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Background Paper

Toward Stronger Financial Sector:

Lessons from Korea's Financial Restructuring after the Crisis

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Introduction

After the 1997 crisis, the Korean banking sector has gone through a drastic and comprehensive restructuring. This restructuring is not complete yet. But, compared to what have been done in other Asian countries which faced similar crisis, Korea perhaps has done 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 banks have been substantially improved. But the banking sector restructuring also raised questions on the issues such as the role of the financial sector in supporting long-term and risky investment of the industrial firms, with which countries in the region have to struggle with. This paper briefly reviews what have been done to strengthen the banking sector in Korea, including the incentive structure, governance, and regulatory norms, after the crisis, and the impact of these reforms. Based on this, the paper attempts to draw some tentative lessons.

The first section reviews the measures taken to strengthen the financial sector with focus on the banking sector. The second section discusses the impact of these reforms on the patterns of corporate finance, banks' portfolio allocation, capital adequacy, profitability, ownership, and concentration ratio in the banking sector. The final section attempts to draw tentative conclusions with possible lessons for other Asian economies.

I. Measures Taken to Strengthen the Financial Sector

The program to restructure the financial sector in Korea has been undertaken in two rounds so far. The first round of financial sector restructuring was intended to address the immediate instability of the financial sector. The two pillars of the first stage of financial sector reform 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 was mobilized with the approval of the National Assembly. The eruption 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 had 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 were benignly neglected by the regulatory and supervisory authorities, they took advantage of the lack of regulatory oversight and expanded rapidly --lent 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, ITCs and other non-bank financial institutions became deeply troubled.

A number of financial institutions have been affected through merger, revoke of license, and liquidation in the efforts of financial restructuring. As a result, the number of financial institutions has been substantially reduced – from 2,104 at the end of 1997 to 1,561 at the end of 2001.

Table 1. Consolidation of Troubled Financial Institutions

(End 1997 – June 2001)

Type of Institutions	End of 97	Financial Restructuring						At Jun.2001
		License Revoked	Merger	Dissolution	Total	Percent %	New establishment	
Bank[1]	36	5	6	-	11	33.3	-	25
NBIFs	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	2,104	121	148	321	590	28.1	50	1564

source: Ministry of Finance and Economy(MOFE), 2001.8

The approach taken with respect to key issues in financial sector restructuring

[1] This includes specialized banks.

are summarized in Appendix Table 1. To support the financial restructuring 151 trillion Won of public funds has been injected as of November 2001. In detail, 99.4 trillion Won by issuing bonds, 28.8 trillion Won by the recovery of injected funds, and 22.4 trillion from other sources (Table 2).

Table 2. Public fund Injection

(1997.11-2001.10)

(trillion won)

Types	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 fund	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: Ministry of Finance and Economy (MOFE)

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 request rehabilitation plans from existing shareholders, which 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, a case-by-case one, 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 provided substantial public funds. Table 3 below shows the extent of government’s public fund injection for recapitalization and other purpose, both through direct equity injections and the purchase of subordinated debt[2].

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

[2] KDIC and KAMCO issued bonds which were guaranteed by the Government.

Table 3. Public Fund Injection by Type of Financial Institutions

(1997.11-2001.10)

(trillion won)

Type	Equity participation	Contributions	Deposit payoff	Asset purchase	NPLs purchase	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
Insurane 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: Ministry of Finance and Economy (MOFE)

Korea Deposit Insurance Corporation (KDIC) took the role of injecting funds for equity participation, deposit payoff, and purchasing of subordinated bonds, while Korea Asset Management Companies (KAMCO) played the role of purchasing NPLs (Table 4)

Table 4. Public Fund Injection by Source

(1997.11-2001.10)

(trillion won)

Type	Equity participation	Contributions	Deposit payoff	Asset purchase	NPLs purchase	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: Ministry of Finance and Economy (MOFE)

Resolving of non-performing assets

A key element of the financial sector restructuring strategy was the removal of the distressed assets into a centralized asset management company. Although KAMCO had existed prior to the crisis (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 a deposit guarantee. Then, in August 1998, KAMCO was reorganized with a view to strengthening its asset management and disposition capabilities as 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. KAMCO's resolution methods are shown in Appendix Table 2. Finally, Appendix Table 3 shows the actual resolution 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 institution were dissolved, merged and taken over as is summarized in Table 1.

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 banks were classified into three groups: banks with BIS ratios below 8 (12); banks with BIS ratios above 8 (13) and 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 end-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 the seven, 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 these, Boram Bank merged with Hana Bank—becoming 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 subject 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 banks, 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 the new financial holding company (Woori Financial Holding Company) in April 2001. Meanwhile, in November 2001, two sound banks Kookmin and Housing merged and became the largest bank in Korea (Kookmin Bank). Foreign investors (Carlyle consortium) took over another bank, Koram Bank, in January 2001. As result, currently there are only 16 commercial banks remained (Table 5).

Table 5. Commercial Bank Consolidation in Korea

	1993	1995	1997	1999	2000	2001.6
Number of Commercial Banks	24	25	27	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 international financial institutions' confidence in merchant banks, exacerbating the merchant banks' borrowing difficulties at home and abroad. The government finally suspended 14 insolvent merchant banks on December 1997. After that 18 merchant banks had their licenses revoked and the assets and liabilities of all the closed merchant banks were transferred to a bridge bank. Four merchant banks were merged, and four became subsidiaries of the KDIC. As of May of 2001, there are only three merchant banks survived out of 33 in total before the crisis.

c) The Investment Trust Companies

Among other non-bank financial institution, the investment and trust industry was perhaps the weakest and posed the most significant systemic risk. This 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 bottoming out of interest rates and gradual increase in bond yields since early 1999 resulted in mounting losses. Initially, the lack of transparency in the sector partly disguised the losses.

The ITC sector in Korea had suffered from several problems (see Cho, 2001). The three largest ITCs had been insolvent and 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 transfer was common, given the lax supervision. With declining interest rate, managers transferred higher-yielding paper to new funds in order to offer above market rates of return and hence attract new investment. ITCs and ITMCs held a significant proportion of the outstanding debt of the top 5 chaebols, including more than 80 percent of Daewoo's domestic bonds and commercial paper. 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 problem 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. In response, the Government implemented a number of steps to deal with the sector. These included temporary restriction 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. The Government also responded with 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 ITCs, controlled by the Hyundai group, was asked to carry out its own recapitalization without injection of public funds. They were also instructed to clean up bad assets in their trust funds through write-offs and transfers to sales units(i.e. securities firms). This stabilized the sector by the middle of 2000. In the meantime, funds flowed back from ITCs and IMTCs to the banking sector, and the corporate bond market has collapsed. In terms of resolution measures, by August 2000 six ITCs and ITMCs had their licenses revoked, one had been merged, and three had been dissolved and their business transferred to bigger ITCs.

d) Insurance and other NBFIs

A review of the life insurance sector revealed widespread fincial stress. Korea had a large life insurance sector that consisted 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 ofo 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 that were requested to submit rehabilitation plans. Seven of these companies had negative net worth; four small companies were closed and the remainder merged or sold. One large company, Korea Life, remains to be dealt with after initial attempts at finding a buyer have failed. The authorities are now seeking to rehabilitate it before making a further attempt to sell.[3]

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 5years. New loan classification and provisioning rules similar to those of commercial banks were designed and imposed effective September 2000, and investment guidelines have been tightened to curtail bank-like lending activities. The terms and pricing of policies was 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, 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 monority stakes. The bulk have now been closed, with shareholders and creditors absorbing significant losses.

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[3] 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 a Seoul Guarantee.

Strengthening of Regulatory Norms

The financial restructuring has involved improvements in the governance framework for banks, in prudential and regulatory norms, accounting, auditing and disclosure practices, this has also been supported by institutional strengthening for regulation and supervision (Table 6). The specific improvements in prudential regulations—a key element of the reforms—are as following.

Table 6. 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
- 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	- 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.	- Improvements in prudential regulations - Consolidated supervisory organization FSS, integrating previous Banking Supervisory Authority, Securities Supervision Board, Insurance Supervision Board and NBFI 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.

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 while 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 7 and 8).

Table 7. 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 8. 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 require the provisioning for losses in securities. Moreover, there are now new guidelines (effective end-1999) that are designed to take into account 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 provision for NPLs in Tier 2 capital.

The prudential regulation of foreign exchange operations by commercial banks has also been strengthened.

Table 9 below summarizes the changes in the prudential regulations for commercial and merchant banks.

Table 9. Improvements in Regulatory Norms

	Commercial banks		Merchant banks	
	1996	2002	1996	2002
Limits on ownership	4%	4%	None	

Level of minimum capital adequacy requirements	BIS 8%	BIS 8%	None	BIS 8%
Loan classification requirements (number of days 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 NBFI sector, regulatory and accounting standards of merchant banks and life insurance companies were brought in line with commercial banks. In the investment trust sector, all funds are now marked to market.

<u>Improving the Governance Structure of Banks and NBFIs</u>

There has been a big change in the governance structure of the banks after the crisis. Now the banks are required to have the majority of board members to be the outside directors. These outside directors are usually consisted of persons with various backgrounds, including the accountants, lawyers, academics, business, and foreign experts. The boards should have sub-committees including the audit committee, and risk management committee, each of which should be chaired by outside directors. This made the discussion in the board meeting more active than before, and made the decision making process more transparent. This also improved ‘check and balance’ between the board and management of the banks in important decision making.

II. Impact of Financial Restructuring

Financial crisis and restructuring brought by many changes in 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 recapitalization and resolving substantial amount of NPLs, the profitability of financial institutions has improved. Perhaps the most significant change in financial market is the change in the priority of the management of financial institutions toward profitability from asset maximization. After experiencing failures of mismanaged banks, bank's preference changed from high risk / high return assets to safe assets. Financial institutions also have adopted new risk management system, compensation system, internal organizations and etcs.

Corporate Financing Patterns [4]

With the breakdown of the expectation of 'too-big-to-fail,' the behavior of financial market participants has changed, which also affected financing and asset allocation behavior of corporate firms and financial institutions.

a) Increase in Internal Financing and Reduction in Debt Financing

There has been a significant increase in the share of internal financing in the post-crisis period. As table 10 shows, while internal financing had accounted for approximately 30% of total corporate financing prior to the crisis, the share increased close to 50% in the post-crisis period. This change seems to reflect the contraction in corporate investments within the increased uncertainty in the business environment and the presence of the excess capacity. But it also reflects the change in the financial market environment which put greater emphasis on the low debt ratio of corporate firms.

[4] The analysis of this part is based on Hahm(2002)

Table10. Structure of Corporate Financing

(Based upon annual flows)

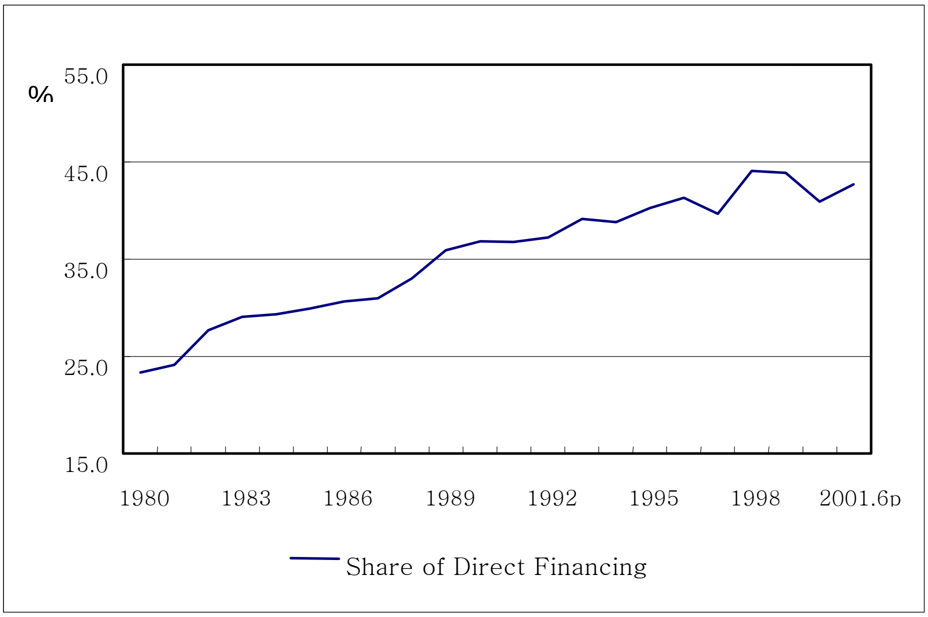
(%)

	1985	1990	1995	1998	1999	2000	2001
Total Financed	100	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	100
Indirect Finance	46.7	38.3	31.8	-56.6	4.1	17.1	2.7
Banks	29.4	15.7	14.9	2.5	29.2	35.2	2.6
NBFIs	17.3	22.6	16.9	-59.1	-25.0	-18.0	-0.3
Direct Finance	25.2	42.4	47.9	176.7	46.8	28.6	50.2
Stocks	10.8	14.2	17.5	52.5	82.6	35.6	14.9
Corporate Bonds	13.4	21.5	15.3	163.9	-5.3	-3.2	19.3
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	12.6
Foreign Borrowings	4.2	6.5	8.6	-33.7	24.1	23.7	0.5
Others[2)]	23.9	12.8	11.7	13.6	25.0	30.6	-2.4

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.

Figure 1 indicates that the share of direct financing decreased in 1997 and then increased dramatically in 1998 and decreased again in 2000. Table 10 shows the structure of corporate financing in terms of annual flows. The dramatic increase in the share of direct financing in 1998 was due to the increase in the share of corporate bonds. In fact, with the collapse of the merchant banking industry, the commercial paper market was almost paralyzed since 1997 and the commercial bank loans were also in net redemption as banks adjusted their portfolio structures in response to the BIS capital regulation.

Figure 1. Share of Direct Financing in Corporate Finance



Source: Hahm(2002)

Faced with the credit crunch, corporate firms - especially ailing *chaebols* issued large amount of corporate bonds to overcome liquidity problems. Investment trust companies (ITCs) played a central role in intermediating the fund-flows,[5] as was discussed above (Cho 2001, 2002).[6] The dominance of *chaebol* over the ITC industry aggravated distortions in fund-flows, and a large volume of funds was flowed into ailing *chaebols* such as Daewoo. Oh and Lee (2001) found that 43% of total corporate bonds issued in 1998 eventually became non-performing. Asymmetric approach to financial restructuring, approach i.e., 'bank-first, NBFIs-later' delayed resolutions of non-viable corporate firms and magnified the distressed debt although it helped to prevent too severe contraction of the economy in 1998 (Cho, 2001).

With rising uncertainty in the aftermath of Daewoo collapse in August 1999, fund-flows were reversed from ITCs to commercial banks. Marking to market system was introduced in July 2000 for ITC fund valuations, and practices of corporate bond guarantee

[5] The balance of ITC funds expanded sharply from 121 trillion won in June 1998 to 258 trillion won in April 1999.

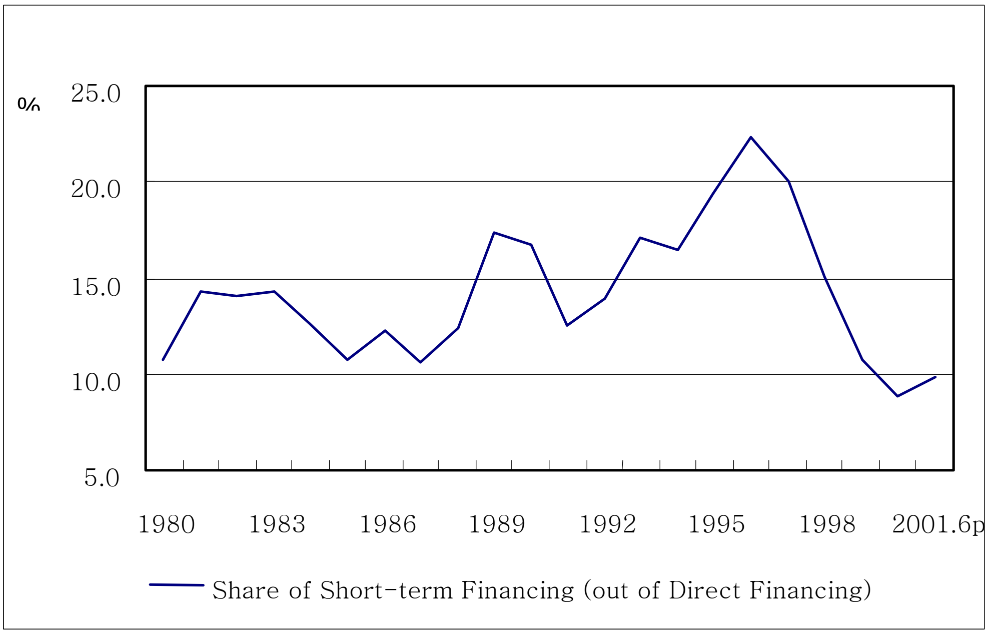
[6] The benchmark 3-year corporate bond yield decreased from 16% in June 1998 to 7% in April 1999. While the market interest rate was low, the ITCs could offer higher returns on their funds by mixing the pool of previously issued higher yield bonds with newly issued lower yield bonds. This practice was possible as the ITC funds were valued according to book values and not marked to market.

by commercial banks disappeared gradually. In 1999 for instance, more than 90% of total corporate bonds issued were without guarantees. The share of direct debt financing fell sharply as both the corporate bond and commercial paper markets got shrunk. The shrinkage in direct debt financing is a temporary phenomenon and must be interpreted as a correction of the distortion. The rapid expansion of corporate bond and commercial paper markets in the pre-crisis period at least partially reflect implicit government guarantee. The breakdown of the guarantee system implies that the risk 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.

b) Improvement in the Maturity Structure of Debt

The collapse of merchant banking industry and commercial paper markets implied that corporate firms could not roll over short-term debts. As firms repaid commercial papers with funds raised by issuing corporate bonds and stocks, the share of short-term debt out of total direct financing sharply decreased in the post-crisis period as shown in Figure 2.

Figure2. Share of Short-term Financing in Direct Financing

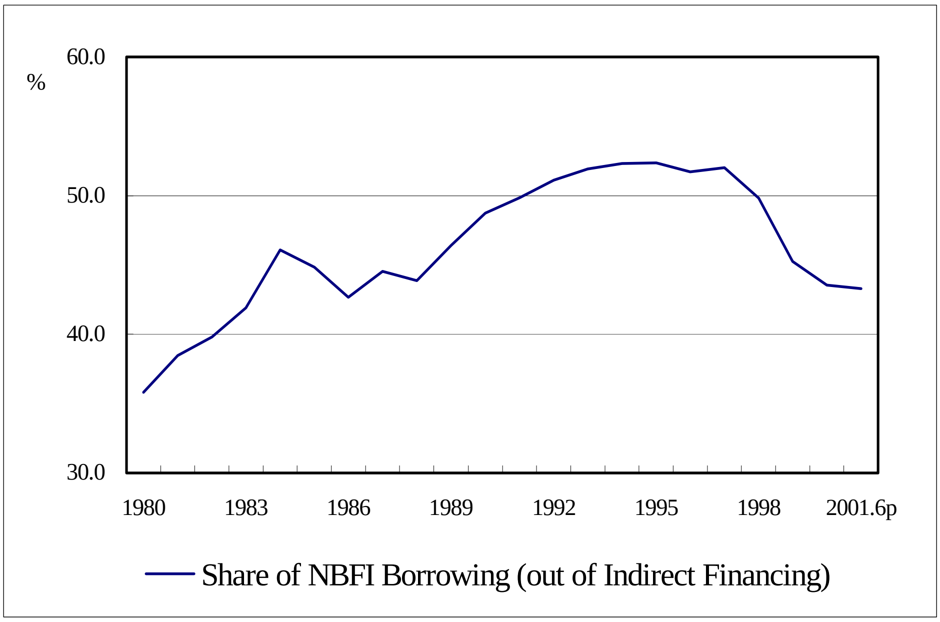


Source: Hahm(2002)

c) Increased Importance of Commercial Banks and Reduced Role of NBIFs

In the process of post-crisis restructuring, commercial banks regained its share in financial intermediation. As depositors and investors began to perceive risks associated with NBFI 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 3. The depositors' preference to safety also contributed to the regaining of commercial bank shares as banks began to recover capital adequacy through the government aided recapitalization program. Again the unusual expansion of the NBFIs during the 90s partially reflects the presence of implicit guarantee, and hence, the trend can also be understood as the transition toward a normalization of the financial intermediation.

Figure 3. Reduced NBFI's Role



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, the changes also reflect a fundamental and structural shift as the paradigm of competition and survival has changed. Table11 shows the trend in the composition of commercial bank domestic assets.

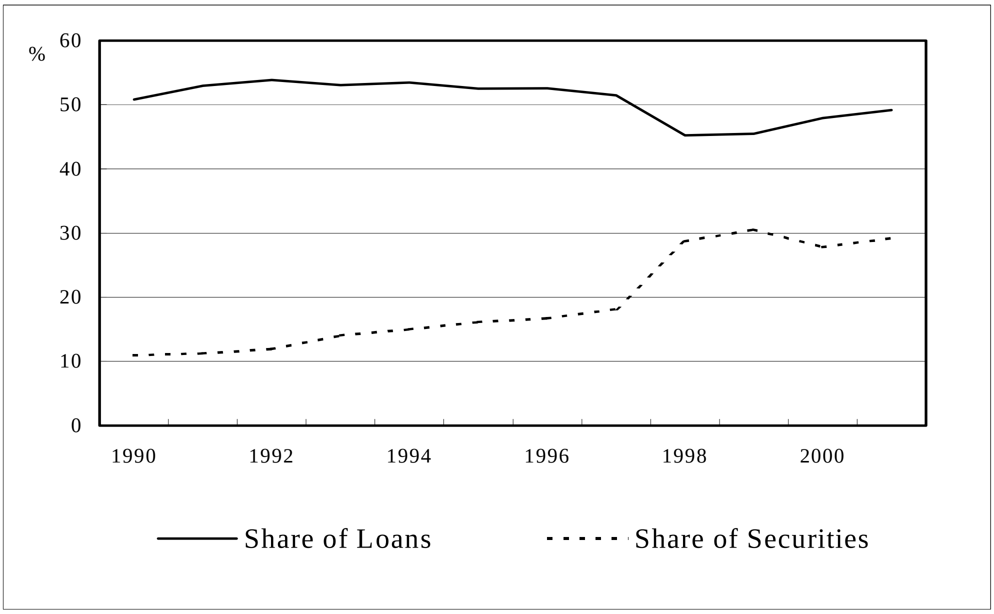
Table 11. Composition of Commercial Bank Domestic Assets

(%)

	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 4. Share of Securities and Loans in Banks' Domestic Assets



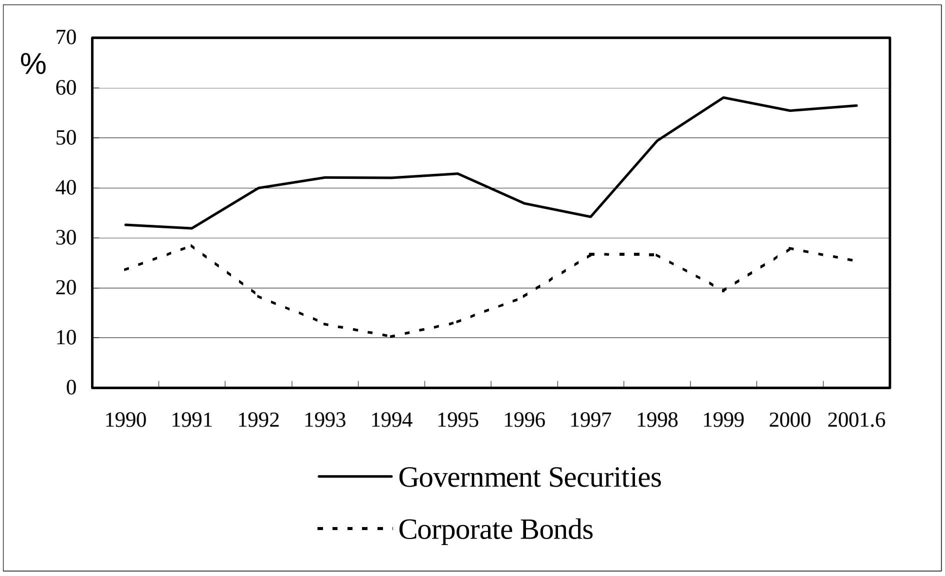
Source : Hahm(2002)

a) Increase in the Securities Holdings

The most significant change in the portfolio structure of commercial banks is the sharp rise in the share of securities, especially the government securities. As shown in Figure 4, the share of securities in the bank balance sheet has shown an increasing trend from early 90s due to the government policies to foster capital markets. However, the increase in the share of securities was accelerated in the post crisis period, which reflects commercial banks' preference to safer and liquid assets. It also reflects the holdings of investment securities related with corporate restructuring such as stocks and convertible bonds obtained in debt-equity swaps. The share of loans dropped substantially in 1998 and remained low in1999 as commercial banks tried to reduce exposure to credit risk. As the economy slowly recovered, the loan share began to rise gradually from 2000.

The government securities account for most of the increase in the securities holding of commercial banks. Figure 5 shows the share of government securities and corporate bonds in total securities held by commercial banks. Three factors seem to account for the increase in the share of government securities(Hahm,2002). First, as noted above, banks preferred safer assets in the face of uncertainty and converted private credits into government securities to prop up the BIS capital ratio. 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 marking to market 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, the recapitalization of commercial banks through issuing of the Korea Deposit Insurance Corporation (KDIC) bonds, also raised the share of government and public securities in the bank portfolio.

Figure 5. Share of Government Securities and Corporate Bonds in Total Securities Holding

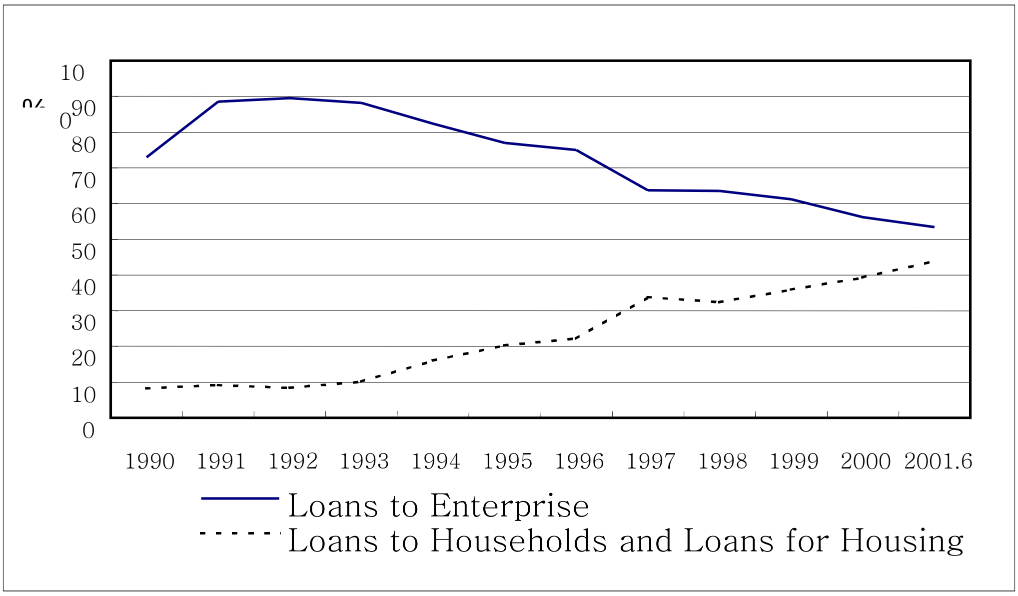


Source : Hahm (2002)

b) Rapid increase in the Share of Consumer Loans and Decrease in Corporate Loans

While the loan share in total commercial bank assets seems to slowly regain its pre-crisis level, there has been a fundamental change in the composition of loans. As can be seen in Figure 6, 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 and loans for housing approximately doubled from 20% in 1996 to 40% in 2000. This has futher increased in 2001. This trend seems to reflect at least two factors. The first factor is that there are limited numbers of good firms with low risk of lending. Good corporate firms with good credit risk found direct financing less costly and gradually left bank loan market. The second factor is the change in the risk appetite of commercial banks. As banks began to recognize the importance of credit risk management, they tried to reduce loan concentration by introducing exposure limits on corporate loans. Instead, commercial banks increasingly emphasized consumer loans as a new source of profit as consumer loans can be managed as a well-diversified portfolio of numerous small-sized loans, and hence, imply lower expected loss and credit risk compared to corporate loan portfolios (Hahm, 2002).

Figure 6. Share of Corporate vs. Consumer Loans in Total Loans



Source: Hahm(2002)

Banks' Capital Adequacy and Profitability

As a result of the restructuring, both capital adequacy and profitability of commercial banks have substantially improved. Table 12 shows 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 fell sharply to 5% level from 13.6% in 1999. The improvement in the bank balance sheet and asset quality is an outcome of the resolution of massive bad loans. If we admit 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 12. 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 7 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 is 35.6 trillion won while the pre-provision profits accumulated during the same period is only 20 trillion won. With continuous NPL resolution efforts and improving bank operation environment, the pre-provision profit began to exceed the amount of provision in 2001 and commercial banks began to record a positive profit.

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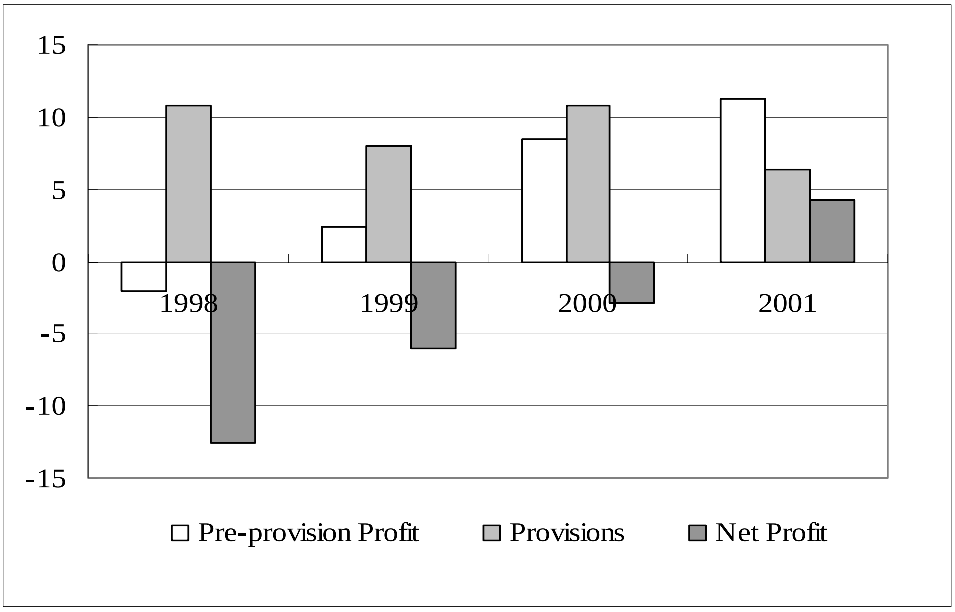
Figure 7. Pre-provision Profit, Provision and Net Profit of Commercial Banks



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 of Korean banks. The consolidation in the banking sector significantly lowered operating costs, and the provision requirements also fell sharply in 2001. In addition the loan-deposit spread has been maintained relatively high in recent years contributing to the improvement in net interest margins. However, there seems to be no much room for further improvement in the cost efficiency and loan-deposit spread, and therefore, further increases in bank profitability seem to be limited unless banks successfully restructure their business portfolios. 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 corporate firms still present potential risk to the health of bank balance sheet. The debt servicing ability of the corporate sector is still weak although it is improving. According to the estimate of the Bank of Korea, the percentage of manufacturing firms whose interest coverage is less than one was 29% in 2000.[7] Banks have accumulated a substantial amount of provisions against credit risks according to the forward-looking criteria (FLC) adopted from January 2000. However, many of the potentially problematic

[7] 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 financial sector).

firms are still classified as ‘precautionary’ - an asset category just above ‘substandard.’

<u>Ownership structure</u>

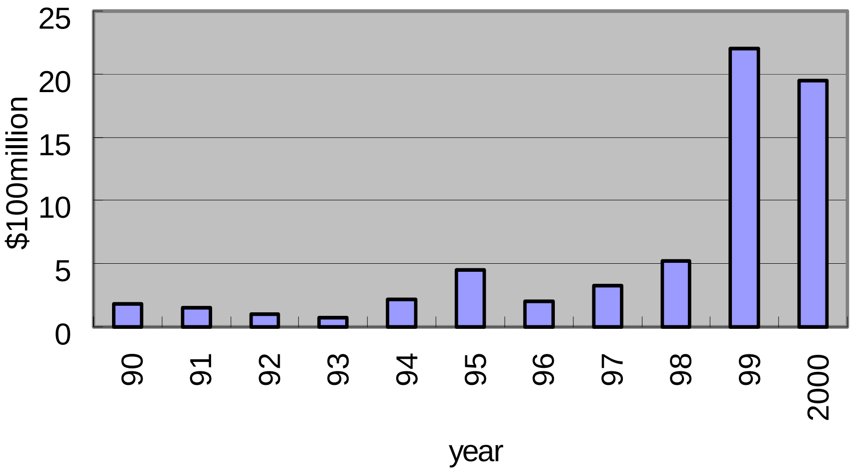
The financial restructuring after the crisis brought significant changes in the ownership structure of financial institutions in Korea. The two most significant changes are the increase of foreign ownership and the increase of government ownership.

a) Increased of Foreign Ownership

Foreign ownership in the financial institutions in Korea was completely liberalized after the crisis. Foreign banks and securities firms have been allowed to establish subsidiaries starting April 1998. 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. This increased substantially the foreign ownership in Korean financial institutions(Table 13).

From 1990 to 1997, foreign investment in Koreas’ financial sector was only $200 million. It reached $500million in 98 and $2 billion in 2000 (Figure 8).

Figure 8. Foreign investment in financial institutions



Source ; Oh & Kwon (2001)

Table13. 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%; 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%	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

source: Hwang &Shin

Table 14. Foreign investment in financial institutions

2000.8 ($ miilion)

Type	Foreign Investor	Foreign Capital
Korea Exchange Bank	Commerzbank AG	607
Korea First Bank	Newbridge Asia	442
Kookmin	Goldman Sachs +17 institusions	393
Housing & Commercial	ING Insurance International + 1	280
Hana	Allianz AG + 4	187
KorAm	Bank of America	102
Cheil Life Insurance	Atropos	476
Kookmin ITC	Canadian Imperial Bank of Commerce	175
SK Securities	Morgan Guaranty Co. of NY	166
KEB Credit Card	Olympus Capital KEC card + 2	119
Daehan MBC	E & E investment	100

source: Oh & Kwon(2001)

The number of financial institutions in which the foreigners are the largest shareholder is 26 at the end of March, 2001. Table 15 shows the foreign participation in the ownership of major Korean banks. Currently KFB and KorAm Bank are 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 15. Foreign Investment in Commercial Banks

(percent)

Bank	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 NewYork(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	Commerz Bank(32.39)	-	Commerz Bank(23.6)	58.8	Commerzbank 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 Fnance, The Leberalization of Banking Sector in Korea

b) Increased Government Ownership

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

Table 16. 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

<u>Increased concentration ratio in the banking sector</u>

As a result of successive mergers, the asset concentration ratio of top 5 banks has increased from 46.7% in 1997 to 59.5% in June 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 in 26.6% in U.S, 29.3% in Japan, 73.9% in Australia and 69.3% in France.

Table 17. Asset concentration ratio

		percent
	97	2000.6
Top 3	29.50%	40.20%
Top 5	46.70%	59.50%

Ⅲ. Concluding Remarks

The Korean experience of financial restructuring suggests the following tentative lessons.

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

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

Third, strengthening of the regulatory norms also contributed to improved capital adequacy ratio, asset quality, transparency of the management decisions and portfolio structure of banks and NBFIs.

Fourth, the improvement of the governance structure where the outside directors take the majority in the board have put a great pressure for the 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 and they are supposed to protect the interests of shareholders, including the minority shareholders. There has been a strong peer pressure—if one bank introduces a change in personnel and compensation policy, risk management, internal organization, the boards of other banks also put pressure on their management to come up with similar changes. Emergence of the two foreign controlled banks which adopts US style of bank management also contributed, although in a limited extent so far, to this change.

Fifth, the capital market opening which eliminated the limit of foreign investors' share in bank capital resulted in a situation where the majority share of most commercial banks (except nationalized banks) is owned by foreign institutional investors. As a result, banks' management decision has become very conscious of the foreign investors' response. In a sense, the 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 rate, wage, interest rates, and competition rules, provided a favorable environment for financial restructuring and improvement in the soundness of the financial sector. Although the causality works both ways, banking sector' health reflects the health of the real sector. The accumulation of massive NPLs in the financial sector in Korea in the past was not only due to poor credit decisions of banks but to misaligned relative prices and incentive structure in the economy which led to the wide spread insolvency of corporate firms. Without strong economic fundamentals, one can hardly expect strong financial sector.

However, the changes made in Korean financial sector after the crisis also have raised several questions. They are related to the fundamental questions on the economic development and the role of the financial sector. In many Asian countries, including Korea, the banking sector played the role of 'interlink' between the government and industrial firms in their pursuit of industrial policies. In the absence of capital market development, which provides long-term and risk capital to the industrial firms that had to compete with those of advanced economies with the economies of scale, banks in these countries financed the long-term and risky investment of industrial firms. By becoming the risk partner of the industrial sector, it helped rapid expansion of industrial base in these economies and 'catch-up' in the manufacturing sector, although the downside risk of this development approach had accumulated as the problems in the banking sector. The bank restructuring pushed the banks to change their priority toward safe assets and profit maximization. This led to a rapid shift of the bank lending from corporate sector to household sector and the collateralized housing loans. This rapid shift, while the development of long-term and risk capital market developments are still lagged, put a squeeze in corporate finance and investment, and hence, can limit the future economic growth potential in these economies.

In order to increase the corporate financing through the capital market, diverse investment products must be available to savers so that more 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 improving further the corporate governance, transparency in the corporate management, accountings in Korea as well as in other East Asian economies. 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.

Appendix

Appendix table 1. 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.

Appendix table 2. 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.

Appendix table 3. 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**

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