The Korean Banking Sector: Current Issues and Future Direction

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Executive Summary

This paper attempts to (i) describe the causes of the banking crisis and procedures of crisis resolution, (ii) summarize policy issues, and (iii) draw policy recommendations. It has four sections: (i) overview of the Korean banking sector, (ii) recent developments in the banking sector, (iii) policy issues, and (iv) policy recommendations. The first section shows how the banking sector has grown rapidly in the last 50 years and contributed significantly to the country's remarkable economic growth by mobilizing financial resources for business firms. However, selective credit allocation and prolonged interest control—the primary tools of economic development in Korea—have resulted in an inefficient and distorted financial system. Extensive Government involvement in the internal management of financial institutions has undermined the autonomy and accountability of management. Lack of an effective supervisory system resulted in excessive risk taking and moral-hazard problems plaguing the industry. The corporate bankruptcies of 1997 saddled the nation's commercial banks with extremely large nonperforming loans (NPLs), which led to the banking crisis.

The second section discusses (i) restructuring of the banking sector, (ii) resolution of NPLs and recapitalization of banks, (iii) reshaping of the institutional framework, (iv) deposit insurance system, (v) prudential regulation, and (vi) loan classification standards and provisioning requirements. Two critical questions regarding restructuring are (i) how to share the costs among the parties concerned and (ii) how to mobilize the necessary resources. The Government has made it clear that the cost of economic restructuring must be met primarily by the financial institutions so as to minimize both the burden on taxpayers and the risk of moral hazard. The Government will provide supplementary fiscal support for (i) the purchase of NPLs, (ii) recapitalization of viable institutions, and (iii) possible deposit payoffs in the event of closure, but only if the ailing institutions' self-rescue plans are successfully implemented. The necessary public funds are raised mainly by issuing bonds of the Korea Asset Management Corporation (KAMCO) and the Korea Deposit Insurance Corporation (KDIC), whose interest payments are absorbed by the budget. Along with restructuring, swift and prudent reform also requires an institutional framework to coordinate and monitor the reform process. The Financial Supervisory Commission (FSC) and the Ministry of Finance and Economy (MOFE) have made significant efforts to improve the institutional setting of the financial system in order to prevent another crisis. Crisis prevention demands a healthy domestic financial system. Necessary preconditions for such a financial system are (i) confidence of depositors, (ii) sound risk management, and (iii) prudential regulation. Since the crisis, the Government has established a system of prudential regulation and supervision for the financial sector. The new system includes (i) a strengthened prompt corrective action (PCA) scheme, (ii) a transparent accounting system with accurate and conservative portfolio valuation and classification, (iii) new banking sector disclosure items, (iv) enforcement of liquidity management relative to foreign exchange risk, and (v) transparent treatment of trust accounts.

The third section focuses on seven policy issues: (i) prudential regulation, (ii) resolving NPLs, (iii) deposit insurance system, (iv) enhancing competition, (v) improving financial governance, (vi) bank restructuring, and (vii) resolving the credit crunch. The Government has allocated significant resources to address each issue, especially after the crisis. However, the issues have not been resolved yet because most of them are long-term and institutional. The section discusses prudential regulation in detail as it is essential for preventing crises from recurring.

The fourth section recommends policies to solve the problems discussed in the previous section. The most important policy is on staffing regulatory organizations. KAMCO should sell NPLs within a limited time period. Private "bad" banks (those dealing

with bad loans) must be established in order to activate the distressed assets market. The deposit insurance system must charge according to risk. To enhance competition, the Government should significantly lower entry barriers. Ownership restrictions should be removed and board governance strengthened. The Government should also introduce transparent management of de facto State banks.

In sum, the crisis was amplified by (i) capacity-driven policy, (ii) loose market discipline, and (iii) lack of transparency. As a result, banks burdened with NPLs suffer from eroded capital. The Government established four basic principles for financial restructuring and completed the first round of restructuring at the end of September 1998. The second round of restructuring focuses on reengineering banking processes and empowering bankers. Banks are encouraged to implement best practices in the area of (i) corporate governance, (ii) strategy, (iii) structure, (iv) risk management, and (v) performance culture. The first round of restructuring was relatively easy because it was initiated by the International Monetary Fund (IMF), and its economic rationale overrode all political issues. However, many difficulties are expected in the second round of restructuring since IMF no longer has the power to impose restructuring, and it is more difficult to restructure software than hardware. The process will be a long one.

Overview

The Korean financial industry consists of three groups: (i) a central bank (BOK); (ii) deposit money banks, including commercial and specialized banks; and (iii) nonbank financial institutions (NBFIs), which include development, savings, investment, insurance, and other institutions.

The Korea Development Bank and Export-Import Bank of Korea engage in similar activities. Using Government funds, foreign capital, or funds raised from the issue of special debentures, they provide medium- and long-term loans or credit to key sectors such as (i) the export industry, (ii) parts and components industry, (iii) high-technology business, and (iv) research and development projects for developing new technologies.

Savings institutions consist of (i) trust accounts of banks, (ii) mutual savings and finance companies, (iii) credit unions, (iv) mutual credit facilities, (v) community credit cooperatives, and (vi) postal savings. They grant small loans with funds raised through time deposits.

Investment institutions act as financial intermediaries in the money and capital markets. They include (i) merchant banking corporations, (ii) securities investment trust companies, and (iii) the Korea Securities Finance Corporation.

Insurance institutions are composed of (i) domestic life insurance companies, (ii) joint ventures with foreign insurance companies, (iii) branches and subsidiaries of foreign life insurance companies, and (iv) Postal Life Insurance.

Other institutions are (i) securities companies; (ii) leasing companies; and (iii) installment credit companies, the last of which were launched in 1996. They function as supplementary financial institutions, but do not act as financial intermediaries.

Banks are either commercial or specialized. Commercial banks may be (i) nationwide banks, (ii) regional banks, or (iii) foreign bank branches.

As of end-1998, there were 12 nationwide commercial banks with 4,199 domestic branches (Table 1).[1] Among commercial banks, nationwide banks hold the largest assets: W517 trillion or 85 percent of total assets. The major sources of the banks' funds are bank deposits: (i) won deposits, (ii) certificates of deposits (CDs), and (iii) foreign currency deposits.

There are eight regional banks with total assets of W48 trillion (Table 1).[2] They are authorized to operate principally within their own province, but individual banks may open up to 10 branches in Seoul and 2 branches in each of the six major regional cities. The financial structure of a regional bank is similar to that

Table 1: **Capital and Assets of Deposit Money Banks, as of end-1998 (W billion)**

Bank	Paid-in Capital	Equity Capital	Deposits (including trust accounts)	Total Assets
Nationwide Banks				
Chohung	9,304	1,351	32,568	45,594
Hanvit	34,450	38,449	61,261	88,780
Korea First	16,000	485	25,085	34,949
Seoul	16,000	2,655	19,806	29,977
Korea Exchange	11,750	16,636	34,177	52,200
Kookmin	13,815	31,800	56,397	87,430
Korea Housing	7,427	13,986	39,339	55,099
Shinhan	11,690	24,135	29,178	44,515
KorAm	7,483	9,752	17,556	26,466
Hana[a]	3,496	8,633	21,064	27,825
Boram[a]	1,756	721	12,256	15,846
Peace	2,200	(883)	6,180	8,426
Subtotal	135,371	147,720	354,867	517,106
Regional Banks				
Daegu	5,021	5,055	9,404	12,799
Pusan	3,252	2,649	8,372	10,999
Kwangju	2,800	1,919	5,157	7,027
Cheju	550	528	1,161	1,465
Jeonbuk	1,153	1,243	2,423	3,212
Kangwon	250	(1,905)	2,249	3,078
Kyongnam	2,470	3,053	5,022	7,139
Chungbuk	250	(698)	1,795	2,255
Subtotal	15,746	11,844	35,583	47,974
Total	151,117	159,564	390,450	565,080

( ) = negative values are enclosed in parentheses.
[a] Hana Bank and Boram Bank were merged in January 1999.
Source: Financial Supervisory Service, 1999.

of a nationwide commercial bank, except that the proportion of deposits in foreign currencies is smaller.

Fifty-one foreign banks were operating in the country as of end-1998. Foreign banks have been more successful in wholesale than retail banking due to their comparative advantage. They hold equities equal to about 15 percent of their total assets or about W41.3 trillion.

There are four specialized banks: (i) Industrial Bank of Korea, which finances small and medium-sized enterprises; (ii) the credit and banking sector of the National Agricultural Cooperative Federation; (iii) the National Federation of Fisheries Cooperatives'; and (iv) the National Livestock Cooperatives Federation's bank. The Government uses them mainly as a direct conduit to control the flow of funds to various economic sectors to carry out its industrial policy. However, the banks also engage in commercial banking activities, which have considerably increased.

The banking sector has grown rapidly in the last 50 years and contributed significantly to the country's remarkable economic growth by mobilizing financial resources for business firms in the 1960s and 1970s, when it dominated the financial market. In the early 1970s, however, the Government established various NBFIs and developed the securities market to diversify the sources of investment funds and to induce the unorganized curb market to enter the organized financial market. NBFIs have grown rapidly owing to their higher interest rates and greater degree of managerial autonomy. As a result, the banking sector's share of deposits decreased from 51 percent in 1975 to about 20 percent in 1997, while that of nonbanks increased sharply (Table 2).

The banking sector suffered due to inefficient internal management and was exposed to moral hazard. The Government-led growth strategy since the early 1960s has involved routine Government intervention in the financial sector, preventing the development of market discipline. Selective credit allocation and prolonged interest control—the primary tools of the country's economic development—resulted in an inefficient and distorted financial system. Segmentation within the financial industry as well as high entry barriers have limited financial institutions' initiative and innovation. Extensive Government involvement in the internal management of financial institutions has undermined their autonomy and accountability. Its ineffective supervisory system allowed excessive risk taking by financial institutions.

The Government has intermittently attempted to overhaul the outmoded financial system into one that is market-oriented.[3] However, its reform efforts often faced political barriers, and their scope was too limited to eradicate the distortions deeply rooted in the financial sector.

In particular, moral hazard of the implicit Government guarantee was so severe as to be an important source of the financial crisis. Commercial and merchant banks have long operated under the guarantee, although it is not legally codified. Few believed that the Government would allow the banks to fail. The guarantee encouraged domestic financial institutions to borrow more funds abroad and invest in riskier projects than they otherwise would, confident that the Government would bail them out if they incurred serious losses. The financial system's infrastructure was inadequate by international standards of transparency of public and private financial institutions, bank capital requirements, banking supervision, and bankruptcy procedures.

In the absence of proper prudential supervision, the guarantee created moral hazard, reducing the incentive to assess potential projects for risk. The economy as a whole ended up investing too much and taking on excessive risk.

Even before the onset of the currency crisis, the financial system was already in dire straits because of excessive lending to large conglomerates, many of which were already bankrupt.[4] Financial institutions' nonperforming loans (NPLs) amounted to W28.5 trillion as of September 1997, or 6.3 percent of all outstanding loans. Merchant banks held an additional W3.9 trillion of bad loans as of October 1997, or 2.9 percent of all outstanding loans.

Table 2: Deposits of Various Financial Sectors

	Amount (W billion)					Percent Share				
			Capital Market[a]					Capital Market[a]		
Year	Banks	Nonbanks[b]	Equity	Bond	Total	Banks	Nonbanks[b]	Equity	Bond	Total
1975	1,944	912	916	52	3,824	50.8	23.9	24.0	1.4	100.0
1980	8,577	7,062	2,527	1,649	19,815	43.3	35.6	12.8	8.3	100.0
1985	21,327	31,494	6,570	7,263	66,654	32.0	47.3	9.9	10.9	100.0
1990	59,237	136,498	79,020	22,068	296,823	20.0	46.0	26.6	7.4	100.0
1992	82,677	212,332	84,712	32,697	412,418	20.1	51.5	20.5	7.9	100.0
1995	144,494	433,505	141,151	56,456	775,606	18.6	55.9	18.2	7.3	100.0
1997	192,172	595,338	70,989	86,024	944,523	20.4	63.0	7.5	9.1	100.0
1998	233,253	661,227	137,799	119,435	1,151,714	20.3	57.4	12.0	10.4	100.0

[a] Based on the total market value of stocks and b onds.
[b] Include trust accounts of banks, insurance companies, mutual savings and finance companies, credit unions, securities investment trust companies, etc.
Source : Ministry of Finance and Economy, *Financial Statistics Bulletin*, various issues.

The bankruptcies saddled commercial banks with extremely large NPLs: 14.9 percent of total loans by December 1997, compared with 3.9 percent in December 1996. By end-1997, commercial banks held 82.5 percent of all NPLs among banks, and 78 percent among financial institutions, making them highly vulnerable to the financial crisis. Moreover, only 12 of 26 commercial banks had satisfied the required 8 percent capital adequacy ratio (CAR).

Moral hazard affected foreign financial institutions' lending to Korean banks and other financial institutions. Since foreign banks were aware of the Government guarantee, they did not see the need to conduct careful credit analyses of Korean financial institutions and firms to which they were lending vast sums of money. When the crisis began, however, foreign banks and investors abruptly withdrew their investments, making no serious effort to reschedule their loans to troubled Korean banks.

Recently, the banking industry has been changing substantially under the comprehensive financial reform program agreed upon by the Government and the International Monetary Fund (IMF). For example, the five commercial banks which the Financial and Supervisory Commission (FSC) evaluated on 29 June 1998 as unviable were ordered to be liquidated and to have their good assets and liabilities transferred to stronger banks under a purchase and assumption (P&A) arrangement. Commercial Bank and Hanil Bank, which were conditionally approved for restructuring by FSC were merged. Korea First Bank and Seoul Bank, which proved insolvent in 1997 and were thereafter recapitalized by the Government, are to be sold to foreign banks.

In the early 1990s, the Government abolished most regulations related to the internal management of banks. Only a few remain, including the following:

- Commercial banks are prohibited to issue financial debentures in excess of their capital.
- They are not allowed to invest in real estate necessary for the conduct of their business in excess of 40 percent of their equity capital.
- They are not permitted to grant loans in excess of their deposits.
- They are required to have liquid assets in excess of 30 percent of liquid liabilities.
- Total amount of loans granted to a single individual or a single business group is limited to 45 percent of a bank's equity capital.
- Total amount of investment in securities may not exceed the size of a bank's equity capital.
- Regional commercial banks are required to lend to small and medium-size enterprises at least 60 percent of the increments of their loans; nationwide commercial banks must lend 45 percent.

Most regulations concerning foreign banks were abolished in the early 1990s. Regulations relating to domestic banks are now applied to foreign banks.

Korean banks' low profitability makes it difficult for them to recover on their own. Plans to enhance profit must be directed toward the following benchmarks: (i) return on asset—1 percent, (ii) return on equity—15 percent, and (iii) efficiency ratio—under 60 percent.[5] At the same time, the central bank needs to maintain a sufficiently large difference between the long-term and short-term interest rates so that banks can keep a sustainable net interest margin.

In order for banks to become competitive, their managers must keep the interests of shareholders in mind and maximize the banks' value. Corporate governance should be strengthened to allow managers to minimize agency problems. Only profitable banks can be competitive, and only productive banks can be profitable. Banks have slashed the number of their branches and employees. They will be profitable if they succeed in managing their bad assets.

Recent Developments

Restructuring of the Banking Sector

On 14 April 1998, the Government announced the basic framework of financial sector restructuring.[6]

Prior to this, it was occupied with currency crisis management and resorted to quick-fix and partial measures to cure ailing institutions such as the merchant banks, Korea First Bank, and Seoul Bank. It was too busy to design a consistent and extensive restructuring program.

The basic functions of financial restructuring can be summarized as follows:

- Stabilize financial markets through swift and extensive reform.
- Provide timely and sufficient fiscal support.
- Set transparent principles for accountability among parties concerned.
- Conform with internationally accepted standards.

The first and second components aim at normalizing the financial system as soon as possible through swift and far-reaching reform with extensive fiscal support. They are based on other countries' experiences that delayed action increases the cost of restructuring and decreases the probability of success. Specifically, nonviable financial institutions must be distinguished from viable ones. Once this is done, the Government can act swiftly to bolster viable institutions through equity participation and the purchase of NPLs. To qualify for this assistance, banks are required to downsize their branch network and lay off employees; fiscal support will be linked to their efforts to minimize the taxpayers' burden and eliminate moral hazard. Institutions judged as "nonviable" will be closed in order to stabilize the financial market and protect depositors and creditors from defaults. The third element stresses the need for clear burden-sharing rules in dealing with insolvent institutions. The fourth ensures that structural reforms will be made in accordance with market principles and international standards and practices.

Financial sector restructuring will be pursued in two phases:

- The banking sector will be normalized before NBFIs.
- Reform of NBFIs will proceed depending on the financial market situation.

FSC announced the first financial sector restructuring schedule on 14 April and the revised one on 19 June 1998. The first round of restructuring of commercial banks was completed by end-September 1998.

Most financial institutions were reviewed according to schedule and subjected to corrective action. Table 3 presents a summary of financial restructuring as of end-August 1999.

Even though all the institutions went through the same appraisal process, conditionally approved banks were treated differently from nonbanks. Fiscal support for banks was provided only when rehabilitation plans were approved by FSC and implemented. Voluntary mergers of banks and entry of foreign investment were encouraged through support measures

Table 3: Summary of Financial Restructuring, as of end-August 1999

Financial Institution	Number (as of end-1997)	License Revoked	Merged	Suspended	Liquidated	Total
Banks	33	5	4	0	0	9
Merchant Banks	30	17	2	0	0	19
Securities Companies	36	5	0	0	1	6
Insurance Companies	50	4	1	0	0	5
Investment Trust Companies	31	2	0	0	5	7
Mutual Savings and Finance Companies	231	25	5	11	7	48
Credit Unions	1,666	1	44	30	131	206
Leasing Companies	25	0	0	0	5	5
Total	2,102	59	56	41	149	305

Source: Ministry of Finance and Economy.

such as Korea Asset Management Corporation's (KAMCO's) purchase of NPLs or recapitalization by Korea Deposit Insurance Corporation (KDIC) in order to reverse the deterioration of the Bank for International Settlements (BIS) CAR upon acquisition of a troubled bank.

The general restructuring strategy was strictly applied to 26 commercial banks (16 nationwide banks and 10 regional banks). The restructuring process proceeded as follows:

- The Government recapitalized Korea First Bank and Seoul Bank, which proved insolvent in 1997 before the restructuring blueprint was ready in April 1998. On 30 January 1998, the Government and KDIC invested W1.5 trillion in each bank, after reducing their paid-in capital from W820 billion to W100 billion each. In December 1998 and February 1999, the Government signed a memorandum of understanding with Newbridge Capital and Hong Kong and Shanghai Bank for the sale of Korea First Bank and Seoul Bank, respectively.
- FSC examined the capital adequacy of the other banks in December 1997. Twelve banks fell short of the BIS CAR of 8 percent and were required to submit self-rehabilitation plans by 30 April 1998. The other 12 banks satisfied the BIS CAR upon completion of due-diligence reviews by the end of August. Troubled banks are subject to forceful corrective action.
- Accounting firms conducted due-diligence reviews of the banks from 1 May to 8 June 1998 in accord-ance with the internationally accepted criteria agreed upon with the World Bank.[7] The review results were much worse than expected (Table 4). A comparison of the banks' reported NPL ratios as of December 1997 with the ratios from the due-diligence review, using the numbers as of March 1998, indicates how distorted the officially an-nounced bank data are, even after considering that a stricter standard in evaluating loans and other assets was applied and a three-month difference between the measurements existed.

Table 4: Results of Due Diligence Reviews on 12 Undercapitalized Banks

	Bank Reports (as of December 1997)			Assessment Results[a] (as of March 1998)				
	Asset (W billion)	NPL[b] (W billion)	NPL Ratio (%)	Adjusted Asset (W billion)	BIS Ratio (%)	NPL[b] (W billion)	NPL Ratio (%)	Rating[c]
Chohung	55,600	2,623	7.0	44,280	1.5	6,926	19.2	C
Commercial	48,552	1,451	4.8	38,004	1.8	7,249	24.3	C
Hanil	53,853	1,324	3.6	43,508	4.5	6,772	20.2	C
Korea Exchange	62,319	2,518	5.7	47,174	2.1	10,792	28.6	C
Chung Chong	4,829	425	12.5	3,770	(6.0)	1,619	36.3	D
Kyungki	8,894	590	9.7	7,239	(9.6)	2,862	49.0	D
Dongwha	12,968	602	7.9	9,556	(3.7)	2,254	28.5	D
Dongnam	10,055	293	5.7	7,115	(5.8)	1,118	20.9	D
Daedong	7,715	487	9.6	5,563	(6.8)	1,735	34.1	D
Peace	8,359	228	4.5	6,517	(1.6)	602	12.9	C
Kangwon	3,869	443	18.3	2,969	(16.0)	1,034	45.8	C[d]
Chungbuk	3,139	249	11.3	2,487	(5.5)	801	28.5	C
Total	280,152	11,233		218,182		43,764		

( ) = negative values are enclosed in parentheses.
BIS = Bank for International Settlements, NPL = nonperforming loan.
[a] Assessment is based on new criteria applied to numbers as of March 1998, while the numbers as of December 1997 are based on the old Office of Bank Supervision (OBS) criteria.
[b] NPL: Precautionary and lower.
[c] Ratings assigned by FSC (C: conditionally approved; D: disapproved).
[d] Despite having the second highest NPL ratio, Kangwon Bank got a conditional approval when its merger with Hyundai Merchant Bank was announced. Both are affiliated companies of the Hyundai Group.
Sources: FSC Press release, 1 July 1998; bank statistics.

- The 12-member Bank Appraisal Committee evaluated the rehabilitation plans from 20 to 27 June 1998, and submitted its suggestion to FSC on 28 June.[8] The items reviewed were (i) capital adequacy, (ii) recapitalization plan, (iii) asset quality classification, (iv) reduction plan for risky assets, (v) cost reduction scheme, and (vi) management improvement plan, among others.
- With input from the Bank Appraisal Committee, on 29 June 1998, FSC evaluated the prospects for viability and arrived at either an "approval," "conditional approval," or "disapproval" classification for each bank.[9] None of the banks received "approval." FSC's final decisions were (a) "conditional approval" for seven banks and (b) "disapproval" of five banks.
- The seven conditionally approved banks were ordered to submit by end-July revised implementation plans containing management reforms and recapitalization plans, including foreign fund inducement and bank merger. The plans are reviewed quarterly. If the implementation plans are disapproved, a mandatory merger or transfer of business order is to be imposed. Commercial Bank and Hanil Bank have decided to merge. The other banks are undergoing self-rehabilitation.
- The five disapproved banks were liquidated and their good assets and liabilities were transferred to relatively stronger banks under a P&A arrangement.[10] The P&A order was a historical event as no Korean bank had ever been closed before, and it gave a clear signal that financial institutions would no longer enjoy unconditional protection.
- However, a few conditionally approved banks were too big to be allowed to fail. Thus, the Korea First Bank and the Seoul Bank were permitted to continue their operations. The five closed banks' assets constituted only 7.3 percent of the 12 undercapitalized banks' total assets.

Four bank mergers were completed as of end-1999, encouraged by FSC's promise to purchase NPLs or to support recapitalization: (i) Hanvit Bank (Commercial Bank of Korea and Hanil Bank merger); (ii) Hana Bank (Hana Bank and Boram Bank merger); (iii) Kookmin Bank (Kookmin Bank and Korea Long-term Credit Bank merger); and (iv) Chohung Bank (Chohung Bank, Chungbuk Bank, Kangwon Bank, and Hyundai Merchant Bank merger).

Resolution of Nonperforming Loans and Recapitalization of Banks

There are two critical questions regarding economic restructuring: (i) how to share the costs among the parties concerned and (ii) how to mobilize the necessary resources. The Government made it clear that the cost of economic restructuring must be met primarily by the financial institutions to minimize both the burden on taxpayers and the risk of moral hazard. Its fiscal support will be provided only to (i) supplement the institutions' own restructuring and financing plans and (ii) purchase NPLs, recapitalize viable institutions, and pay off deposits, but only if the self-rescue plans of ailing institutions are successfully implemented. The needed resources are raised mainly by selling KAMCO and KDIC bonds, whose interest payments are absorbed by the budget.

NONPERFORMING LOAN ESTIMATES

The main task of financial sector restructuring is the disposal of NPLs. As of the end of March 1998, total NPLs of all financial institutions amounted to W112 trillion, consisting of W87 trillion for banks and W25 trillion for nonbanks, which are the basis for the financial restructuring plan. These include "precautionary" loans of W55 trillion (Table 5).

The Government targeted W100 trillion worth of NPLs for immediate disposal as of March 1998, including the core NPLs, bad loans, and a portion of the precautionary loans that had turned bad. The estimated total market value of NPLs was only 50 percent of their book value. Therefore, the realized loss borne by financial institutions will be approxi-

Table 5: NPLs of Financial Institutions (W trillion)

Loan Classification	March 1998 Banks	March 1998 All FIs	June 1998 Banks	June 1998 All FIs	September 1998 Banks	September 1998 All FIs	December 1998 Banks	December 1998 All FIs
Bad loans[a]	38.9	56.5	40.0	63.5	35.0	64.0	33.6	60.2
Precautionary loans[b]	48.3	55.5	60.9	72.5	63.6	71.2	63.4	70.9
Total NPLs[c]	87.2	112.0	100.9	136.0	98.6	135.2	97.0	131.1

FIs = financial institutions, NPL = nonperforming loan.
[a] Sum of estimated loss, doubtful and substandard loans.
[b] Collateralized loans with three to six months' interest payments in arrears. The loan classification standards were changed on 1 July 1998: (i) substandard or lower—interest payments in arrears from six to over three months and (ii) precautionary—from three to six months to one to three months interest in arrears.
[c] These numbers do not include NPLs purchased by KAMCO.
Source: Financial Supervisory Service.

mately W50 trillion, which will eventually result in the erosion of their capital base. The rest of the NPLs will be resolved through Government fiscal support.

The targeted W100 trillion worth of NPLs are to be disposed of in two ways:

- Financial institutions will dispose of half by either selling off collateral or calling in loans.
- KAMCO will purchase the remaining half at an estimated market price of 50 percent of book value. In accordance with the IMF agreement, KAMCO is to dispose only of NPLs of financial institutions whose rehabilitation plans are approved by FSC.

As of December 1998, total NPLs amounted to W131 trillion, with bad loans at W60 trillion and precautionary loans at W71 trillion. The Government asserted that the new levels were within a reasonable range and that it was not necessary to change the restructuring plan. Nonetheless, due to the tightened loan classification standards effective 1 July 1998, a substantial portion of precautionary loans was downgraded to the "substandard" category, thereby increasing bad loans to W65.4 trillion at the end of March 1999. Furthermore, the quality of some of the precautionary loans may deteriorate over the course of the ongoing corporate restructuring process. On the other hand, the corporate workouts may significantly reduce the amount of precautionary loans. Moreover, FSC's strict supervision will diminish the likelihood that new NPLs will develop.

FISCAL SUPPORT FOR FINANCIAL RESTRUCTURING

The first round of financial sector restructuring, which ended on 30 September 1998, aimed at revitalizing the troubled banks. As noted before, the Government's basic principles for fiscal support are the following:

- It will not support financial institutions unless they exert appropriate self-rehabilitation efforts and practice fair loss sharing among concerned parties.[11]
- Fiscal support should be sufficient to make troubled financial institutions solvent.

On 20 May 1998, the Government announced it would spend W64 trillion until June 1999 to facilitate financial restructuring. This amount is approximately 15.2 percent of the 1997 GDP of W421 trillion,[12] which is burdensome compared to that of other countries that have experienced a similar financial crisis.[13] Of the W64 trillion, W32.5 trillion are for the purchase of NPLs while W31.5 trillion are for recapitalization and deposit payment of ailing institutions. By end-1998, W40.9 trillion were injected into the banking sector, of which W19.4 trillion were spent in the last three days of September alone, presumably to meet the deadline for completing the first round of bank restructuring.

As shown in Table 6, W44 trillion worth of bad loans were purchased from banks, merchant banks, and surety insurance companies with the W19.9 trillion KAMCO bonds by end-1998, amounting to 45

Table 6: Schedule of Fiscal Support (W trillion)

Item	Nov 1997–Aug 1998	Sep 1998	Oct-Dec 1998[a]	Total	Remaining Fund
Book Value of Nonperforming Loans[b]	16.0	23.0	5.0	44.0	27.0
Fiscal Support:					
Purchase of Nonperforming Loans[b]	8.6[c]	9.1	2.2	19.9	12.6
Capital Injection	1.5[d]	3.3	1.5	6.3	10.5[e]
Loss Coverage	6.6[f]	7.0	1.1	14.7	
Total	16.7	19.4	4.8	40.9	23.1

[a] For the second round of restructuring of special banks, a few financially sound banks, merchant banks, securities companies, and trust companies.
[b] Nonperforming Loans are substandard or lower loans.
[c] Purchases from 30 commercial and specialized banks, 30 merchant banks, and 2 surety insurance companies.
[d] Capital injection into Seoul Bank and Korea First Bank.
[e] Includes both capital injection and loss coverage.
[f] Deposit payment for suspended merchant banks, mutual savings and finance companies, and credit unions.
Source: Financial Supervisory Commission.

percent of the book value. About W25 trillion to W30 trillion worth of NPLs will be purchased from specialized banks, financially sound banks, merchant banks, securities companies, and mutual savings and finance companies for W12.6 trillion in 1999. Additional NPLs in the future will also be purchased by KAMCO.

Banks that acquired ailing banks or merged with other banks received support for recapitalization and loss compensation. KAMCO purchased the NPLs of five acquired and acquiring banks, and injected capital into them to prevent the deterioration of the acquiring banks' BIS CAR. New banks created by the merger of a sound bank and troubled bank were given enough fresh capital to bring their BIS CAR up to standards of sound banks. New banks resulting from a merger between two troubled banks were injected with capital sufficient to bring their BIS CAR up to 10 percent. The total support for recapitalization and loss coverage up to December 1998 amounted to W6.3 trillion and W14.7 trillion, respectively.

The Government used public bonds to finance the projected fiscal support. KAMCO issued W32.5 trillion worth of bonds to purchase NPLs amounting to over W50 trillion. KDIC issued W31.5 trillion worth of bonds for equity participation and for compensation of the differential between liabilities and assets. All the issued public bonds were provided "in kind" to the ailing institutions rather than sold on the market in order to minimize a possible crowding-out effect. Considering that banks have enough liquidity after the financial crisis and that BIS risk weight of public bonds is nil, not many bondholders are expected to cash in. The Government guarantees the bond issues and will bear interest costs, which were estimated to be W3.6 trillion for 1998, and W8 trillion to W9 trillion for 1999, but are expected to decrease greatly with a sharp drop in interest rates.

Most of the fiscal support is expected to be recouped through (i) sale of collateralized assets, (ii) divestment of acquired equity shares of financial institutions, and (iii) liquidation of insolvent financial institutions. Thus the burden on taxpayers will be limited to the interest costs related to public bond issues, which will correspondingly decline over time. In addition, asset-backed securities will be issued against collateral to give KAMCO flexibility in its financing of the disposal of NPLs.[14]

Institutions eligible for NPL purchase are those planning a merger or whose rehabilitation plans have been approved by FSC. These included (i) five resolved and five acquiring banks, (ii) four merged banks, (iii) nine banks under a self-rehabilitation plan, and (iv) two merged surety insurance companies. Eligible bad loans are those classified as "substandard," with interest payments of more than three months in arrears.

Reshaping the Institutional Framework

Financial sector restructuring is crucial for economic recovery. Swift and prudent reform requires an institutional framework to coordinate and monitor the reform process. To this end, major financial reform bills were passed to provide a legal basis for required institutional reforms.

On 29 December 1997, the National Assembly passed a package of 13 long-awaited financial reform bills designed to facilitate financial restructuring, improve prudential regulation, and accelerate capital market liberalization. The package included bills to correct the financial market's built-in inefficiency by (i) enhancing the independence of the central bank, (ii) establishing a neutral consolidated FSC, and (iii) liberalizing foreign ownership of Korean securities. Measures (i) and (ii) implied a shift from a financial policymaking structure monopolized by MOFE to a decentralized one with a check-and-balance system. The passage of the package signaled the end of Government-controlled financial resource allocation and provided the legal basis for financial reforms.

THE CENTRAL BANK

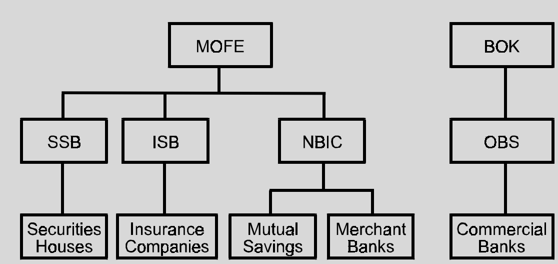
The new Bank of Korea Act substantially enhances the independence of the central bank. The BOK governor, previously appointed by MOFE, is now appointed by the President upon the recommendation of the State Council. Moreover, the governor, instead of the minister of finance and economy, now chairs the Monetary Board, which is the supreme policymaking body of BOK. The previous objectives of the central bank—maintaining the stability of currency value and the soundness of the banking and credit system—are replaced by a new objective of maintaining price stability. Consequently, the Monetary Board is now expected to carry out more advanced central banking for the unified goal of price stability. Responsibility for supervising the banking industry has been transferred to FSC.

A CONSOLIDATED SUPERVISORY BODY: THE FINANCIAL SUPERVISORY COMMISSION AND THE FINANCIAL SUPERVISORY SERVICE

An informal and close relationship between financial institutions and regulatory organizations developed due to excessive Government influence. The Government has a significant regulatory role in its own right and therefore has control over regulatory agencies. It also often appoints the management of financial institutions from the ranks of former regulators. This process, known as parachute appointment, has hindered the development of a proper independent regulatory system.[15] Although parachute appointment is less prevalent in the 1990s than it was in the 1980s, it is still an issue of great concern, especially in the nonbanking industry. Regardless of the eventual postcrisis regulatory structure, this appointment method should be stopped to enable regulators to do their job independently.

Before the crisis, regulatory responsibility was divided between BOK and MOFE, with BOK supervising commercial banks and MOFE supervising NBFIs.[16] Figure 1 shows the regulatory structure before the crisis.

Figure 1: Precrisis Regulatory Structure



BOK = Bank of Korea, ISB = Insurance Supervisory Board, MOFE = Ministry of Finance and Economy, NBIC = Nonbank Insurance Corporation, OBS = Office of Bank Supervision, SSB = Securities Supervisory Board.

The dual nature of the regulatory structure and inadequate coordination resulted in inconsistent and ineffective supervision. For example, the Office of Bank Supervision (OBS), which was an internal organization of BOK, supervised commercial banks. The trust business of commercial banks, however, was under the supervision of MOFE, which also had the authority to grant and revoke bank licenses. Lack of coordination led both BOK and MOFE to neglect corporate governance of banks. Shareholders and depositors were not subject to market discipline. Due to the lack of corporate governance, the profitability of Korean banks was quite low even before the crisis.[17] Low profitability certainly contributed to the banking crisis.

Merchant banks were regulated and supervised solely by MOFE. Since MOFE had fewer than 10 officers to supervise 30 merchant banks, it delegated supervision to the Nonbank Deposit Insurance Corporation. This system of delegated supervision turned out to be ineffective.

Sensitive to criticism since the early 1980s that the financial supervisory system was inefficient and corrupt, the Government established FSC in April 1998 under the Office of the Prime Minister to function as a neutral and independent agency. FSC took over the supervisory power of MOFE, which the ministry had de facto exercised through four legally independent agencies. The four agencies—the Bank Supervisory Board, Securities Supervisory Board, Insurance Supervisory Board, and Nonbank Supervisory Board—were merged in January 1999 into the Financial Supervisory Service (FSS), which is under the direct supervision of FSC. FSC also established a subcommittee, the Securities and Futures Commission (SFC), which is responsible for the orderly functioning of the financial market. FSC plays a key role in restructuring the financial and corporate sectors. Under the new structure, BOK no longer has supervisory power over the banking sector, although it has limited bank inspection power. For example, it may request FSS to inspect certain financial institutions. It may also ask FSS to do so together with BOK personnel, if necessary.

The reasons for consolidating supervisory powers are the following:

- Divesting MOFE of its supervisory power is a necessary condition for the functioning of a neutral and independent supervisory body.
- Rapid financial deregulation requires a consolidated supervisory body. Check and balance among MOFE, FSC, and BOK is expected to help the industry become competitive and viable.

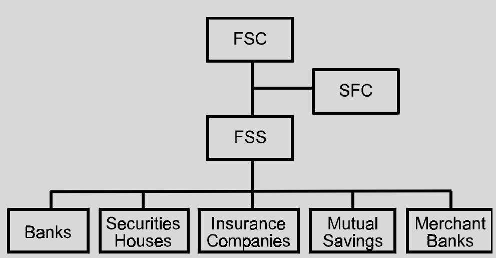
Consolidation, however, is not complete. MOFE still holds legislative authority over any opening, closing, and merger of financial institutions. FSC's supervisory role should include authorization. A regulatory structure is required to preserve the integrity of the financial structure and the soundness of the real economy.

In planning its own organizational structure, FSC studied (i) the entity-process model, (ii) the process-entity model, and (iii) the objective-entity model.[18] In the entity-process model, the primary organization is based on the various entities in the financial sector, such as insurance, banks, and securities, while authorization or supervision plays a secondary role. This model is useful for supervising a wide variety of institutions, but its secondary emphasis on processes makes it difficult to maintain consistency across institutions. Canada and Germany follow this model.

The process-entity model places primary emphasis on processes rather than entities. It also allows effective supervision of a variety of entities and maintains consistency across institutions, but its secondary emphasis on entities makes it difficult to supervise the overall soundness of institutions, or to specialize in institutions. The UK follows this model.

Finally, the objective-entity model is organized around objectives, such as customer protection, an orderly financial market, and sound financial institu-

Figure 2: Postcrisis Regulatory Structure



FSC = Financial Supervisory Commission, FSS = Financial Supervisory Service, SFC = Securities and Futures Commission tions. It has the advantage of maintaining consistency based on objectives. However, it has the same drawbacks as the process-entity model. Australia has adopted this model.

FSC's organizational structure was closest to the entity-process model. After evaluating the three models, FSC finally adopted the process-entity model.

A CONSOLIDATED DEPOSIT INSURANCE: KDIC

An important reform is the strengthening of deposit insurance. KDIC, the consolidated deposit insurance body, was established under MOFE in December 1997. Originally set up for commercial banks in 1996, it was expanded to serve all the financial institutions by absorbing five other separate insurance funds.[19] It does not have supervisory power over the institutions, although it has a limited joint inspection power with FSS. Due to its short history, it does not have enough reserves and it issues bonds to finance itself. Its authorized bonds amount to W31.5 trillion, which are used for capital injection and deposit-loss coverage of ailing financial institutions.

In November 1997, MOFE announced that the Government would fully guarantee the principal and interest of all deposits until end-2000 to prevent the collapse of the banking system. The announcement set off a serious moral-hazard problem: ailing banks offered higher deposit rates to prevent liquidity shortage, and depositors selected banks offering higher deposit rates without evaluating the banks' soundness because all their deposits were fully protected by the Government. The Government thus scaled down the protection level to W20 million for deposits made after 25 July 1998, which was a step toward a market-driven restructuring of the financial system.

KOREA ASSET MANAGEMENT CORPORATION

KAMCO was established in 1962 to manage bad loans of the State-run Korea Development Bank. On 24 November 1997, it completed a major reorganization effort to carry out the acquisition and disposition of NPLs more efficiently under the control of MOFE. It adopted the divisional structure of the Resolution Trust Corp. When it was reorganized, NPLs amounted to W38 trillion and the Nonperforming Asset Management Fund was W10 trillion. In May 1998, the fund size was increased to W32.5 trillion. The bailout fund is used to buy NPLs of financial institutions and assets of ailing business firms. KAMCO finances itself by issuing W32.5 trillion worth of its own bonds and by disposing purchased assets through direct sale of these assets or of asset-backed securities. KAMCO bailout funds and KDIC funds constitute the fiscal support needed to facilitate the financial sector restructuring process.[20]

Deposit Insurance System

Major changes have been made in the Depositor Insurance Law, such as reducing the amount of guaranteed principal to prevent moral hazard for depositors and financial institutions. The revised deposit insurance system now applies to almost all financial institutions, including merchant banks, insurance companies, securities companies, mutual funds, and credit unions. Thus deposit insurance covers all financial institution deposits except investment products, such as merit-based trusts, benefit bonds, and trust accounts.

The new deposit insurance system divides deposits into three categories: (i) protected, (ii) temporarily protected until 2000, and (iii) not protected (Table 7). For example, only the principal is insured for accounts of W20 million or more opened or deposited after 1 August 1998. Repurchase agreements (RPs) issued by banks and securities houses after 25 July 1998, and fidelity or surety insurance policies entered into after 1 August 1998, are not insured. The Government is studying the feasibility of a variable-rate insurance system based on risks of insured financial institutions. It is expected that a variable insurance premium rate will be applied once the study is done.

Prudential Regulations

Prudential supervision prevents financial institution managers from exposing their institutions to shocks

Table 7: Deposit Protection

Financial Institution	Always Protected	Temporarily Protected Until 2000	Not Protected
Banks	Deposits, installment savings, retirement funds, principal protected trusts	Foreign deposits, negotiable CDs, development trusts, bonds issued by banks, RPs issued before 24 July 1998	Merit-based bonds,[a] RPs purchased after 25 July 1998
Merchant banks	Receipt notes, collateralized notes, cash management accounts		Noncollateralized notes, RPs
Insurance companies	Individual insurance contracts, corporate insurance in the form of retirement funds, retirement insurance contracts	Corporate insurance besides retirement funds, guaranteed insurance contracted before 31 July 1998	Guaranteed insurance contracted after 1 August 1998
Securities companies	Deposits, futures, option deposits, money market funds	RPs purchased after 24 July 1998	Accounts used for tax-deferral purposes
Mutual savings and finance companies	Deposits, installment savings, receipt notes		
Credit unions	Deposits and investments approved by credit unions		

CD = certificate of deposit, RP = repurchase agreement.
[a] Merit-based bonds are trust products whose yields are based on performance.
Source: Korea Deposit Insurance Corporation.

that could jeopardize their solvency (Santomero 1997). As part of their oversight functions, regulators get information through examinations. They often experience difficulty, however, in detecting misbehavior of managers because of limited time and funds. It is therefore necessary to incorporate a disincentive system into financial institutions that will prevent managers from taking excessive risk. Capital adequacy requirements are examples of disincentives.[21]

FSC and MOFE have made significant efforts to improve the institutional setup of the financial system in order to prevent another crisis. Crisis prevention demands a healthy domestic financial system, the preconditions of which are (i) confidence of depositors, (ii) sound risk management, and (iii) prudential regulation.

Since the crisis, the Government has established a system of prudential regulation and supervision for the financial sector. The new system includes the following measures: (i) strengthened PCA system, (ii) introduction of new banking sector disclosure items, (iii) transparent accounting system with accurate and conservative portfolio valuation and classification, (iv) enforcement of liquidity management relative to foreign exchange risk, and (v) transparent treatment of trust accounts.

PROMPT CORRECTIVE ACTION SYSTEM

In the US, the PCA system was designed to limit regulatory forbearance by making intervention less discretionary and more timely in order to reduce failure costs. Using the US system as a benchmark, FSC introduced a PCA system for almost all financial institutions in June 1998. Under the system, the Government will monitor quality control, on a quarterly basis, of financial institutions with a BIS CAR of less than 4 percent. In evaluating assets and liabilities, FSC will decide whether or not to order these institutions to submit management improvement schemes.

The most important indicators in the PCA system are the following: (i) BIS CAR for banks, (ii) operational net capital ratio for securities companies, and (iii) solvency margin ratio for insurance companies. Assessment of capital adequacy standards will be facilitated by bringing up to international standards (i) asset classification standards, (ii) provisioning requirement standards, and (iii) accounting principles. The PCA system is necessary to gain independence from politicians. It is not yet clear, however, whether FSC will apply the new standards strictly during the crisis period, since strict application of the PCA system might result in the closing of too many financial institutions. Financial institutions' difficulties are mostly due to systemic causes rather than mismanagement by individual institutions, and the PCA's role is limited.

BANKING SECTOR DISCLOSURE

Disclosure of reliable information enables market participants to assess the condition and performance of banks and allows market discipline to function. Market discipline complements the work of regulators, resulting in a stable financial system.

In April 1998, FSC added to the required disclosure list new items necessary for judging management conditions and which meet international accounting standards, such as size of NPLs, risk management measures, and assets by country. In addition, the first half-year preliminary audit results have become a mandatory disclosure item. Banks are also required to disclose when large loans become nonperforming and if they lose a lawsuit.

MARKET VALUE ACCOUNTING

Previously, securities (private placements and commercial paper held by trust accounts) were treated like loans, with no mark-to-market option. In June 1998, the Government introduced mark-to-market for securities in order to make banks' accounting systems transparent. Securities are now classified by maturity rather than currency denomination. Thus marketable securities must be valued quarterly at their market rate.

This measure is a big step toward full market-value accounting, represents a trend toward more market-driven information, and is expected to force Korean banks to respond more quickly to market conditions.

IMPROVEMENT IN CALCULATING BIS CAPITAL ADEQUACY RATIO

In January 1999, the calculation of BIS CAR was changed such that loss provisions for loans, except for normal or precautionary, are deducted from Tier-2 capital. In addition, some assets related to the promised yield liabilities in the trust account are treated as assets in the bank account.

PRUDENTIAL RULES FOR FOREIGN EXCHANGE LIQUIDITY AND EXPOSURE

In July 1998, the Government changed the regulations to improve risk management for short-term foreign currency liabilities. Applying the risk management technique to gaps between asset and liability exposures, financial institutions are now required to report maturity mismatches in the following categories: (i) 1-7 days, (ii) 7 days to 1 month, (iii) 1-3 months, (iv) 3-6 months, (v) 6 months to 1 year, and (vi) over 1 year. Commercial banks started using this method in their July 1998 reports. Another new regulation stipulates that the ratio of current assets to current liabilities (90 days to maturity) must be at least 70 percent. A new comprehensive risk management system sets exposure limits for each country based on international credit ratings.

TRUST ACCOUNTS

Rules providing for full disclosure to trust beneficiaries went into effect on 1 January 1999, precluding any possibility of loss guarantees by managing banks. All trust accounts with guarantees are placed on a special balance sheet for supervisory and accounting purposes. For capital adequacy purposes, assets in such accounts are weighted at 50 percent for all of 1999, and at 100 percent after 1 January 2000. The new restrictions are applied to all trust accounts, ensuring separation of the accounts for management and accounting purposes.

Loan Classification Standards and Provisioning Requirements

In July 1998, the Government made loan classification standards and provisioning requirements more conservative in line with international standards. Loans in arrears for three months or more are now classified as substandard or lower, and loans in arrears for one to three months are classified as precautionary (Table 8).

FSS uses new loan classification procedures for its semiannual auditing of bank loans. Its evaluation incorporates the findings of diagnostic reviews and ensures that classifications by management, as well as reviews by examiners, fully reflect the debtor's capacity to repay, and not simply past performance. On 1 July 1999, the loan classification system will become even more conservative, with expected future performance a criterion for classifying an asset as problematic.

OBS, which was merged into FSS on 2 January 1999, also tightened provisioning requirements on 1 July 1998 to meet international standards. Requirements for precautionary loans have been raised from 1 to 2 percent. Provisioning requirements for substandard loans, doubtful loans, and estimated losses are now 20, 75, and 100 percent of each category's loans, respectively. For CPs, guaranteed bills, and privately placed bonds belonging to trust accounts, provisioning requirements are now in effect for the first time. As for restructured loans, which have been put in the precautionary or substandard category, FSS will determine how they are to be classified.

Policy Issues

Prudential Regulations

Prudential regulations and supervision are the primary policy concerns, for which IMF and World Bank have specified some issues. The issues and related developments are as follows:

- FSC should be given operational independence and adequate resources. These depend on many factors, two of which are of utmost importance: (i) authority to revise and write laws;[22] and (ii) organizational structure and staffing of FSS, which was established on 2 January 1999.
- FSC needs to bring its regulations closer to international best practice as expressed in the Basle Committee's Core Principles:
  - Banks should deduct from Tier-2 capital all provisions except those with respect to assets classified as normal and precautionary in line with Basle Principle 11, which prohibits including provisions on loans that are substandard or lower.[23] With the effectivity of this measure on 1 January 1999, Korean banks' BIS CAR was slightly lowered. Facing a lowered BIS CAR, Korean banks are expected to decrease loan assets, which are the most risky assets, in order to increase BIS CAR. This will lead to a more severe credit crunch induced by the banks' capital adequacy problems.[24] Bank lending contracted in the US when the regulatory agency there stiffened capital adequacy requirements in the early 1990s.

Table 8: Changes in Loan Classification Standards

Period of Overdue Payment	Precrisis Classification	Current Classification
1-3 months	Normal	Precautionary
3-6 months	Precautionary	Substandard or Doubtful
Longer than 6 months	Substandard or Doubtful	Substandard or Doubtful

Source: Financial Supervisory Service.

– On 1 January 1999, assets in trust account with guarantee were weighted at 50 percent in calculating risky assets, which again lowered BIS CAR. Korean banks have two types of deposits: bank deposits and money in trust. There are two types of money in trust: fixed-yield-based (guaranteed) and performance-based (not guaranteed). The fixed-yield-based money in trust is de facto deposit, which is why the Government guarantees it.

– Trust accounts should be separated from bank accounts for management and accounting purposes. In the past, the Chinese wall between bank and trust accounts was so weak that management had the opportunity to misbehave. The Chinese wall as well as disclosure will be strengthened through a measure to be introduced on 1 January 2000, pertaining to separation of accounts in terms of accounting and management.

– Forward-looking criteria (FLC) of loan classification will be applied beginning 1 July 1999.[25] Once this so-called international standard is followed, total bad loans of banks will increase sharply and banks will need bigger loan-loss provisions. For example, as of end-1998, banks' total bad loans and precautionary loans were W33 trillion and W63 trillion, respectively. With strict application of FLC, however, at least 50-70 percent of precautionary loans are expected to deteriorate into bad loans. In this case, total bad loans are estimated to range from W64 trillion to W77 trillion.

- To ensure that prudential rules and requirements for foreign exchange liquidity and exposure are met, banks should maintain internal liquidity control systems based on a maturity ladder approach.[26]
- The same set of prudential regulations governing commercial banks should also apply to specialized and development banks beginning in 1999. FSC examined the Korea Development Bank, Export-Import Bank of Korea, and Industrial Bank of Korea on 31 March 1999. It should recommend remedial actions.
- The limit of 25 percent of equity capital for lending to large shareholders and their affiliates applies to merchant and commercial banks. All connected lending was audited and disclosed beginning in 1999.
- On large exposures, MOFE submitted an amendment of the general banking law to redefine single-borrower and group exposure limits. Beginning January 2000, these limits will be reduced from 45 to 25 percent of total capital, respectively.
- FSC needs to monitor cross-guarantees, which should be completely eliminated by the end of March 2000. The top five *chaebol* (conglomerates) were required to eliminate all inter-subindustry group cross-guarantees by end-1998.
- With the unification of supervisory organizations in April 1998, FSC needs to enhance consolidated supervision to encompass the full range of banking risk, including foreign exchange risk, whether carried on in the principal bank or in its foreign branches and domestic affiliates and subsidiaries. FSC has to be internally integrated to provide strong prudential supervision.
- Regulatory bodies should improve banking disclosure, auditing, and accounting standards to fully comply with the minimum requirements of the International Accounting Standard. FSS should make banks' reporting requirements more stringent so that supervisors will be better forewarned of potential problems.

Resolution of Nonperforming Loans

Two policy issues are related to the resolution of NPLs: (i) how to finance them and (ii) how to recover the loss. The amount of financing depends on the size and quality of NPLs, while recovery relates to the management of NPLs. Both largely depend on the state of the economy itself.

The size of NPLs is a moving target. It changes according to the standards of loan classification used. Under stricter standards, NPLs are bigger. The international standard became effective on 1 July 1999. As of the end of June 1998, FSC estimated that NPLs, including precautionary and internationally substandard loans, amounted to W197 trillion, of which precautionary credit was W79 trillion, and credit that was substandard and lower was W118 trillion.

Assuming that NPLs amount to around W200 trillion, by international standards, W32.5 trillion of public funds are insufficient to buy all the NPLs of financial institutions. If the purchase price of loans that are substandard and lower is around 40 percent of their face value, then W47 trillion, or W14.5 trillion more than allotted, is necessary to buy them. The Government should either increase the funds or use the allotted funds in a different way.

KAMCO remains the sole asset management company in the country. It has been criticized as ineffective in bad-asset management.[27] Two banks are attempting to establish their own "bad banks" because they believe they can manage bad assets more effectively than other institutions, including KAMCO. From end-June to end-September 1998, 22 commercial banks resolved only W445 billion of NPLs. NPLs that KAMCO did not purchase are estimated to amount to W30 trillion.[28] They need to be resolved by individual banks. The issue is whether or not to give tax and legal incentives to individual banks so they can establish their own bad banks and resolve NPLs by themselves.

Deposit Insurance System

Deposit insurance was introduced to lower exit barriers. Originally, it covered deposits of depository institutions up to W20 million of principal. However, to restore depositors' confidence after the IMF program was implemented, the Government provided an unlimited blanket guarantee on pseudo-deposits and deposits. Some ailing financial institutions took advantage of the blanket coverage by offering high-interest deposits.

A wide range of financial products of all institutions are covered by deposit insurance. It was inevitable that the Government would adopt a wide safety net since it needed to prevent massive bank runs and financial turmoil in the wake of the financial crisis. Considering that only deposits or similar financial products of deposit institutions are covered in developed countries such as Canada, Japan, and US, the coverage in Korea is too wide.

To lessen moral hazard of troubled financial institutions, the Government modified the coverage of deposit insurance from full to limited. However, this remedy only partially cures the moral-hazard problem. The Government needs to introduce a risk-based insurance premium system to deter high-risk taking by ailing financial institutions. In other words, a variable-rate premium reflecting risks of insured banks should replace the fixed-rate premium. The technical issue is how to determine risks of individual banks.

It is obvious that wide coverage by deposit insurance may have a negative effect on the economy. For example, the autonomy of financial institutions may be undermined since the Government has to intervene in the internal management of banks to decrease the risk of bankruptcy. The wider the range of insurance coverage, the bigger the potential burden of the Government.

Enhancing Competition

The policy issues in the area of enhancing competition are (i) how to lower barriers of entry and exit and (ii) how to set up uniform regulations for different types of financial institutions.

To reduce entry barriers, the Government permitted foreign financial institutions to buy local banks. There is no limit on foreigners' equity holdings. Korea First Bank and Seoul Bank will be sold to foreign financial institutions. To decrease exit barriers, the Government introduced the deposit insurance system. To make regulations uniform, it organized FSS to absorb other agencies.

As of end-1999, the Government successfully completed its negotiations with a US financial consortium (Newbridge Capital) to sell its shares in Korea First Bank, which was nationalized on 31 January 1998. However, the Government and the British-owned Hong Kong and Shanghai Bank terminated their negotiations on the sale of Government shares in Seoul Bank at end-August 1999. The Government will seek to attract a management team for the bank through open international recruitment. With the sale of Government shares, foreign banks will increase their market share by about 8 percent. In addition to foreign banks, several joint venture banks will emerge as major players, enhancing competition.

The policy issues relating to entry barriers are whether Government will permit (i) merchant banks and mutual savings to become commercial banks and (ii) domestic investors to become major shareholders of commercial banks. Exit barrier policy issues are (i) how strictly FSS will apply PCA and (ii) what kind of loss-sharing scheme will be used when there are exiting institutions. Finally, the uniform regulation issue is how well FSS will perform as a function-based instead of institution-based organization.

Improving Financial Governance

The Government's goal is to make the financial industry strategic in the 21st century. Profitability must be enhanced. Unprofitable banks cannot be competitive under any circumstance. Maximizing shareholder value is a first step toward making banks profitable. For shareholder value maximization to become a priority for banks, ownership and corporate governance structures need to be modified to strengthen shareholder rights. The policy issue is how to establish ownership and corporate governance structures for banks to be profitable.

The ownership issue is a puzzle. Before the crisis, banking laws stipulated that there could be no controlling shareholders in Korean banks. In other words, ownership of banks was limited. Since the crisis, the banking law has been revised to allow foreign investors to acquire bank shares above 4 percent. Since this law has been criticized for treating foreigners more favorably than domestic investors, MOFE attempted to revise it so as to treat Koreans and foreigners equally. The proposed amendment permits domestic investors, including the chaebol, to have controlling shares of commercial banks. The 4 percent ownership restriction is meant to make it possible for any capable entity to own and manage a bank. Some stakeholders worry, however, that the chaebol will be the only beneficiaries of the new rules. Faced with strong opposition, MOFE failed to sell the idea and created a task force to produce yet another proposal. The latest contains an additional condition for chaebol to become controlling shareholders: they have to put more than 50 percent of their equity capital in their controlling bank within two years. The issue is how to lower the ownership barrier while avoiding exploitation of the banks by their owners.

Corporate governance in Korean banks had been neglected until the banking crisis. One of the most important issues is board governance, of which five basic matters must be addressed: (i) board composition, (ii) role of directors, (iii) structure of the board, (iv) board meetings, and (v) performance incentives and evaluation. Boards of banks are composed mainly of executive rather than nonexecutive directors. Executive directors should hold less than one third of the board seats. Banking laws mandate that 70 percent of nonexecutive directors should be appointed by major non-chaebol shareholders and the rest appointed to represent the public interest. The law should be revised so as not to restrict the composition of the board.

Nonexecutive directors should have both strategic and monitoring functions. The board should be management's partner in shaping corporate strategy. It must also monitor management's performance against key strategic milestones. It should establish long-term performance measures that focus on the creation of shareholder value. Management should report quarterly to the board on performance against key indicators. FSC is trying to introduce US-style board governance into Korean banks, such as Hanvit, through templates. Nonexecutive directors, however, are rare and they may not perform their expected roles.

Bank Restructuring

Restructuring will consolidate the financial industry by decreasing the number of banks and financial institutions. The financial industry will become a two-tier system, with big leading institutions and small following institutions as niche players.

According to FSC, three to five super banks will emerge. These universal banks, with an international scope across all product lines, will have two merits: (i) scope of economy and (ii) one-stop service for customers. Korean banks will move toward becoming universal banks in order to compete effectively against foreign universal banks. Legal impediments to introducing universal banks are (i) the need for permission from the holding company and (ii) regulations on business scope. However, these legal barriers will be eliminated in the near future. The banks will be key in setting interest rates. Aside from the major players, there will be numerous niche players, specializing in either customers or products.

As the corporate banking market becomes depressed, the consumer banking market will emerge as the biggest market in the country. In the past, manufacturers provided buyers with financing. Now, however, manufacturers are forced to improve financial soundness by decreasing their debt-equity ratio. Hence, banks can move into the durable-goods financing market, replacing manufacturers. Mortgage banking will also become more active as banks seek safer borrowers than corporations. The credit card business will also be another big segment of consumer banking.

As new, good-quality corporations withdraw from the lending market, banks will be forced to develop fee structures and to brush up on cash and risk management. Foreign banks are expected to hold their competitiveness in the fee business market.

Low profitability in the banking industry makes it difficult for Korean banks to recover from the banking crisis on their own. FSC makes Government assistance conditional on profitability improvements. Plans for profitability enhancement must be directed toward the following benchmarks: (i) return on assets—1 percent, (ii) return on equity (ROE)—15 percent, (iii) BIS CAR—10 percent, and (iv) efficiency ratio—60 percent.

The profitability of banks depends on many things, but the most important factors are (i) slope of the yield curve, (ii) NPL ratios, and (iii) efficiency ratios. The steeper the slope of the yield curve, the more profitable the bank. The difference between short-term and long-term interest rates is decided by the central bank, so it is not a control variable of the individual banks. NPL and efficiency ratios, however, are control variables and individual banks should keep them below certain levels in order to achieve decent ROE.

The banking sector has historically suffered from (i) poor asset quality, (ii) regulated interest rates, (iii) excessive competition for deposits, and (iv) poor asset-liability management, all resulting in low profitability.[29] Korean banks now face the “twin banking problem”: worsening asset quality and undercapitalization. The domestic debt problem is characterized by bankruptcies of large business corporations triggered by overinvestment and highly leveraged financial operations. The consequence of overinvestment was deteriorating loan portfolios. Large NPLs have caused widespread fear of bank failures, which drives depositors toward the better-quality banks. The banks’ need to meet BIS CAR prevents them from extending loans.

Before the financial crisis, there were 33 banks in the country—16 nationwide, 10 regional, and 7 specialized. With 5 banks shut down and 3 mergers, a total of 25 banks remain—11 nationwide, 8 regional, and 6 specialized. Through its support of recapitalization efforts, the Government has become a controlling shareholder of some of the remaining banks. Korea First Bank and Seoul Bank have been Government banks since 31 January 1998. After their merger, Hanil Bank and Commercial Bank of Korea became de facto Government banks, since the money for their recapitalization came out of public funds. Other banks have also become de facto State banks as the Government was involved in their recapitalization process.

State ownership of banks is worrisome because Government officials seem not to be good bank managers. If Government intervention in the management of de facto State banks persists, the banks may find it difficult to recover. At the same time, funds will be channeled into the Government's pet projects regardless of their profitability, causing banking crises to recur.

The Government claims that so-called "hardware restructuring," which means closure or suspension of nonviable financial institutions, was mostly done by end-September 1998. It currently emphasizes "software restructuring," which means enhancing managerial efficiency of financial institutions. Reengineering and empowerment are the key words replacing restructuring. However, restructuring is not over yet: recapitalization and resolution of NPLs remain to be addressed.

Among the many banks which need Government assistance in recapitalization are Hanvit Bank, Korea Exchange Bank, Korea First Bank, Seoul Bank, and Chohung Bank. Around W2 trillion may be needed by each bank to meet BIS CAR after 30 June 1999. The Government, however, decided not to increase public funds for recapitalization, but instead to use the retrieved funds.

Resolving the Credit Crunch

At the onset of the crisis in November 1997, the Government's first task was to overcome the foreign exchange crisis by securing the supply of foreign funds. It tried to obtain financial assistance from international financial institutions and to extend the maturity of eligible short-term bank debts. It also adopted tight monetary and fiscal policies to squeeze domestic absorption and to prevent capital flight. Exchange and interest rates skyrocketed as a consequence, further burdening indebted domestic firms. As the Government started financial restructuring and requiring the banking sector to raise BIS CAR, most financial institutions halted new lending and even collected existing loans. The severe credit crunch in the financial and corporate sectors spilled over into the real sector, especially the illiquid but viable small and medium-size enterprises.[30] Bankruptcies occurred, and everyday about 10,000 people lost their jobs. The five biggest chaebol, however, had no difficulty finding financing.

To ease the credit crunch plaguing the most vulnerable small and medium-size enterprises, $1 billion from the Asian Development Bank was injected into credit-guaranteed institutions in January 1998. In April, small and medium-size corporations received maturity extensions on their loans also to alleviate the credit crunch, and $1 billion in World Bank funds to bolster raw-material imports. The Government started to lower interest rates by supplying more liquidity and speeded up financial restructuring as it realized that the credit crunch would not be resolved without sound banks. These measures helped somewhat, although many small and medium-size enterprises still have difficulty raising funds without collateral.

Policy Recommendations

Prudential Regulations

There are three ways by which FSC may become more independent:

- It may merge with the Department of Financial Policy (DFP) in MOFE. The new body may be called the Department of Finance. It would have the authority to revise and write laws, and to lead and monitor FSS.

- DFP may be transferred to FSC.
- MOFE may transfer authority to FSC to revise and write laws, without organizational reshuffling.

The third alternative is easiest because it does not involve organizational change. However, DFP would still need to be restructured heavily. FSS should recruit professional regulators and examiners who are capable of enforcing international best-practice regulations. The unified supervisory organization needs to enhance consolidated supervision through function-based organization.

To enforce prudential regulations, FSC should enact measures specified under the agreement with IMF. The establishment of the international loan classification standard is delayed. Issues such as corporate governance of financial institutions and consumer protection have yet to be addressed. In order to improve corporate governance, banking laws must be modified to strengthen the function of the board of directors, which is expected to enhance the accountability of management.

Specific policy recommendations are the following:

- FSS should bring its regulations closer to international best practice as expressed in the Basle Committee's Core Principles. For example, it may set up a special task force under the Department of Supervision Policy in order to find out the precise impact of these measures.[31]
- Trust business should be restructured in order to protect customers. Chinese wall as well as disclosure should be strengthened before the 1 January 2000 deadline. Money in trust may be transformed into mutual funds so that customers clearly see the risks involved.
- The forward-looking standard of loan classification should be applied immediately. It is already much delayed; to avoid further delay, FSS should take the necessary measures to recover BIS CAR.
- FSS should recruit professional risk managers as regulators and examiners to supervise foreign exchange liquidity.[32] FSC must require banks to implement asset liability management (ALM) to reduce risks related to liquidity, interest rates, and foreign currency. FSC needs to monitor ALM monthly.
- MOFE and FSC should coordinate more closely in applying the same set of prudential regulations to specialized and development banks. Or FSC should have full responsibility for specialized, development, and commercial banks.
- In addition to setting a limit of 25 percent of equity for large shareholders and their affiliates, individual banks need to improve the credit approval process to avoid connected lending. For example, independent loan officers must review applications for large loans, and approve them only when everybody agrees that they should be approved. To ease concentration problems in the loan portfolio, individual banks need to set internal guidelines. This is the starting point of credit risk management.
- FSS should be made into a function-based organization as planned.

All the policy recommendations stress the need for adequate staff and an understanding of the impacts of policy measures. Neither can be obtained without professional regulators and examiners equipped with the proper know-how and skills. Massive outside recruiting is required.

Resolution of Nonperforming Loans

Different approaches are needed to deal with future NPLs. In 1998, KAMCO had to purchase NPLs because there were no other buyers. As the economy weathered the foreign exchange crisis and market conditions improved dramatically, commercial banks have been able to resolve their NPLs by themselves.

The face value of NPLs bought by KAMCO ranges from W75 trillion to W85 trillion.[33] However, the peak level of NPLs is expected to be W118 trillion even by FSC estimates. This means that NPLs of W33 trillion to W43 trillion should be managed by individual banks. Other alternatives to resolve NPLs may be considered, as follows:

- Permit the establishment of private asset management companies and offer incentives.
- Encourage systemic debt-equity swap between companies and banks.

The rationale for having private bad banks is that bank managers cannot focus on their usual business if they have to attend to large NPLs as well. Bad assets may be managed through (i) a centralized public asset management company, (ii) a decentralized private asset management company, or (iii) a combination of public and private asset management companies. The third alternative seems inevitable.

Establishing private asset management companies requires introducing a competitive bad-asset management system, which is more efficient than KAMCO's monopoly. The setting up of private bad banks is possible only when there are investors who are willing to put their money in a bad bank.[34] Government needs to make the investment environment attractive.

Deposit Insurance System

As the economy and financial markets recover, the Government should see to it that the deposit insurance system meets global standards and decreases moral hazard by ensuring the following:

- Insurance should cover only bank deposits and a limited range of NBFI deposits or deposit-like financial products.
- Deposit insurance premiums should be changed from fixed to variable as soon as possible.

Specific policy recommendations regarding the deposit insurance system are as follows:

- Modify the premium to avoid moral hazard by both banks and depositors.
- Enable the KDIC to pursue its goals.
- Limit insurance coverage to only a certain amount of bank deposits after the year 2000 in order to avoid moral hazard by depositors and to encourage market discipline.
- Set up a single index of bank risk that both banks and regulators agree upon. KDIC may introduce a variable rate premium system based on riskiness of individual banks. However, FSS, in collaboration with the banks, needs to provide a single risk measure which will serve as the system's base.
- Recruit professionals and examiners to staff KDIC.

Enhancing Competition

Entry barriers to NBFIs have been significantly lowered. However, banks still have high entry barriers. Government must permit merchant banks and mutual savings to become commercial banks and domestic investors to become major shareholders of commercial banks. The danger that the owners will exploit the banks can be eliminated if FSS supervises them, particularly in the area of connected lending.

Policy recommendations related to exit barriers are the following:

- FSC must strictly apply PCA. In order to avoid regulators' forbearance, the criteria of PCA must be transparent. The Government must shoulder the resolution cost.
- FSS must become a function-based instead of institution-based organization in order to achieve uniform regulation. As lines of demarcation among banking, insurance, and security businesses become blurred, uniform regulation will naturally follow.

Improving Financial Governance

Policy recommendations are as follows:

- The 4 percent ownership restriction should be eliminated and safety nets prepared in order to avoid exploitation of banks by their owners.
- Banks' board governance should be enhanced. The Government will be a main force in corporate governance of de facto State banks as it will influence nominations of chief executive officers (CEOs) and outside directors.

- The number of internal directors should be less than one third of the total number of board members, who should not exceed 12. The board should have committees on (i) board governance, (ii) audit, (iii) management development and compensation, and (iv) risk management.
  – The board governance committee should be responsible for all board processes, including (i) nomination of directors, (ii) committee assignments, and (iii) director turnover.
  – The audit committee should be responsible for maintaining a sound system of internal controls to safeguard shareholders' investments and banks' assets.
  – The management development and compensation committee should lead the process of evaluating top management.
  – The risk management committee should oversee risk management policies and processes.
- Board meetings should be held four to six times a year, each meeting lasting an entire day, properly documented, and allowing plenty of discussion time. Management must ensure that all directors are properly briefed on issues arising at board meetings.
- Director compensation packages should be designed to align the interests of directors with those of shareholders.
- Board evaluation should include annual assessment of the functioning of board processes and individual committees.
- All the processes related to board governance should be clearly communicated to shareholders. The board and top managers should make regular presentations to shareholders and give them the opportunity to ask questions and vote separately on important issues.

Bank Restructuring

The following policy measures are recommended:

- Acquiring banks, of which there are five, must be permitted to establish their own bad banks in order to deal with bad loans. Conditionally approved banks, of which there are seven, need sizable recapitalization in 1999. Foreign investors have suggested a good-bank/bad-bank split alternative where Government takes equity investment in a bad bank. The Government rejected this offer in 1998. However, it must reconsider this alternative. In 1999, Chohung Bank, Kangwon Bank, Chungbuk Bank, and Hyundai Merchant Bank were merged. The merged bank will be a de facto State bank as the Government will support its recapitalization. The Government must adopt measures similar to those applied to Hanvit Bank. KEB Bank and Peace Bank are expected to stand alone. After supporting recapitalization, the Government needs to enhance the value of the banks by requiring strict adherence to performance criteria.
- The Government should reprivatize State-owned banks as soon as market conditions permit. Meanwhile, it should hire management and write management contracts with CEOs. CEOs should be independent of Government, which should limit its role to seeing to it that CEOs keep the terms of the contract. CEOs may be recruited from overseas. Highly qualified foreign management teams may introduce efficient management and help regain the confidence of foreign investors.
- To allay market fears, the Government should clearly define the extent and duration of its role in bank management. Although immediate privatization would be best from a management standpoint, it will be several years before the banks are privatized. In the meantime, the Government should make a blueprint for the management of State-owned banks. One possibility is to appoint a CEO and managing directors through an independent nomination committee and write an explicit management contract. The Government would merely monitor observance of the contract.

- The Government should fully assist recapitalization, otherwise the banks will probably revert to their pre-recapitalized state, as did KFB, Seoul Bank, and Hanvit Bank. It needs to give top priority to allocating public funds for recapitalization.

Resolving the Credit Crunch

To resolve credit crunch in the financial market, credit risk should be decreased. The Government must adopt economy-boosting policies that will expand money supply and encourage Government spending. It should also complete financial restructuring and help banks recover as soon as possible. At the same time, banks must develop sophisticated techniques to correctly analyze the credits of enterprises and to determine how to supply loans in the most sound and efficient way. For example, commercial banks may set up a committee of professional investigative staff, whose members all identify themselves. Banks may also establish work-flow systems that devolve responsibility to lower staff members.

Notes

[1]Three banks—Dongwha, Dongnam, and Daedong—were suspended under a purchase and assumption (P&A) formula on 29 June 1998. Commercial Bank of Korea and Hanil Bank were merged.

[2]Two banks—Kyongki and Chung Chong—were suspended under a P&A formula on 29 June 1998.

[3]The most recent attempt was the establishment of the 31-member Presidential Commission for Financial Reform in January 1997. Its task was to prepare a set of comprehensive financial reform measures. Most of its recommendations were enacted into the 13 financial reform bills only on 29 December 1997, after the International Monetary Fund (IMF) letter of intent required it, which was too late to prevent the financial crisis.

[4]The series of bankruptcies started in December 1996, when Hanbo was unable to meet payments of the principal and interest on its loans, and was placed under court receivership. Then, in March 1997, Sammi Steel also sought court receivership, followed by the Jinro Group in April, the Daenong group in May, the Kia group in July, the New Core Group in November, and so on. Kia's bankruptcy in July created the greatest shock waves. By end-1997, 72 corporations listed on the Korea Stock Exchange had failed. More high-profile bankruptcies followed.

[5]Efficiency ratio is defined as ratio of noninterest expense to net operating revenue.

[6]MOFE, press release on the 4th National Economic Council Meeting (14 April 1998).

[7]"Precautionary" and "Substandard" loan classifications are based on new standards. Asset size was adjusted by evaluating bond holdings at market value rather than book value, and loans by subtracting the estimated loss (20 percent of Substandard + 75 percent of Doubtful + 100 percent of Estimated Loss) from the book value.

[8]The committee's suggestion was approval of four, conditional approval of two, and disapproval of six.

[9]According to FSC, an "approval" rating leads to submission of detailed quarterly implementation plans, which will be monitored on an ongoing basis. "Conditional approval" requires submission of implementation plans within one month. In the event of disapproval of an implementation plan, a mandatory merger order or transfer of business order will be imposed. "Disapproval" leads to mandatory merger or transfer of business under a P&A arrangement. Conditionally approved or disapproved banks that voluntarily pursue mergers with sound banks are exempt from mandatory exit.

[10]To ensure the soundness of acquiring banks, only high-grade assets of the liquidated banks were transferred. Nonperforming assets classified as "substandard" or lower were excluded. Additional safeguard measures were taken to prevent inherent risks involved in P&As:

- KDIC covered for any shortfalls in net worth of transferred assets and liabilities.
- KAMCO and KDIC supported the disposal of NPLs by the acquiring banks, and their recapitalization.
- Within a set period after P&A transactions, the acquiring banks could exercise a put-back option by requesting KAMCO to purchase acquired assets if these were later found to be nonperforming.

[11]Examples of rehabilitation efforts include cost reduction such as layoffs, branch network downsizing, and recapitalization through major shareholder or foreign investment. Loss sharing includes writing down existing equity and forcing management to take responsibility for their misdeeds. In the process, the depositors suffer little loss.

[12]At an exchange rate of W1,350/$, 1997 GDP is $311.8 billion.

[13]Ratios of restructuring cost to GDP are 8.3 percent for Finland (1991-1993), 6 percent for the US (1991-1995), 4.7 percent for Sweden (1991-1993), and 4.3 percent for Japan (estimated after 1998).

[14]In early September 1998, KAMCO sold to Goldman Sachs approximately W255 billion (in book-value terms) worth of acquired NPLs, most of which were uncollateralized. The sale was made in the form of asset-backed securities.

[15]In Japan, parachute appointment is called *amakudari*. Horiuchi (1997) argues that the amakudari system is not effective in disciplining bank management.

[16]MOFE supervised special banks and commercial banks' trust business in addition to NBFIs.

[17]From 1987 to 1995, the average return on equity (ROE) of Korean commercial banks was 5.86 percent, half that of US banks.

[18]The process includes authorization, supervision, enforcement, and consumer protection. Authorization refers to authority on entry and exit. Supervision is about policy setting and examination. Enforcement deals with penalty.

[19]As consolidated, the fund is composed of bank accounts, securities company accounts, insurance company accounts (divided into life and nonlife insurance), merchant bank accounts, mutual savings and finance company accounts, and credit union accounts.

[20]On 26 November 1998, KAMCO started operation by purchasing the combined NPLs of Korea First Bank and Seoul Bank amounting to W4.39 million at the discounted price of W2.91 trillion. The average discount rate was set at 66.3 percent.

[21]Federal Deposit Insurance Corporation Improvement Act linked supervision to bank capital. Regulatory forbearance was reduced by requiring regulators to take prompt corrective action when capital falls.

[22]Unlike the central bank's independence, FSC's operational independence is based on the agency's authority over financial institutions from their birth to their death.

[23]Principle 11 reads: "The aggregate amount of specific and general allowances should be adequate to absorb estimated credit losses associated with the loan portfolio."

[24]FSC has reinforced provisioning requirements and loan classification, which resulted in slow or negative growth of bank lending.

[25]A forward-looking standard considers capacity to repay in addition to past performance.

[26]From sight to one-month maturity bracket, any negative mismatch should not exceed 10 percent of total foreign currency assets.

[27]Some people worry that KAMCO may try to become a permanent institution.

[28]KAMCO does not purchase (i) small NPLs below W10 million, (ii) NPLs originated by overseas branches, or (iii) NPLs without legal recourse. These are estimated to make up 15 percent of total NPLs.

[29]From 1987 to 1995, the average ROE of Korean commercial banks was 5.86 percent, or half that of US banks.

[30]Credit crunch appeared in the form of both high interest rates and shrinking supply of credit because of faulty financial intermediation.

[31]It is not clear whether FSS already knows by how much BIS CAR will decrease due to deduction of provisions on loans that are substandard or below from Tier-2 capital.

[32]FSS has already advertised job openings in risk management. However, it should know that the best talents cannot be recruited without proper compensation.

[33]NPLs here include only loans that are substandard and below. Precautionary loans are not included.

[34]Unfortunately, not many banks can attract investors to finance bad banks without Government assistance. This means that even though the Government permits private bad banks, there will be only a couple of them in the beginning.

References

Bank for International Settlements. 1998. *68th Annual Report 1997/98.* Basle, Switzerland.

Federal Deposit Insurance Corporation. 1997. *An Examination of the Banking Crises of the 1980s and Early 1990s.* Seoul: FDIC.

Financial Supervisory Service. 1999. *Bank Management Statistics.*

Greenbaum, Stuart I., and Anjan V. Thakor. 1995. *Contemporary Financial Intermediation.* Philadelphia: The Dryden Press.

Horiuchi, Akiyoshi. 1997. Financial Fragility and Recent Developments in the Japanese Safety Net. Seminar paper delivered at the Korea Institute of Finance.

Johnson, Hazel J. 1994. *Banking Regulation Today*. Chicago: Probus Publishing Company.

Ministry of Finance and Economy. 1998. *Reference Information for the Korean Forum.*

Park, J. H. and D. S. Kim. 1998. Korean Financial Crisis and Reform: An Overview. Paper presented at the FMA Annual Conference, Chicago, US, 14-17 October.

Santomero, Anthony M. 1997. Deposit Insurance: Do We Need It and Why? *Working Paper 97-35*. Financial Institutions Center, Philadelphia. The Wharton School.