firms in Korea as resembling those in a hierarchical, internal organization (Williamson 1975) and thus argues that the government and *chaebol* in Korea should be viewed as constituting a "quasi-internal organization". Seen that way, state intervention with private business is equivalent to internal directives of the corporate head office to its subunits in a multi-divisional corporation, and state intervention can be effective and efficient in achieving the developmental objectives of the country as directives of corporate headquarters can be effective and efficient in achieving corporate objectives. In Korea, such state intervention has led to the rapid industrialization of an economy that was largely agrarian only forty-some years ago (Amsden 1989, Johnson 1982, Wade 1990).

The Korean experience suggests that policy implementation within the structure of the quasi-internal organization—"internal implementation"—can be more effective than parametric policy implementation through markets—"market implementation." This advantage in implementation is due to economies in transactions costs that the quasi-internal organization can provide over market. That is, direct and continuous contact between the government and large private enterprises permits sharing of

information that would be done otherwise indirectly through prices in market implementation.

In Korea, the government possessed non-price as well as price incentives and control techniques to be brought to bear upon *chaebol* in a selective manner. It could coordinate interdependent enterprises to adapt to unforeseen contingencies, and it could resolve by fiat small-number bargaining indeterminacies among enterprises to the benefit of the public good. Thus with better information and with various incentives and control techniques the government could see to it that its policies were effectively carried out by *chaebol* (C. Lee 1992, Jones and Sakong 1980, Williamson 1975).[1]

One important condition for Korea's quasi-internal organization to be effective in promoting economic growth was that it checked the bureaucrat-business collusion for rent-seeking. By mobilizing domestic savings from the entire nation but by allocating them to only to *chaebol* within the quasi-internal organization the government created rents for the favored few, which were used by and large for further investment. In Korea, the proportion of the rents going to the bureaucrats was minimized because the competition for subsidized credit was based on the objective and transparent criterion of export performance. By adopting an outward-oriented development strategy and by exposing all the competitors for subsidized credit to the discipline of world market prices the government established a clear rule for allocating subsidized credit within the quasi-internal organization. In this system the bureaucrats had little discretion for allocating credit and, as a result, the rents from the subsidized credit was largely retained for reinvestment by the firms that were highly competitive in exporting their products.

In sum, the efficacy of the quasi-internal organization as a growth-promoting

institution requires a growth-committed, hard political leadership and objective and transparent rules for allocating credit. In retrospect, one of the causes for the Korea's economic crisis of 1997-98 is that by the late 1980s these necessary conditions no longer existed in Korea. In other words, there no longer existed a hard political leadership, and the linkage between exports and credits disappeared with no alternative purposeful mechanism for credit allocation, let alone a free standing banking system and functioning capital markets. This vacuum was filled by the bureaucrats who nevertheless continued interfering with credit allocation and capital markets but without clear purposeful direction from the state. Worse, they were increasingly captured by *chaebol*, indirectly serving their interest and not that of the national economy. In other words, in Korea the shell of the quasi-internal organization continued to exist but without the prerequisite conditions that had made it an effective and efficient instrument for achieving economic development.

This change in the quasi-internal organization in Korea is conceptually similar to "fundamental transformation" or "small number" problem (Williamson 1975, 1996) and "hold-up" (Milgrom and Roberts 1992) in transaction-cost economics. The quasi-internal organization was created first by the government by picking a few among many potential members in the economy. But once the selection was made, the ex-ante "one-to-many" relationship between the government and the agents in the economy was "transformed" into an ex-post "one-to-one" relationship. This "one-to-one" relationship has an obvious advantage in that it promotes long-term, relation-specific investment, which becomes the source for additional advantages unavailable in an arms-length relationship. It can, however, deteriorate into a "locked-in" situation as one side of the relationship can "hold

up" the other. Such a situation is less likely to occur if the relationship is symmetric. This was the case in Korea in the early phase of its economic development when the government needed *chaebol* for economic growth and employment creation while *chaebol* needed the government for access to subsidized credit.

This symmetric relationship can degenerate into an asymmetric one, thereby bringing about a situation in which one side holds up the other side. This is exactly what transpired in the government-*chaebol* relationship in Korea. While the government continued relying on *chaebol* to keep the national economy going, *chaebol* were becoming less dependent on it for their financial requirements. Owing to financial liberalization and capital-account opening in the 1980s and 1990s, *chaebol* gained alternative sources of finance and became less dependent on government-controlled commercial banks. Specifically, in the 1980s the government allowed various non-bank financial institutions to grow in a relatively free environment, and it was *chaebol* who became the owners of some of these new financial institutions. And, the reforms carried out in the 1990s made it possible for banks, including merchant banks, and *chaebol* to borrow abroad. It is important to note here that, although it was liberal market ideas that influenced the government to carry out financial reform, *chaebol*'s own interest in securing alternative financing channels was an important factor in determining the agenda and process of financial liberalization in Korea.

The subsequent sections basically recount this "fundamental transformation" in the government-business relationship in Korea, arguing how the government was held up by *chaebol* and how the financial reforms that were carried out in the 1980s and 1990s basically reflected the interests of *chaebol*. In other words, the financial liberalization of

the 1980s was a product of collusion between bureaucrats and *chaebol*, and the direction and content of the post-1993 financial liberalization was strongly influenced by *chaebol*. The Korean financial crisis of 1997-98 is a result of this misbegotten financial liberalization.

3. Origin of the State-Controlled Financial System and Limited Financial Liberalization in the 1980s

One of the first things that the military government of General Park Chung Hee did in 1961 was to nationalize most of the commercial banks in Korea. In 1962, it assumed the power to appoint the heads of all commercial banks and to control the allocation of foreign exchange. It also established several special-purpose banks such as the Korea Development Bank (1961), Kukmin Bank (1963), and the Foreign Exchange Bank (1967), all engaged in administering "policy loans" on behalf of the government. It is thus no exaggeration to say that all these banks—commercial as well as special-purpose—were basically an arm of the government for allocating financial resources and were far from being banks of the type found in a market-based financial system of the West (Nam and Lee 1995, Woo 1991).

In 1965, the government carried out a financial reform allowing interest rates to rise close to market rates. Although many economists have claimed this reform as an exemplary case attesting to the correctness of the idea of financial liberalization it was far from being so. What the reform actually accomplished was to divert financial resources away from informal or curbed markets to the government-controlled commercial banks, thereby increasing the financial resources available for credit allocation by the

government. In other words, the financial reform of 1965 in effect increased the financial resources available for the policy loans directed by the government such as export credit and agricultural loans.

Even this pseudo-financial liberalization did not last long as, in 1972, the government reverted back to the policy of low interest rates and froze all debt payments on curb-market loans. This so-called August 3rd measure was the first incidence of what might be called the "low interest-heavy indebtedness-no financial (interest rates) liberalization" trap in Korea. In other words, once private firms became heavily leveraged with subsidized loans provided by the government, financial liberalization became impossible because the resulting increase in interest burden would have forced many of the indebted firms into insolvency.

The low interest rate policy was kept throughout the 1970s and the early part of the 1980s when policy loans were extensively used to promote heavy and chemical industries (Cho and Kim 1995, Dalla and Khatkhate 1995). As Table 1 (the bottom row) shows, the share of such policy loans in total domestic credits was 48.9 percent in 1973-81, 40.8 percent in 1982-86, and 30.9 percent in 1987-91. These policy loans were responsible for the excessive and redundant investments in heavy and chemical industries in the second half of the 1970s, which were an important cause for the economic downturn of 1979-80.

[Table 1: policy loans]

In the early 1980s the government began another round of financial liberalization as part of its overall structural adjustment program (Corbo and Suh 1992). It sold off government-held shares in commercial banks while imposing an 8 percent

limit on the number of shares of a bank that an individual person or *chaebol* could own. It also removed a number of entry restrictions, thus making possible the establishment of foreign joint-venture banks, NBFIs, insurance companies, regional banks, and security companies. The commercial banks were also given the freedom to set interest rates on regular deposit and loans and on corporate bonds, commercial papers, and transferable certificate of deposit. NBFIs were also given more freedom in setting interest rates.

Again, as in the case of the 1965 reform, the financial liberalization of the 1980s was more about interest rate deregulation and less about credit allocation. Granted that the share of policy loans in total domestic credit was definitely reduced, owing to the growth of NBFIs, it was nevertheless about 60 percent of total commercial bank loans throughout the 1980s (Table 1). Such a large share of policy loans is a clear indication that even though the government no longer owned the commercial banks it was able to influence their credit allocation through various administrative measures that were not apparent to outside observers.

In sum, the financial reform of the 1980s was not a full-scale financial liberalization since the government still retained much of its influence over credit allocation (Dalla and Khatkhate 1995). The mixed outcome of the reform was partly due to the interest of the private sector led by *chaebol* that were concerned with the adverse effect on their balance sheet that higher market-determined interest rates would have upon a full-scale financial liberalization. It was also due to opposition by the bureaucrats who feared the loss of their power that such financial liberalization would bring about. As we now see it, Korea missed an opportunity for a thoroughgoing financial reform in the 1980s when conditions were favorable for undertaking it: the state still had some

control over *chaebol* and the economy was booming in the mid-1980s with a huge trade surplus for the first time in its modern history. What actually took place instead was a hybrid financial reform that in turn led to a change in the power relationship between the state and *chaebol*. This change, as we will see below, had a profound effect on the course of financial liberalization in the subsequent decade.

4. Demise of the Quasi-Internal Organization and the State-Controlled Financial System

One thing that the government did as part of financial reform in the 1980s was to promote the growth of NBFIs and stock and bond markets as a way of bringing curb market funds into formal financial institutions, mobilizing savings, and reducing corporate indebtedness. As shown in Table 2, the government was successful in achieving its objective: NBFIs' share in total deposits increased from less than 30 percent up to 1980 to more than 60 percent by the early 1990s. In fact, in 1990 their share of deposits surpassed that of banks, accounting for almost 60 percent of total deposits. The same can be said about their share of loans, which exceeded that of banks. This rapid growth of NBFIs, which was due to their being subject to fewer regulations with respect to interest rates and policy loans than the commercial banks, was what the government intended to promote, but what it did not foresee was that NBFIs would displace the commercial banks as a major source of funds for *chaebol* (Leipziger and Petri 1993).

[Table 2: growth of NBFIs]

The Korean stock and bond markets also grew rapidly in the second half of the 1980s (Table 3). The ratio of the market capitalization of the listed companies to GNP

(market value/GNP), which was less than 10 percent in the early 1980s, skyrocketed to 67.7 percent in 1989. Although it declined somewhat in the 1990s it has remained in the range of 30 to 40 percent since then. A similar pattern was also observed in the bond market, showing a big jump in growth in the late 1980s. Such a rapid growth of stock and bonds markets was in part due to a huge surplus in the balance of payments in the mid-1980s. But it was also due to the deliberate government policies of promoting these markets as a way of lowering the corporate debt-equity ratio and opening *chaebol* to public ownership. Those policies included measures such as tax incentives, upgrading of stock market institutions, and increased monitoring and checking over irregular or illegal speculative investment (Amsden and Euh 1993, Cho and Kim 1995).

[Table 3: growth of stock markets]

Concomitant with the growth of NBFIs and stock and bond markets was a change in corporate finance, as these became to replace banks as a major source of funds. The share of NBFI loans and direct financing increased from 38.1 percent in 1980 to 67.5 percent in 1988 and to 69.3 percent in 1990 while bank loans decreased from the peak of 35.4 percent in 1985 to 19.4 percent in 1989 and to 16.8 percent in 1990 (Table 4). Moreover, foreign bank loans to large firms decreased significantly in the 1980s when *chaebol* started raising funds directly in foreign bond markets.[2]

[Table 4: firm's financing]

One of the consequences of the change in corporate financing was the increasing autonomy of *chaebol* from the state as they became less dependent on the government-controlled commercial banks. This autonomy was further bolstered by *chaebol* ownership of NBFIs. As of 1988, the top 30 *chaebol* owned 12 security companies (out of a total of

25), 18 insurance companies (out of a total of 35), and 18 investment trust companies (out of a total of 38). Although there was a ceiling on the number of shares that could be held by a *chaebol* group, the top 30 *chaebol*, as a whole and directly and indirectly, owned about 30 percent of the total outstanding shares of the banking sector in 1988. These changes clearly indicate that by the late 1980s the government neither had any effective influence nor was able to play the coordinating role over *chaebol*'s investment decisions. In other words, the late 1980s saw the demise of the quasi-internal organization that was effectively used to promote economic growth in Korea during the preceding two decades. This is not to say that the Korean government did not try to control *chaebol*. In fact, several measures were introduced since the mid-1980s for that purpose but to no avail (Lee 1997, Nam 1996).

In the mid-1980s the government, for instance, introduced a system that imposed an upper limit on the total amount of credit (including bank loans and loan guarantees) that a *chaebol* group could obtain. However, since *chaebol* were becoming increasingly less dependent on bank financing, this measure was not much of a constraint on their ability to obtain funds.

The government also tried to impose strict restrictions on the ownership of land and its use in order to control land and real estate speculation. It also tried to require the use of the real name in all bank accounts so as to keep track of true identities of depositors and their transactions. In spite of a popular support for these measures, the government failed to implement them in the face of opposition by *chaebol* that argued such measures would bring about a serious economic recession.

The inability of the government to implement such measures is a clear sign that

by the early 1990s the government had become a hostage to *chaebol* on account of their sheer size in the national economy. As can be seen in Table 5, the top 30 *chaebol* accounted for 29 percent GDP in 1977, 33 percent in 1985, and 34 percent in 1994. This importance in the economy gave *chaebol* the power to influence the government on various policy matters.

[Table 5: *chaebol*'s share in GDP]

In the late 1980s the Korean government tried to adopt three policy measures in order to rein in the power of *chaebol*. The first one was to make *chaebol* to sell the land they owned but was not being used for active business (the so-called May 8 Decree of 1990). The second measure was to reduce the scope of *chaebol*'s activities by designating for each *chaebol* group a maximum of three companies to specialize in the areas in which it had the strongest comparative advantage and growth-potential. The third measure was to reduce ownership concentration by disposing of some of the shares held by owner families. The penalty for not following the first measure was higher interest payments for bank debts and an eventual credit moratorium. To implement the other two measures the government offered incentives such as the lifting of upper limits on credit for the three companies selected by each *chaebol* group for specialization and for whatever number of other companies in which the owner-family share was less than 10 percent of outstanding shares.

In spite of such penalties and incentives the government was not successful inducing *chaebol* to adopt the measures. One month after the official deadline of March 1991 *chaebol* as a whole disposed of only 60.1 percent of the non-business related land.[3] Some *chaebol* groups were reported to have said that they would rather pay the interest

penalty as they expected the land price appreciation to exceed the penalty. The incentives for specialization were also ineffective as *chaebol* could receive the same kind of credit benefits by designating any of their companies for a specialized line of product and then change the designation after three years. Thus, the net effect of the incentives was, as argued by some, only to free *chaebol* from credit control without changing either their ownership or the extent of their specialization.

All these events—attempts by the government to control *chaebol* and its failure to do so—is a testament to the fact that by the early 1990s the demise of the quasi-internal organization was complete and Korea needed a new system of economic management if its economy was to continue to grow and develop. There was, however, no talk of designing a system that could manage an economy increasingly dominated by powerful and ever-expanding *chaebol*. Instead, the prevailing paradigm in both academia and officialdom was a neoliberal, hands-off approach that regarded macroeconomic stability and deregulation as being sufficient for continued economic growth.

The 1990s thus saw an increasing demand from *chaebol* for deregulation such as lifting the ceiling on their ownership of bank shares, financial opening for greater freedom in foreign borrowing, raising the aggregate credit ceiling, and so on. *Chaebol* were successful in getting these measures adopted as they were consistent with the prevailing paradigm on economic management, as by then the government had no effective stick over *chaebol*, and as the bureaucracy had been increasingly co-opted by *chaebol*. In the event, in the 1990s *chaebol* launched a strong investment drive, exemplified in the rush into the petrochemical industry by several *chaebol* groups and the entry into automobile assembly by Samsung.

While the state was losing control over *chaebol* there was no check-and-balance being developed within the corporate structure of *chaebol*. The owner-family dominated corporate governance made it difficult, if not impossible, for any objective opinions to be voiced against the owner-manager (OECD 1998). With the share of insider ownership (the sum of the owner and his family and the affiliates' share) exceeding 40 percent (Table 6) and with little protection for minority shareholders, the owner-managers were able to exercise complete control in managing corporate affairs.[4]

5. *Chaebol*'s Influence on Financial liberalization

5.1. Domestic Liberalization: Entry and Interest Rate Deregulation

In the early 1990s the government deregulated the entry and business scope of financial institutions with the aim of promoting competition and increasing economic efficiency in financial markets. One consequence of deregulation was a mushrooming of merchant banks. Many of the newly established merchant banks were formerly small-scale investment financing companies called *dan-ja-hoi-sa* that used to specialize in short-term commercial paper discounting and call-market loans. With the deregulation they simply changed their names and became merchant banks. In 1994, nine such merchant banks were established and, in 1996, there were additional sixteen. Many of these newly established merchant banks were owned and controlled by *chaebol* since they had been the investment finance companies owned by the same *chaebol* and nothing else had changed but the name.

Another important deregulation in domestic financial business was a significant loosening of restriction on *chaebol*'s ownership of other NBFIs such as life insurance

companies and investment-trust companies. Before the deregulation, the top 15 *chaebol* were not allowed to own and control life insurance companies while the next top 15 *chaebol* were allowed to have only up to a 50 percent ownership of life insurance companies. But, in May 1996, all *chaebol* but the top 5 were allowed to own and control life insurance companies. Also, before the deregulation, only the commercial banks could own investment trust companies, but in 1996 that restriction was abolished, resulting in *chaebol*'s control of many of the investment trust companies.

Deregulation of entry restrictions did not result in the hoped-for improvement in efficiency in financial markets but, instead, in an increased control of NBFIs by *chaebol*. As a matter fact, as of 1995, each of the top 10 *chaebol* owned on average 2.5 NBFIs (Table 7).

[Table 7: ownership of NBFIs]

In the 1990s, important progress was made in the deregulation of interest rates. This contrasts with the difficulty that the government had in the 1980s in deregulating interest rates (Choi 1993). Then, *chaebol* were opposed to interest-rate deregulation because they feared a heavier interest burden that higher market-determined interest rates would impose on them. In the 1990s, in contrast, interest-rate deregulation went rather smoothly because *chaebol* were now less dependent upon the commercial banks for their financing (Table 8). Thus, in 1993 the new government of President Kim Young Sam was able to declare the deregulation of all lending interest rates (except for policy loans) and many deposit interest rates, including long-term savings, corporate bonds, certificate of deposits, and checking account. The actual implementation of this deregulation policy took, however, a bizarre course.

As originally planned, long-term interest rates were to be deregulated before short-term interest rates. In the event, however, short-term interest rates such as the rates on the certificates of deposits and commercial papers of NBFIs were deregulated first in a speedy manner while time-deposit rates of commercial banks were still under *de facto* government control. In loans, too, commercial bank lending rates and corporate bond interest rates remained subject to administrative guidance when all restrictions were removed from interest rates on NBFIs' commercial papers and from the amount that they could issue.

A consequence of this "short term commodities first, long term commodities later" deregulation was a rapid increase of the share of commercial papers in firms' external financing from 7.6 percent in 1992 to 16.1 percent in 1995 (Cho 1999). High-yield commercial papers and other short-term instruments became an important part of financial transactions with NBFIs being a major player in that business. As a result, the Korean financial market became to be dominated by short-term financial activities with a concomitant rise in overall financial risk. It also became a dualistic structure consisting of tightly controlled commercial banks still lending at low controlled interest rates and rapidly growing and relatively free NBFIs headed by merchant banks, lending at higher market-determined interest rates.

5.2. External Liberalization

Given that the top 30 *chaebol* were subject to an aggregate ceiling in the amount of bank credit they could obtain, they naturally turned to NBFIs for financing. They also sought financing from offshore banking and began demanding the liberalization of international

financial transactions. This demand coincided with the pressure from international financial capital for access to the Korean market. The Korean government itself had good reason for accommodating this demand since it was keenly interested in joining the OECD, which required Korea's capital-account opening as a condition for its membership. This conjunction of forces made the post-1993 financial opening of Korea one of the most rapid and comprehensive ones in the developing world.

The measures taken to open the capital account included removing regulations on the issuance of foreign-currency denominated bonds by domestic firms and financial institutions, export-related foreign borrowing and general commercial borrowing, and abolishing the annual ceiling on foreign-currency loans by financial institutions. These measures did not, however, apply equally to both long-term and short-term transactions: short-term transactions were fully deregulated while long-term transactions were either partially deregulated or not at all. While long-term commercial borrowing and the issuance of long-term bonds, albeit deregulated, were still subject to volume restrictions, there was neither restriction nor monitoring on short-term borrowing. On top of that, the lowering of the long-term borrowing requirement from 70 to 50 percent plus giving complete freedom on foreign-exchange-based lending activities (they can now give more long-term loans) resulted in a serious term mismatch.

Why did the government carry out such unbalanced financial opening? First, it seemed to have been pre-occupied with domestic money supply and thus more concerned with the impact of the inflow of long-term capital on the money supply. Second, since the rollover of short-term credit had been routinely done, the government was not concerned about it and thus paid little attention to the term mismatch associated with

short-term borrowing. Whatever the reasons might have been, the effect of unbalanced financial opening with respect to capital inflows was a surge in short-term borrowing beginning in 1994.

5.3. *Chaebol* Reaping the Benefits from Liberalization

While financial liberalization—both external and internal--gave more freedom to *chaebol* in their search for financing, the government's ability to control them was substantially reduced since 1993. Government policy toward *chaebol* was basically grounded on the so-called "free market principle", giving them more freedom than ever. For instance, in 1993 the credit-ceiling scheme—the last stick that the government had over *chaebol*—was modified, exempting from the ceiling the affiliated companies that were in *chaebol*'s chosen areas of specialization. Furthermore, the number of *chaebol* to which the ceiling applied was reduced from the top 50 to the top 30 in 1993 and was further reduced to the top 10 in 1996. Restrictions on the holdings of non-business related land and the debt structure were also abolished. The ceiling on the ownership of bank shares was also raised in 1994, allowing more shares to be purchased by *chaebol*, and in 1996 they were given more freedom with respect to the ownership of NBFIs. Along with these deregulations the government made efforts to introduce stricter rules regarding cross debt guarantees, cross shareholdings, insider trading, role of the board of directors, and the rights of minority shareholders. These efforts, however, failed to materialize into laws.

One consequence of the unbalanced financial deregulation and lack of control over *chaebol* was a rapid debt-financed growth of investment accompanied with low profitability of investment in the 1990s. In fact, compared with Japan and Taiwan, Korea

had the highest growth rates of investment and asset and the lowest profitability (Table 9). Especially noteworthy is a sudden increase in investment in the mid-1990s, namely 56.2 percent in 1994 and 43.6 percent in 1995.

[Table 9: comparison of Korea, Taiwan and Japan]

Another important aspect of this expansion by *chaebol*, apart from their low profitability, is that it was done at the expense of profitability for banks and other financial institutions. Although *chaebol*'s share in bank loans decreased, their share of loans from NBFIs increased during the 1990s. In 1997, for instance, the debt-asset ratio for *chaebol* that did not have affiliate finance companies was 45.9 percent while that for the *chaebol* that had affiliate finance companies was 56.6 percent. The rate of return on the assets of *chaebol*-affiliate finance companies was 0.27 percent whereas the rate of return for independent finance companies was 1.0 percent (J. Kim 1999). In other words, *chaebol*'s expansion in the 1990s was to a large extent financed by their affiliate financial companies at the expense of the latter's own profitability. *Chaebol*'s failure led not only to the failure of their affiliate finance companies but also to the failure of other unrelated financial institutions, given the web of credit linkage among financial institutions.

6. Growth of Merchant Banks and Consequences of Inadequate Supervision

6.1. Growth of Merchant Banks

The banking supervisory system that existed in Korea in the mid-1990s was a collection of supervisory responsibilities dispersed among several competing authorities. Supervisory responsibility over foreign currency denominated businesses of commercial banks was divided between the Ministry of Finance and Economy (MFE, a super-

ministry created by merging the Economic Planning Board and the Ministry of Finance) and the Bank of Korea. The former supervised long-term foreign capital transactions and outward foreign direct investment while the latter had jurisdiction over short-term foreign capital inflows and their impact on the money supply. Further, while the MFE was in charge of designing economic policies relating to foreign exchange, the Bank of Korea was responsible for implementing them.

The problem of inadequate supervision was greater for merchant banks than for commercial banks. The commercial banks were subject to regular and relatively solid prudential supervision by the bank supervisory authorities under the Bank of Korea. The merchant banks were formally a responsibility of the MFE, but it did not have either the necessary supervisory manpower or the know-how of supervision. Consequently, only a few randomly selected merchant banks were examined each year. Even then, it is doubtful whether the examination was done properly since many of the retired bureaucrats from the MFE held positions in the merchant banks and were actively involved in lobbying on their behalf.

The merchant banks were naturally inclined toward short-term borrowing at higher interest rates since they had neither good international credentials nor experience in international business. Consequently, their portfolios tended to be skewed toward risky high yield assets and were prone to term- and currency- mismatches with a high vulnerability to market and liquidity risk. Furthermore, the *chaebol*-affiliated merchant banks tended to concentrate their loans to *chaebol*-affiliated firms. These merchant banks could make such related lending because they were not subject to the same lending restrictions that the commercial banks were subject to. For instance, a merchant bank

could lend as much as 150 percent of its equity capital to any single borrower, whether an individual or *chaebol*, whereas the limit for a commercial bank was 45 percent. Not surprisingly, as of March 1997 the top 30 *chaebol* accounted for as much as 51 percent of the merchant banks' total outstanding loans. In early 1997, when Kia, an automobile manufacturer, was declared bankrupt, the non-performing loans of about 30 merchant banks amounted to 4,000 billion Won, which exceeded their total equity of 3,900 billion Won. The size of non-performing loans increased to 10,000 billion Won later in the year when Jinro, Daenong, Sammi, and Wooseoung joined Kia in bankruptcy.[5]

A similar situation existed in the case of a number of the offshore funds established by Korean security or investment companies. Their number grew rapidly after 1994, reaching 166 in 1997. The total value of the 98 offshore funds set up by 28 security companies was as large as US$2.6 billion, and in 1997 their loss was estimated to be about 11,000 billion Korean Won.[6]

6.2. Short-Term Borrowing Spree

Starting in the mid-1980s Koreans were allowed to borrow abroad without government guarantee. But it was, however, the post-1993 financial liberalization that made it decisively easier for Korean firms and financial institutions to borrow abroad, leading to a wave of "borrowing spree" especially by the deregulated merchant banks. In 1992 and 1993, total short-term foreign borrowing by financial institutions was $1.2 billion and $1.1 billion, respectively. It then jumped to more than $7 billion in 1994, $11.8 billion in 1995 and $12.6 billion in 1996 (Table 10). In 1994, out of the total borrowing of $7 billions of borrowing, $5.3 billion were by commercial banks and only $0.87 billion by

merchant banks. But, in 1996, the amount borrowed by merchant banks increased to $3.19 billion while that by commercial banks increased to $7.19 billion. Foreign borrowing by non-financial institutions, notably by *chaebol*, also increased—from minus $2.66 billion in 1993 to $4.65 billion in 1994, $8.05 billion in 1995, $10.42 billion in 1996, and $18.07 billion in 1997 (Table 10).

What prompted this increase in foreign borrowing, especially short-term borrowing, was that there was neither a limit on the amount that a merchant bank could borrow abroad nor effective monitoring over who could borrow. This can be seen in the rapid increase in the number of foreign branches or subsidiaries of Korean banks—from 175 in 1993 to 273 in 1997. Many of them were ignorant in advanced financial techniques and risk management and dealt mainly with foreign subsidiaries of *chaebol* and among themselves. Furthermore, little supervision was given to them either by the head offices in Korea or by government authorities.

[Table 10: foreign borrowing]

An obvious effect of this "borrowing spree" was a big surge in Korea's external debt, which more than quadrupled from $428 billion in 1992 to $1,208 billion in 1997. Although the overall debt to GNP ratio was still relatively low at 25 percent in 1997, it hid the fact that the ratio of short term to total debt rose from 43.7 percent in 1993 to 58 percent in 1996 (Table 11).

[Table 11: debt]

6.3. Capital Exit by Stopping Rollover: The Crisis

While short term borrowing abroad by *chaebol* increased rapidly they were not earning

enough revenues to service their debt. Various measures of "profitability" all show that the top *chaebol*--the top 30 as well as the top 10--earned less in 1996 than in the preceding two years (Table 12). Other indicators of economic performance such as trade deficits also show that already in 1996 the Korean economy was in serious difficulty.

[Table 12: *chaebol* 's profitability]

Beginning in January 1997 there occurred a series of *chaebol* bankruptcies, starting with the Hanbo Steel. The Hanbo case is most typical of a reckless expansion financed with bank loans obtained through political connections. Following Hanbo, eight of the top 30 *chaebol* went bankrupt in 1997. Many of these bankrupt groups had a debt-equity ratio exceeding 500 percent, and in some cases it exceeded 1000 percent!

Another important feature of the *chaebol* bankruptcies is that because of the cross-guarantee of debts among the affiliated firms of a *chaebol* group the bankruptcy of one affiliate firm led to the bankruptcy of other affiliate firms. This chain of bankruptcies eventually brought down the entire group, destroying the myth that *chaebol* are "too-big-to-fail". The bankruptcy of several *chaebol* thus caused international investors to re-evaluate the credit-worthiness of Korean borrowers, especially after the unfolding of the July 1997 financial crisis that engulfed Thailand and Malaysia.

The financial crisis in Southeast Asia turned many of the loans and investments that Korean banks and firms made in the region into non-performing loans, which in turn caused the plummeting of their institutional credit rating (IMF 1998). In response, the Korean government undertook several corrective measures in August 1997: some of them were, however, either too late or ineffective and others turned out to be outright wrong measures. Too late or ineffective was the government effort to guarantee foreign debts of

the Korean banks and to provide them, especially the merchant banks, with more foreign exchange loans. Wrong was the government intervention in the foreign exchange market in an attempt to defend the Korean won against the dollar, which quickly led to the depletion of foreign reserves. In the end, even the Korean government lost credibility when the official disclosure of the country's foreign reserves became questionable.

The fall in the creditworthiness of Korean firms and banks and the loss of credibility in the government finally resulted in a massive capital outflow as international creditors stopped rolling over the Korean debt (Table 13). Until then the rollover had been more or less automatic, its rate being more than 100 percent up to June 1997; but in July it dropped to 89 percent and then to 59 percent in November. For the merchant banks the fall in the rollover rate began earlier in February, well before for the commercial banks, when it fell to 79 percent. This is a clear sign that many of the Korean financial institutions were losing their creditworthiness in international capital markets well before the financial crisis in Southeast Asia had any adverse effect on their balance sheets.

[Table 13: rollover rates]

On December 1, 1997, with less than $3 billion left in its foreign exchange reserve the Korean government was forced to go to the IMF for an emergency loan. On December 4, 1997 the IMF announced a bailout package of $57 billion, but that did not stop the panic in the currency market. It was not until December 24, 1997, when the United States and other industrialized countries formally joined the IMF in rescuing Korea from the crisis, that the panic stopped with some degree of stability returning in the currency market.

7. Recapitulation and the Lessons

When Korea started on its modern industrialization in the early 1960s the role of its financial system was largely that of financing the growth of *chaebol* at the behest of the government. It was the state that made the decision in allocating subsidized credit, and the commercial banks, which were nationalized, served in effect as a channel of credit allocation. This system encouraged *chaebol* to pursue a heavily indebted growth strategy, and as long as the state was in control of credit allocation and *chaebol* had no major alternative source of credit the state was able to use them as an effective instrument for economic development. In time, however, *chaebol* grew and their power vis-à-vis the state increased as their place in the economy became increasingly important. In consequence, the government could no longer unilaterally change its financial policy, freeing interest rates, as the resulting higher rates would have put a heavy debt burden on *chaebol*.

The 1965 financial liberalization in Korea, which has been often cited as a case supporting the thesis of financial liberalization, in reality served the temporary policy goal of inducing curb market funds into formal financial institutions. Even the real interest rates, which turned positive in 1965, returned to the negative zone in the early 1970s. The so-called August 3rd measure of 1972, especially, gave windfall gains to private business firms including *chaebol* by freezing all debt payments owed to informal sector lenders. Throughout the 1980s the government undertook several measures of financial liberalization but they had no effect on its basic stance of low interest rate policy.

A byproduct of the limited financial liberalization in the 1980s was the growth of NBFIs, which were owned or used by *chaebol* as an alternative source of financing. The growth of NBFIs thus gave *chaebol* greater independence from the government, and this independence plus their importance in the national economy gave them the political power to influence the agenda of the post-1993 financial liberalization.

Korea's experience in financial liberalization is a clear case of the "small number" problem and its related "hold-up" problems analyzed in transaction cost economics. In the early phase of its development, when the government was in the position to select a few *chaebol* firms among many for subsidized credit, the quasi-internal organization was efficient as it could economize in the cost of information gathering and policy implementation. The success of the quasi-internal organization, however, planted the seeds of its own demise as *chaebol* grew and became a dominant force in the national economy. Once this stage had been reached the state lost control over *chaebol* and in fact became to be "held up" by them. The course of Korea's financial liberalization reflects this shifting power relationship between the state and *chaebol*.

Financial liberalization, if correctly carried out, is supposed to establish a competitive market in which many sellers of financial instruments compete in an open, rule-based manner. But in an economy where there are a few dominant players with a strong stake in controlling their sources of finance, the course that financial liberalization will take may not be what many of its advocates had in mind. It will be manipulated to reflect the interests of big players, and its outcome is likely to be different from a competitive market. Our analysis of the Korean experience clearly demonstrates that

financial liberalization undertaken in a haphazard manner buffeted by pressures from various interest groups runs into the danger of producing an outcome worse than before.[7] Especially in a country where there are a few dominant players, as in Korea with its *chaebol*, there is a serious possibility that financial liberalization will be manipulated to serve their own interest. In other words, unless this problem of a small number dominating the economy is first resolved financial liberalization is unlikely to bring about an outcome beneficial to the national economy. Worse, it may plant the seeds for a financial crisis on a later date.

Table 1 : Share of Policy Loans in Commercial Banks and Specialized Banks (%)

	1973-81	1982-86	1987-91	Average 73-91
Policy loans by commerial banks (A)				
Government funds	7.5	7.4	8.0	7.6
NIF (national investment funds)	4.3	5.1	3.0	4.2
Foreign currency loans	21.1	19.7	19.4	20.3
Export credits	21.3	16.9	5.2	16.2
Commercial paper discounted	8.0	13.9	16.5	11.6
Special funds for the SMEs	5.9	5.6	6.5	6.0
Loans for Agriculture and Fisheries	6.1	5.3	7.4	6.2
Housing loans	8.0	13.1	14.1	10.8
Others	17.7	13.1	20.0	17.1
Total (A)	100	100	100	100
Loans by specialized banks (B)				
Korea Development Bank	91.9	71.7	83.7	84.8
(NIF)	-25.7	-18.5	-7.9	-19.5
Export & Import Banks	8.1	28.3	16.3	15.2
(NIF)	-2.5	-4.7	-2.3	-3.0
Total (B)	100	100	100	100
(A) / Total loans by commercial banks	63	59.4	59.5	61.2
(B) / Total loans by NBFI's	48	32.3	15.3	35.9
(A) + (B) / domestic credit	48.9	40.8	30.9	42.4

Note : The share of NIF is annual average during 1974-81. Others include loans for imports of key raw materials, machinery and equipment, loans to the export industry, special equipment funds, and special long-term loans.

Source : National Statistics Office, Korean Economic Indicators, various issues;

Bank of Korea, Monthly Bulletin, various issues; Cho and Kim(1997)

Table 2: Comparative Growth of Commerical Banks and NBFI's
(shares in deposits and loans, %)

	Deposits		Loans	
	Banks	NBFI's	Banks	NBFI's
1972	81.7	18.3	77.4	22.6
1974	77.3	22.7	75.5	24.5
1976	76.1	23.9	74.4	25.6
1978	74.5	25.5	67.8	32.2
1980	69.1	30.9	63.8	36.2
1982	64.3	35.7	62.2	37.8
1984	56.3	43.7	57.9	42.1
1986	49.4	40.6	56.3	43.7
1988	44.3	45.7	51.5	48.5
1990	40.5	59.5	49.7	50.3
1992	36.2	63.8	48.3	51.7

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

Table 3 : Growth of capital market in Korea (billion won)

	1980	1985	1987	1989	1990	1991	1992
Stock Market							
Companies listed	352	342	389	626	669	686	688
Book Value of the stock	2421	4665	7591	21212	23982	25510	27065
Market value (A)	2526	6570	26172	95447	79020	73118	84712
A/GNP (%)	6.9	8.4	24.7	67.7	46.1	34.1	35.5
Trading volume	1134	3620	20494	81200	53455	62565	90624
Stock price index	106.9	163.4	525.1	909.7	696.1	610.9	678.4
Corporate bonds							
No. of issuers	434	1213	1457	1504	1603	1862	2070
Book value	1649	7623	9973	15396	22068	29241	32696
Trading volume	246	660	5327	4378	2455	1394	453

Source : Korea Securities Dealers Association

Table 4. External Financing by Corporate Sector in Korea (%)

	1970	1975	1980	1985	1988	1990	1992
Indirect finance	39.7	27.7	36	56.2	27.4	40.9	36.3
Borrowing from banks (A)	30.2	19.1	20.8	35.4	19.4	16.8	15.1
Borrowing from NBFIs(B)	9.5	8.6	15.2	20.8	8	24.1	21.1
Direct finance(C)	15.1	26.1	22.9	30.3	59.5	45.2	41.4
Commercial paper	0	1.6	5	0.4	6.1	4	7.6
Corporate bonds	1.1	1.1	6.1	16.1	7.5	23	12.5
Stocks	13.9	22.6	10.9	13	40.6	14.2	15.9
Foreign borrowings (D)	29.6	29.8	16.6	0.8	6.4	6.8	5
Others	15.6	16.4	24.5	12.7	6.7	7.1	17.3
Total	100	100	100	100	100	100	100
(A) + (D)	54.8	48.9	37.3	36.2	25.8	23.6	20.1
(B) + (C)	24.6	34.7	38.1	51.1	67.5	69.3	62.5

Note : Others include government loan and corporate credit.

Source : The Bank of Korea, Understanding of capital circulation in Korea (in Korean)

Table 5. Shares and Sizes of the Chaebols

A. Shares in Total Mining and Manufactruring Productions (%)

	1980	1983	1987	1991	1994
Top 5	16.9	22.6	22.0	23.4	24.6
Top 6~30	19.1	17.8	15.3	15.4	15.0
Top 30	36.0	40.4	37.3	38.8	39.6

B. Shares of Value-Added in GNP. (%)

	1977	1981	1985	1990	1994
Top 10	20.1	20.4	24.1	22.8	26.5
Top 30	29.1	30.8	33.1	30	33.9

C. Number of the Affiliated Companies

	1987	1991	1994		1997	
Chaebols (A)	Top 32	Top 30	Top 30	Top 5	Top 30	Top 5
No. Affiliated Co. (B)	509	561	616	210	819	262
Average(%) (B/A)	15.9	18.7	20.5	42.0	27.3	52.4

Source : KDI(Korea Development Institute) and Fair Trade Commission of Korea.

Table 6 : The structure of ownership and debts in the top chaebols. (%)

	1991	1993	1995	1996	1997
Share of insiders'	47.0	43.4	43.3	44.1	43.0
Shares held by affiliates	32.9	33.1	32.8	33.8	
Shares held by owners & families	14.1	10.3	10.5	10.3	
Equity to asset ratio	19.8	19.0	19.9	20.5	18.5
Ordinary income to sales ratio		1.0	2.5	0.2	-0.3
Debt-equity ratio	369.8	348.4	348.8	387.8	449.4

Note : For the top 30 chaebols in 1993, and for the top 49 chaebols in other years

Source : the Bank of Korea

Table 7 : NBFI's owned by Chaebols, 1995

Chaebols	Security Companies	Insurance Companies	Investment & Finance Co. and Merchant Banks, others	Others	Total
Top 5 Chaebols	5	5	4	2	16
Top 10 Chaebols	9	7	7	2	25
Top 30 Chaebols	13	9	19	2	43

Notes: Others include Factoring companies, Credit Card Co's, & Credit Unions.

Source: Bank Supervisory Authority of Korea.

Table 8: Share of the top 30 chaebols in Loans by Financial Institutions (%)

	1988	1989	1990	1991	1992	1993	1994	1995
Commercial Banks	23.7	20.7	19.8	19.5	19.0	16.6	14.8	13.9
NBFI’s	32.4	36.6	37.8	36.6	35.9	37.1	37.2	38.4

Source: The Bank Supervisory Authority of Korea.

Table 9: Comparison of Profitability and Growth of Investment & Asset values in Korea, Taiwan, and Japan (%)

		1988	1989	1990	1991	1992	1993	1994	1995	1996
Profitability	Korea	4.1	2.5	2.3	1.8	1.5	1.7	2.7	3.6	1.0
	Taiwan	5.0	3.8	4.5	4.0	3.4	2.9	4.9	5.1	
	Japan	5.5	5.8	5.3	4.0	2.9	2.3	2.9		
Growth of Fixed Capital Investment	Korea	26.8	16.5	25.7	11.6	-14.0	-4.0	56.2	43.5	
	Japan	30.4	16.8	19.2	8.0	-20.0	-22.0	-8.4		
Growth of Total Asset	Korea	15.8	24.0	23.8	22.6	12.3	11.2	16.9	19.3	15.0
	Taiwan	11.1	15.3	11.7	19.1	8.9	8.1	12.5	15.1	

Sources : The Bank of Korea, The Bank of Japan

Note : Profitability is measured by ordinary profit divided by sales and ordinary profit is operating profit plus net financial costs (interest payments)

Table 10 : Foreign Capital Inflow in Korea (100 million dollars)

	1992	1993	1994	1995	1996	1997
Capital Balance (1+2+3)	69.9	32.2	107.3	172.2	239.2	60.3
1. net FDI	-4.3	-7.5	-16.5	-17.8	-23.4	-19.5
2. net portfolio investment	58.0	100.1	61.2	115.9	151.8	147.6
3. other net investment (A+B)	16.2	-60.5	62.6	74.6	110.8	-67.9
A. asset	-33.0	-45.9	-73.7	-139.9	-134.9	-107.4
B. liabilities	49.2	-14.6	136.3	214.5	245.7	39.5
Net borrowing by Banks	24.3	12.0	89.8	134.0	141.5	-141.2
Long-term	12.0	0.8	19.5	16.1	15.3	7.2
Commerical banks	9.0	1.5	21.8	20.3	24.9	6.6
Development orgs.	0.8	-0.8	0.1	-3.5	-8.5	-0.1
Merchant banks	2.2	0.1	-2.4	-0.7	-1.1	0.7
Short-Term	12.3	11.2	70.3	117.9	126.2	-148.4
Commercial banks	7.0	3.9	53.8	85.2	71.9	-103.1
Development Orgs.	5.9	5.6	7.8	15.6	22.4	-24.3
Merchant Banks	-0.6	1.7	8.7	17.1	31.9	-21.0
Net Borrowing by Non-Bank (ie. Firms)	24.9	-26.6	46.5	80.5	104.2	180.7

Source: The Bank of Korea, The Balance of Payment

Table 11. Foreign Debt of Korea by the Borrowers and Terms (Unit: $0.1 billion)

	1992	1993	1994	1995	1996	1997
Total Debt	428	439	568	784	1047	1208
Long term	243	247	265	331	437	696
Short term	185	192	304	453	610	512
Long-term ratio (%)	0.57	0.56	0.47	0.42	0.42	0.58
Short-term ratio (%)	0.43	0.44	0.54	0.58	0.58	0.42
Total External Liabilities	629	670	887	1197	1575	1544
Long term	260	267	303	410	575	860
Short term	370	403	584	787	1000	685
Public Sector	56	38	36	30	24	180
Long term	56	38	36	30	24	180
Short term	0	0	0	0	0	0
Corporate Sector	137	156	200	261	356	423
Long term	65	78	90	105	136	176
Short term	72	78	110	156	220	247
Financial Sector	235	244	333	493	667	605
Long term	122	130	139	196	277	339
Short term	113	114	194	297	390	266
Financial Sector II 1)	436	475	651	905	1195	941
Long term	139	150	177	275	415	503
Short term	298	325	474	631	780	438
Net Debt	11.1	7.9	10.3	16.9	34.7	55.7
Aggregate Liquidity 2)	10.0	14.4	12.5	10.7	-0.5	-6.2

Source : The Bank of Korea

Notes: 1) Including all foreign debt held by overseas branches of financial institutions

2) Aggregate Liquidity defined as liquidable foreign currency assets (currency reserves and other foreign assets) – short term debt

Table 12: Changing Profitability of the Chablols

A. Profitability of the 30 largest Chaebols in Korea

	1994	1995	1996
Operating profit / equity	6.23	1.11	0.87
Ordinary profit / equity	0.31	0.42	0.09
Operating profit / sales revenue	0.22	0.23	0.17
Ordinary profit /sales revenue	0.07	0.09	0.02
Operating profit / total asset	0.22	0.25	0.18
Ordinary profit / total asset	0.07	0.09	0.02

B. Profitability of the 10 largest Chaebols in Korea

	1994	1995	1996
Operating profit / equity	15.37	28.95	24.66
Ordinary profit / equity	8.46	10.38	0.75
Operating profit / sales revenue	6.22	6.23	4.7
Ordinary profit /sales revenue	1.9	2.29	0.21
Operating profit / total asset	6.34	6.74	5.02
Ordinary profit / total asset	2.16	2.65	0.4

Source: Calculation based on the data from Seung-no Choi (1995,96,97), The large corporate Groups in Korea(in Korean).

Note: Ordinary profit is operating profit plus net financial costs(interest payments)

Table 13 : Roll-over Rate of Foreign Debt Held by Korean Financial Institutions in 1997 (%)

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
Overall			109	94.9	100.6	106.3	89.1	79.2	85.8	86.5	58.8	32.2
Commercial Bank	115	95				100.0				58.8		
Merchant Bank	84	79				65.6				47.5		

Source: Park(1998) and The Bank of Korea.

Endnotes

[1] Internal implementation can be quick in achieving tangible, but not necessarily economically efficient, outcomes. Eads and Yamamura (1987, 447-448) also warned against the belief that the state's industrial policy has the unquestionable ability to create competitive advantage, by illustrating several cases of failure despite MITI's aggressive guidance and assistance. The point is that industrial policy cannot totally substitute for underlying economic conditions; rather, it acts within the framework of existing economic conditions.

[2] It was Samsung that first floated bonds in a foreign bond market in 1985. Subsequent to that, many other *chaebol* groups floated bonds abroad. Their total accumulated sum for the 1986-94 period amounted to $4.9 billion.

[3] Report by the Bank Supervision Office of the Bank of Korea, which appeared in Han-Kuk-Il-Bo (April 25, 1991). Although since then, the government achieved some success in forcing *chaebol* to sell land, the delay revealed the weakened power of the state to enforce its policies relating to *chaebol*.

[4] The problem of unchecked and overly aggressive investment drive became more serious in *chaebol* in which second-generation owners had succeeded the founders. They tended to be more aggressive as they wanted to prove their ability by initiating and hopefully making success in new business areas (K. Lee 1999).

[5] Reported at various hearings at the National Assembly of the Republic of Korea.

[6] Reported at various hearings at the National Assembly of the Republic of Korea.

[7] Studies by Crotty and Epstein (1996), Eatwell (1996), and Rodrik (1998) also point out that there is no empirical evidence linking financial opening to high economic growth.