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THE EFFECTS OF FINANCIAL LIBERALIZATION ON THE DEVELOPMENT OF THE FINANCIAL MARKET AND THE ALLOCATION OF CREDIT TO CORPORATE SECTORS: THE KOREAN CASE

by

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March 1986

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ABSTRACT

This paper investigates the effects of financial liberalization on the financial sector development and the allocative aspects of credit in Korea. The paper finds that since 1980, when the Korean government started to liberalize the financial system, the financial sector has grown very rapidly. This growth is largely due to an explosive expansion of non-banking financial institutions and a direct credit market, which have been much less regulated compared to the banking sector since the government's gradual liberalization policy. As a result, the proportion of the corporate sector's external funds which are controlled by the government has shrunk, while the proportion of funds based on market forces has greatly expanded. The distortive effect of the controlled sector's (banks) credit also was reduced through various reforms such as abolition of preferential lending reforms. At the same time, the more controlled financial sector (banks) experienced some degree of liberalization, e.g. abolition of preferential lending rates. This reduced the distortive effects of bank credit. These reforms in Korea's financial sector have led to more equal access to, and cost of, credit among different sectors of the economy. This implies that since liberalization, the financial market has become more integrated with a consequent large improvement in the allocative efficiency of credit.

INTRODUCTION

Korea provides an interesting example of the effect of financial liberalization on the development of financial market and its consequent impact on the allocation of credit to corporate sectors. Its banking system had been heavily repressed and used by the government as an instrument of development policy in the 60s and 70s. The interest rate ceilings were set low which yielded negative real rate in most of the 70s, and the allocation of bank credit was strongly intervened by the government. 1/ The intensity of government intervention in the financial sector became even stronger in the latter half of the 1970s when the government tried to promote heavy industry development, which resulted in a great misallocation of capital.

Since 1980, however, the government has started to liberalize the financial system in conjunction with an overall economic liberalization policy. The approach taken was a gradual financial liberalization policy in which the non-banking sector, which was relatively new and already had been much less regulated, was further deregulated and entry barriers to this sector were greatly relaxed. Compared to the non-banking sector, the liberalization of the banking sector has been slow and limited although there have been several significant reforms implemented. 2/

1/ Korea introduced interest rate reform in 1965 by doubling the nominal rates of bank deposit. The high interest rate, however, did not last long. It virtually ended by 1972. See Section II for the discussion.

2/ See "Status of Korea's Financial Liberalization", mimeo by Yoon Je Cho (December 1985) for the reasons that the liberalization of the banking sector has been slow.

The decelerating inflation together with the government's effort to maintain high real rates led to a big increase in the real rates of return on financial assets, including bank deposits. 1/ At the same time, the competition among various financial institutions was encouraged through relaxation of entry barriers and readjustment of business boundaries of different types of institutions. These led to a dramatic growth of the financial sector since 1980, largely due to explosive expansion of the non-banking sector and the direct market (deregulated sector) and, to a lesser extent, the growth of the banking sector.

As a result, the proportion of the corporate business sector's external funds which are controlled or can be controlled by the government has shrunk, while the proportion of funds based on the market force has greatly expanded. The distortive effect of the regulated sector's (banks) credit also was reduced through the abolition of various preferential lending rates and resulting cost differentiatials not only within the different types of bank loans but from other sources of credit. This led to much equalized access to, and cost of, credit among different sectors of the economy, which implies that the financial market has become more integrated and the consequent allocative efficiency of credit has been greatly improved since liberalization.

In this paper, I investigate the effect of Korea's financial liberalization on the development of the financial market and its implications for the allocative efficiency of credit by analyzing the changes in the access to credit and its cost by different sectors of the economy. The paper

1/ The real rate of interest on bank deposit had been negative during most of the 70s.

proceeds as follows. The first section briefly discusses the historical development of structure of the financial system. The second section reviews the changes in the financial policy in the 70s and 80s. The third section analyzes the effect of policy changes in the 80s, i.e. financial liberalization policy, on the development of the size and structure of the financial sector. The fourth section investigates the effect of the financial liberalization policy and the consequent development of the financial sector on the corporate sector's finance with its implication to the allocative efficiency of credit. The last section concludes the paper with a few comments.

I. HISTORICAL DEVELOPMENT OF THE FINANCIAL SYSTEM 1/

Korea's financial system is composed of a central bank (Bank of Korea), commercial banks (Nationwide City Banks, local banks and foreign banks), special banks, non-banking financial institutions (investment and finance companies, mutual savings companies, merchant banking corporations, life insurance companies, development institutions, etc.), a securities market, and an informal credit market.

The Bank of Korea was established on June 12, 1950, two years after the inauguration of the government of the Republic of Korea. At the same time, an institutional basis was provided for commercial banks to be reorganized under the General Banking Act. The implementation of this act was

1/ See Financial System in Korea, Bank of Korea, September, 1985, for details of Korea's financial system.

delayed for four years until August 1954 due to the Korean War, which broke out less than two weeks after the establishment of the BOK. The primary task facing the financial system after the ceasefire was the financing of the necessary industrial and agricultural projects for economic rehabilitation. For this purpose, two specialized banks were established--the Korea Development Bank in 1954 and the Korea Agriculture Bank in 1956.

Commercial banks were also realigned to meet the short-term financing needed for economic rehabilitation. In addition to the existing commercial banks -- two new banks -- one (Hanil Bank) in 1954 and the other (Seoul Bank) in 1959 were established. At the end of the 50s, there were 6 commercial banks and 2 specialized banks. 1/

Reorganization of the Banking System

When the military government took over, in 1961, a major portion of the equity capital of commercial banks was transferred to the Government, and the Bank of Korea Act was amended in 1962 to strengthen government control over the policies of the Bank of Korea for the purpose of effectively financing the economic development plan. The Government also introduced various specialized banks to support the underdeveloped or strategically important sectors. Currently there are 9 special banks owned by the government.

Meanwhile, the commercial banking system was also restructured to meet the changing needs of the economy: local banks were introduced with the prime objectives of supporting regional economy, and parallel with the rapid

1/ Seoul bank which was established in 1959 as a regional bank of Seoul was authorized to open a nationwide branch network in 1962.

increase in trade volume and the internationalization of the Korean economy, foreign banks were allowed to open branch offices in Korea. Currently there are 7 nationwide city bank, 10 local banks, and 52 foreign bank branches. 1/

Non-Bank Financial Intermediaries (NBFI)

With the intention to induce informal credit market funds into the organized financial market, investment and finance companies were introduced in 1972 to engage in short-term dealings in papers issued by business firms and mutual savings and finance companies were institutionalized from what were formerly pseudo-financial companies to specialize in receiving installment savings and extending petty loans to be repaid in installments. Life insurance companies also have been quite active in mobilizing household savings since their organizations in early 1960s. In 1974 merchant banking corporations were introduced to induce foreign capital and supply medium- and long-term funds for business enterprises.

Securities Market

The securities market has grown rapidly since 1972, supported by a series of measures to promote investment in securities and to encourage enterprises to go public. Late in the 1970s various institutional arrangements, such as strengthening underwriting function of security companies and establishment of the Securities and Exchange Commission and its executive body, the Securities Supervisory Board, were made to ensure sound

1/ See Chart 1 at the end of the paper for the financial institutions in Korea.

operation of the market. In 1984, the value of listed corporate bond was about 10% of GNP and 18% of total bank credit while the market value of listed stock was about 6% of GNP.

Informal Credit Market

Informal credit market played a very significant role of intermediating private savings to business sector in the 60s and 70s when formal financial market was highly repressed. Although the relative size of this part of credit market is not exactly known, the total outstanding volume of the market at the end of 1972 was estimated to be 204.2 billion won, about 29% of total bank credit at the time. 1/ The relative size of informal credit market has shrunken recently as the NBFIs absorb a substantial part of its funds. At the end of 1981, the relative size of it was estimated to be about 7% of total bank credit. 2/ 3/

1/ See Y. C. Park, "The Unorganized Financial Sector in Korea, 1945-1975," Studies in Domestic Finance No. 28, Public and Private Finance Division, IBRD, November 1976.

2/ See "A Study on Korean Curb Markets," (Korean), Korea Economic Research Institute, July 1982.

3/ It is suspected that the size of the informal market has shrunk further since 1981 due to the several financial scandals occurred around this market and the increased real rate of return in the formal sector.

II. FINANCIAL POLICY

The banking sector in Korea, which was a major financial sector, was strongly controlled by the government in the 60s and 70s. In the process of an aggressive and centrally controlled economic development, the Korean government has made an extensive and forceful use of differential access to bank credit and concessionary cost of it as an incentive to assure private industry's close compliance with its plans. The government changed the expected rate of return on investment of its favored sector by controlling the interest rate and allocation of bank credit. Foreign loans which were another source of cheap borrowing to firms had to be authorized by the government and its allocation was largely controlled by the government. By allocating cheap bank and foreign loans to its favored sector, the government could reduce the private cost of investment and increase its expected rate of return. At the same time, by controlling the financial institutions and its credit decisions, the government could change the perceived risk of investment of each sector. Firms which followed government plans could secure a stable flow of bank credit even though their current performance was poor, while firms which failed to closely follow the plan were often denied bank credit (and went to bankruptcy due to the liquidity problem). In other words, the government, by controlling the banking sector, became a risk partner of firms in its favored sector and encouraged them to take projects which otherwise would have been perceived as too risky to accept. The banking system was used by government as a principal instrument of development policy, and was firmly controlled by the government.

The Korean government introduced a major interest rate reform in 1965 by doubling nominal interest rate which yielded high real positive interest rates to increase the domestic resource mobilization. A lot of savings had been shifted toward banks from the then quite active curb markets. The domestic savings ratio also increased substantially during this period. 1/ The high interest rate policy however did not last long. It virtually ended by 1972 when the government went back to low interest rate policy. The real interest rate since then has been negative in most of the rest 70s. (See Table 1). At the same time government increased its intervention in the banking system, creating increasingly more types of policy loans with highly subsidized preferential lending rates. 2/ The interest rates of policy loans were much lower than the general bank loan rate which was already set much lower than the market rate (see Table 2). The real interest rate of some policy loans such as export credit was below -10% in average in the 70s. The cost of foreign borrowing of which allocation was largely controlled by government was also very low in the 70s when exchange rate was fixed under much higher domestic inflation rate than the rest of the world which led to continuously overvalued domestic currency. Since the nominal interest rate of foreign loan was lower than the domestic bank loans under continously fixed

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1/ See McKinnon (1973) and van Wijnbergen (1983) for the analysis of the effects of Korea's financial reform in 1965.

2/ According to Kim and Park (1984), there were 221 types of policy loans among the total of 298 types of bank loans in the end of 1981.

Year	Inflation (A) (GNP Deflator)	Bank Deposit Rate Nominal 1/	Bank Deposit Rate Real*	Curb Market Rate Nominal	Curb Market Rate Real*
1972	16.1	15.0	-1.0	39.0	19.7
1973	13.4	12.0	-1.2	33.3	17.5
1974	29.5	14.8	-11.4	40.6	8.5
1975	25.7	15.0	-8.5	41.3	12.4
1976	20.7	15.5	-4.3	40.5	16.4
1977	15.7	15.8	0.1	38.1	19.4
1978	21.9	16.7	-4.3	41.2	15.8
1979	21.3	18.6	-2.2	42.4	17.4
1980	25.6	22.9	-2.2	45.0	15.4
1981	15.9	19.3	2.9	35.3	16.7
1982	7.1	11.0	3.6	30.6	22.8
1983	2.9	8.0	5.0	25.8	22.3
1984	3.9	10.0	5.9	24.7	20.0

1/ 1 year time deposit at banks.
* Real rate is calculated by the formula 1 + nominal rate/1 + inflation.

Source: Bank of Korea.

Table 2: INTEREST RATES ON VARIOUS LOANS

Year	Curb Market 1/	Corporate Bond	Bank Loan: General	Bank Loan: Selected Policy Loan: Export	Bank Loan: Selected Policy Loan: MIPF 2/	Bank Loan: Selected Policy Loan: NIF 3/	Inflation (GNP Deflator)
1971	46.41	-	22.0	6.0	-	-	13.92
1972	38.97	-	19.0	6.0	-	-	16.11
1973	33.3	-	15.5	7.0	10.0	-	13.40
1974	40.56	-	15.5	9.0	12.0	12.0	29.54
1975	41.31	20.1	15.5	9.0	12.0	12.0	25.73
1976	40.47	20.4	17.0	8.0	13.0	14.0	20.73
1977	38.07	20.1	15.0	8.0	13.0	14.0	15.67
1978	41.22	21.1	18.5	9.0	15.0	16.0	21.39
1979	42.39	26.7	18.5	9.0	15.0	16.0	21.2
1980	44.94	30.1	24.5	15.0	20.0	22.0	25.6
1981	35.25	24.4	17.5 - 18.0	15.0	11.0	16.5 - 17.5	15.9
1982 January	32.64	17.29	15.5 - 16.0	12.0	15.0	15.5 - 16.5	13.2
March	32.60	17.29	13.5 - 14.0	11.0	13.5 - 14.5	13.5 - 14.5	13.2
June	33.12	17.29	10.0	10.0	10.0	10.0	7.6
1983	25.77	14.23	10.0	10.0	10.0	10.0	3.0
1984	24.84	14.12	10.0 - 11.5	10.0	10.0 - 11.5	10.0 - 11.5	3.9
April 1985	-	14.67	10.0 - 13.5	10.0	10.0 - 11.5	10.0 - 11.5	-

1/ Source: BOK.
2/ Machinery Industry Promotion Fund.
3/ National Investment Fund.

Table 3: EFFECTIVE COST OF FOREIGN LOANS

Year		Exchange Rate	Rate of Change	Interest Rate on Bank Loan (A)	terest Rate Nominal	Effective (B)	(A) - (B)
1972	6	399.70	0.40	19.0	5.69	5.29	13.71
	12	398.90	0.00	15.5	6.19	6.19	9.31
1973	6	398.90	0.70	15.5	9.25	[illegible].55	6.95
	12	397.50	0.75	15.5	10.03	10.78	4.72
1974	6	399.00	42.60	15.5	13.38	55.98	-40.48
	12	484.00	0.00	15.5	10.19	10.19	5.31
1975	6	484.00	0.00	15.5	7.31	7.31	8.19
	12	484.00	0.00	15.5	6.63	6.63	8.87
1976	6	484.00	0.00	15.5	6.81	6.18	8.69
	12	484.00	0.00	17.0	5.38	5.38	11.62
1977	6	484.00	0.00	17.0	6.06	6.06	10.94
	12	484.00	0.00	15.0	7.50	7.50	7.50
1978	6	484.00	0.00	18.5	9.19	9.19	9.31
	12	484.00	0.00	18.5	12.31	12.31	6.19
1979	6	484.00	0.00	18.5	10.50	10.50	8.00
	12	484.00	49.17	18.5	14.44	63.61	-45.11
1980	6	603.00	18.87	23.5	9.94	28.81	-5.31
	12	659.90	7.63	19.5	16.75	24.38	-4.88
1981	6	685.10	4.49	19.5	17.25	21.74	-2.24
	12	700.50	11.50	16.5	14.81	26.31	-9.81
1982	6	740.80	2.15	10.0	16.00	18.15	-8.15
	12	748.00	7.45	10.0	9.50	16.95	-6.95
1983	6	776.70	4.84	10.0	9.94	14.78	-4.78
	12	795.50	0.78	10.0	10.06	10.84	-.84
1984	6	801.70	2.89	10.5	13.00	15.99	-5.49 - 5.99
	12	825.70	5.38	11.0	10.75	16.13	-5.63 - 6.13
1985	6	870.10		13.5	9.50		

Source: Major Economic Indicators, Economic Planning Board of Korea, and Economic Statistics Year Book, Bank of Korea, Various Issues.

exchange rate in the latter of 1970s, its cost was even lower than the domestic bank loans (see Table 3).

Since the middle of the 1970s, the Government had tightened its control over finance even more strongly to allocate financial resources to certain heavy industries as private firms were reluctant to undertake investment with a long gestation period with uncertain rate of return. To induce private investment in these industries, the government had to create more distorted incentives in terms of preferential loans. 1/ The level of bank interest rates were set quite low and severe credit rationing prevailed in this period.

Financial Liberalization in the 80s

Having experienced a great misallocation of resources which ended up with huge overcapacity in the heavy industry sector and an associated decline in productivity and international competitiveness, the need for an overall economic liberalization was strongly recognized at the end of the 70s. The government realized that an active government intervention undermined the efficiency of resource allocation and impeded private initiative, thereby impaired economic flexibility. Based on this recognition, the government's policy moved toward economic liberalization since 1980 which would encourage greater openness, autonomy, and decentralization of authority in all sectors of the economy.

1/ One of important preferential loans created to promote heavy industries in this period is National Investment Fund.

In conjunction with the overall economic liberalization program, the government started implementing several reforms toward liberalization of the financial system. In pursuing financial liberalization, the Korean government took a gradual liberalization strateg by first, deregulating further the non-banking sector which already had been much less regulated than the banking sector, widening its business boundaries, relaxing the entry barriers and deregulating the interest rate. Liberalization of the banking sector was much more limited, and also was slower than that of the non-banking sector. At the same time, the real interest rates of financial assets increased greatly as a result of the decelerating inflation and government efforts to keep the real rate of bank deposits high (see Table 1). Furthermore, competition among financial institutions was encouraged by relaxing entry barriers to the non-banking sector, business boundaries among different types of institutions, and allowing by bank managements greater autonomy. The specifics of the reforms are as follows.

Non-banking Sectors

The first step was deregulation of the interest rates of non-banking financial institutions (NBFIs). 1/ When the government encouraged establishment of NBFIs for the purpose of transferring funds from the informal credit market to an organized market in early 70s, NBFIs were provided with a preferential treatment. In particular, they were permitted to pay higher

1/ Although there is no interest rate ceiling in NBFIs, the interest rates are set following the guidance of the Ministry of Finance. However these interest rates are not seriously binding since NBFIs are quite free to circumvent it through various practices.

rates to their depositors than banks in order to overcome their disadvantages as a small and private financial institutions (see Table 4). The NBFIs offered essentially the same type of financial assets as bank deposits, however. In pursuing gradual liberalization of the financial system, the government further deregulated interest rates and asset management of these institutions. In addition, NBFIs were not compelled to channel any policy loans while a substantial part (about 30% in the 70s) of bank credit was earmarked by government for policy loans. The entry barriers to NBFIs was relaxed and they allowed to deal with a greater variety of financial services. As a result, the number of NBFIs increased rapidly (see Table 5). Interest rate ceilings on commercial papers and on unsecured corporate bonds, transactions in which are closely related to NBFI's business, were also lifted.

Banking Sector

The most important features of reforms in the banking sector since 1980 are first, that the level of real interest rate on both deposit and loans has been greatly increased owing to decellerating inflation and governments effort to keep real rates high (see Table 2). At the same time, the adjustment of interest rate ceilings by government has been much more responsive to inflation rates in the 80s than in the 70s (see Figure 1) although the interest rate ceiling itself is still strictly imposed.

Second, the government, which had been the major shareholder of the nationwide city banks, sold its shares in them so that all nationwide city banks became private owned. Along with denationalization, various regulations

Table 4: INTEREST RATES ON SELECTED FINANCIAL ASSETS

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Inflation rate 1/	25.7	20.7	15.7	21.9	21.3	25.6	15.9	7.1	2.9	3.9
Time deposits at bank (three months)	13.8	13.6	14.6	14.2	15.0	18.1	14.8	10.3	7.6	6.0
Corporate Bond Yield	20.1	20.4	20.1	21.1	26.7	30.1	24.4	17.3	14.2	14.2
Commercial paper issued by investment and finance companies (90 days)	17.2	17.2	16.7	16.2	18.2	20.6	15.9	10.8	8.0	8.0
Time deposits at mutual credit cooperatives (three months)	15.5	14.5	15.3	15.5	16.2	19.3	16.0	11.5	8.6	7.3
Beneficiary certificates issued by trust companies	18.2	18.1	18.4	18.8	19.9	22.0	23.6	20.8	14.4	11.4
Borrowings from public by mutual savings and finance companies (three months)	25.0	25.0	25.0	25.0	25.0	30.0	26.7	17.8	13.0	13.0

Source: The Bank of Korea, Money and Banking Statistics, 1984.

Note: Growth rate of GNP deflator.

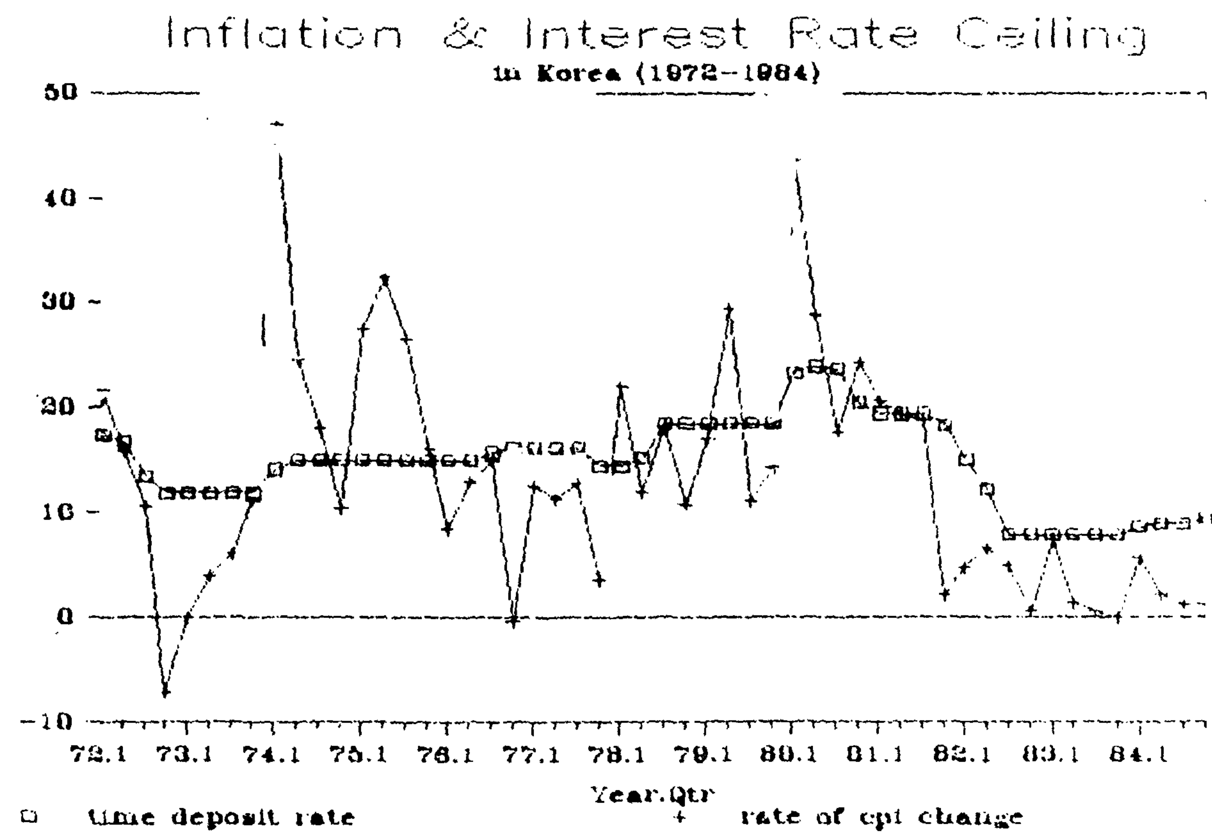
Inflation & Interest Rate Ceiling
in Korea (1972–1984)
Percent
50
40
30
20
10
0
-10
72.1 73.1 74.1 75.1 76.1 77.1 78.1 79.1 80.1 81.1 82.1 83.1 84.1
Year.Qtr
time deposit rate
rate of cpi change

Table 5: NUMBER OF FINANCIAL INSTITUTIONS

	80	81	82	83	84
Special Banks	9	9	9	9	9
Nationwide City Banks	5	6	7	7	7
Investment & Finance Companies	20	26	32	32	32
Mutual Savings & Finance Companies	191	205	249	241	239

Source: Ministry of Finance, Korea.

in the internal management and operations of banks were simplified and relaxed, although the extent was limited. Two other nationwide commercial banks were also allowed to open in order to provide more competition.

Third, and perhaps most importantly, various preferential lending rates were abolished altogether in June 1982 which had long standing in the Korean interest rate structure to selectively subsidize the strategic sector. 1/ In June 1982, the government unified the rates of various bank loans to 10% annually (see Table 2).

Fourth, the direction of government intervention in the banks' credit allocation has been changed in such a way as to correct past mistakes or favoritism (although the extent of intervention may not have been significantly reduced). Since 1980, the government has pressed banks to channel more loans to small-medium firms and to reduce or freeze the share of bank lending

1/ In terms of availability, preferential loans still exist.

to the large firms which were favored in the process of government directed credit rationing in the 70s.

Securities Market

Liberalization of the securities market has also been under process. As was mentioned, the interest rates of the commercial papers and unsecured corporate bond were liberalized. The domestic securities market was opened, to a limited extent, to foreign investors through open end investment trusts and closed-end fund issued in the foreign securities market. Further, foreign securities companies were allowed to participate in the equity ownership of domestic securities companies to a limited extent.

Increased Competition Among Different Types of Institution

Business boundaries between financial institutions have been adjusted to encourage competition among them. Commercial banks were allowed to deal with transactions in commercial bills, trusts, and mutual installment savings business which previously were allowed only to NBFIs. NBFIs were also allowed some money market business. The government has allowed 21 foreign bank branches to open business in Korea since 1981, bringing the total of foreign branches to 52 as of the end of 1985. At the same time, discriminatory restrictions on foreign bank branches in the domestic financial market has been phased out.

III. THE EFFECT OF FINANCIAL LIBERALIZATION ON THE FINANCIAL SECTOR DEVELOPMENT

Since 1980, Korea has experienced a dramatic growth of financial sector. The increased real rate of return on the financial assets relative to that of physical assets such as real estate, and more diversified financial services have attracted the private savings to the financial sector. This growth, in large extent, owes to the explosive expansion of non-banking sector and, in a less extent, to the growth of banking sector. The stock of M_3, which includes the liability of NBFIs, has grown at much higher rate than GNP in the 80s. As a result, M_3 rose to 60.3% of GNP in 1984 from 42.1% of GNP in 1979 (see Table 6). The stock of M_2 has not grown as fast as M_3 though it has grown from 31.6% of GNP in 1979 to 37.7% of GNP in 1984. This growth rate was still high, however, compared to its sluggish growth in the 1970s.

This indicates that NBFIs have grown much faster than the banking sector. In fact, since 1980, the Korean financial system has undergone significant structural changes, of which two distinctive features are: first, the share of commercial banks has been continuously shrinking with the rapid expansion of NBFIs; and, second, direct credit market such as commercial paper and corporate debt have grown rapidly. The deposit share of NBFIs has increased from 23.9% in 1979 to 42.4% in 1984 while that of banks has shrunk from 76.1% to 57.6% in the corresponding years (see Table 6). The ratio of the value of listed corporate bond over GNP also increased from 2.2% in 1978 to 10.1% in 1984 (see Table 6). These developments imply that the less regulated sector (NBFIs and direct credit market) in which interest rates are

Table 6: FINANCIAL SECTOR DEVELOPMENT

Unit: %

	1970-74	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
M_2/GNP	33.9	31.2	30.3	32.4	32.7	31.6	33.7	34.2	38.4	39.3	37.7
M_3/GNP 1/	-		38.7	38.1	45.5	42.1	42.8	47.8	50.9	59.9	64.7
Bond / GNP 2/	-	-	-	-	2.2%	-	4.4%	5.2%	6.4%	7.5%	10.1%
FA / GNP 3/	150	163	163	171	177	180	238	255	292	311	329
National Saving as % of GNP	17.9	19.1	23.7	27.5	28.5	28.1	21.9	21.7	22.4	24.8	27.4
Deposit Share											
Banks	-	84.1	82.1	81.1	79.3	76.1	73.3	68.9	64.6	60.9	57.6
NBFIs	-	15.9	17.9	18.9	20.7	23.9	26.7	31.1	35.4	39.1	42.4

Source: The Bank of Korea, Economic Statistics Yearbook, Various Issues.

1/ M3 is defined as the sum of M2 plus deposits at non-bank financial institutions and commerical bills sold and certificates of deposits and debentures issued by deposit money banks.

2/ Value of listed corporate bonds.

3/ FA refers to total financial assets of the economy which include assets of financial institutions but excluded foreign assets and trade credit.

determined relatively free has grown much faster than the regulated sector (banks). The reason for this structural change is that the Korean government's program of gradual financial liberalization program, resulted in deregulation of the interest rates of the non-banking sector and entry barriers to it faster than in the banking sector. 1/ The asset management and operations of NBFIs has also been free from, or much less regulated by, the government. The liberalization of banking system, however, has been limited and slow compared to that of the NBFIs, despite of several reforms mentioned earlier.

Changes in the sources of business financing have paralleled the changes in the relative importance of different types of financial institutions. These are indicated in the composition of external funds raised by the corporate business sector (Table 7). The distinctive feature of these changes is that the share of bank credit and foreign loans has decreased significantly while that of NBFIs and direct financing has dramatically increased in the 1980s. What this implies is that the share of external funding of corporate business sector, allocation of which has been controlled or can be controlled by the government (bank credit and foreign loan) has shrunk to 29.3% in 1980-84 from 56.3% in 1975-79, and 63.7% in 1970-74, while the share of external fund the allocation of which has not been controlled and not controllable by the government (NBFIs credit and direct financing) has expanded to 67.4% to in 1980-84 from 43.6% in 1975-79 and 35.8% in 1970-74.

1/ One of the reasons for the slow liberalization of banking sector has been the substantial non-performing assets that it has accumulated through its channelling of government directed loans in the past.

Table 7: EXTERNAL FUND OF CORPORATE BUSINESS SECTOR

Unit: million won

	1965-69	1970-74	1975-79	1980-84
Indirect financing	87.8 (47.4)	391.2 (55.9)	1,885.7 (56.5)	5,234.4 (53.0)
Borrowing from financial institutions	87.8 (47.4)	387.9 (55.4)	1,883.7 (56.5)	5,001.8 (50.2)
Banks	69.5 (37.5)	282.8 (40.4)	1,197.9 (35.9)	2,372.9 (23.8)
Non-banks	18.3 (9.9)	105.1 (15.0)	685.8 (20.6)	2,628.9 (26.4)
Government loans	- (-)	3.3 (0.5)	2.0 (0.1)	282.6 (2.8)
Direct financing	27.1 (14.6)	145.3 (20.8)	767.9 (23.0)	4,083.7 (41.0)
Stock	26.4 (14.3)	124.6 (17.8)	458.0 (13.7)	[illegible],059.3 (20.7)
Bonds	0.7 (0.4)	12.0 (1.7)	216.5 (6.5)	1,441.9 (14.5)
Commercial paper	- (-)	8.7 (1.2)	93.4 (2.8)	582.5 (5.8)
Foreign debts	70.2 (37.9)	163.3 (23.3)	681.1 (20.4)	601.6 (6.0)
TOTAL	**185.2** **(100.0)**	**699.8** **(100.0)**	**3,334.7** **(100.0)**	**9,969.7** **(100.0)**

Source: Flow of Funds Accounts, Bank of Korea.

Notes: (1) Figures are all annual averages.
(2) Figures in parentheses represent percentages of total.
(3) Non-corporate enterprises and government enterprises are included in the Flow of Funds Accounts since 1980.

CORPORATE FINANCE AND ITS IMPLICATION FOR THE ALLOCATIVE EFFICIENCY

In the previous section, it was seen that the proportion of corporates' external fund the allocation of which is controlled by government has shrunk and the proportion of which allocation is largely determined by market forces has rapidly expanded in the 80s owing to the liberalization policy. In addition, even the allocation of the controlled part of credit (i.e. bank loans and foreign loans) is subject to less intervention, partly due to the government's liberalization policy, and partly due to the increased real cost. Furthermore, the distortive effect of the bank loans in terms of subsidized cost of them, even though their allocation may still be intervened by the government, is smaller in the 80s than 70s, because their costs are now much closer to market equilibrium level through the increased real rate and equalized through the abolishment of various preferential lending system. The cost of foreign loans is also not subsidized owing to the flexible exchange rate in the 80s. 1/ Therefore, the cost differentials of different sources of borrowing have greatly been reduced. The accessibility to external funds also had been much equalized among different types of borrowers because of the expansion of credit market the accessibility to which is not controlled by the government policy. In addition, access to bank and foreign loans (controlled part) between favored and unfavored sector has been equalized due to the increased real cost which reduced the degree of credit rationing and leaves

1/ Its effective nominal interest rate is close to corporate bond rate in the 80s while it was the cheapest borrowing in the 70s of which cost was equivalent to policy loans such as export credit (see Tables 3 and 4).

less room for favoritism to work, and to direct government's effort to correct past favoritism. 1/

In the 70s, the firms or industries which were favored by government had easy access to subsidized credit, i.e., bank loan and foreign loans, which were tightly rationed, and as a result, could pay a much lower cost of capital compared to the unfavored firms or industries which had to depend other sources of borrowing with much higher cost. Consequently, there have been significant gaps in the cost of capital to different firms and different sectors of the economy which must have given rise to substantially different marginal rates of return on capital among different sectors, and hence to distortive allocation of capital. The financial liberalization in the 80s reduced these gaps significantly and consequently, the resulting capital allocation in the economy became less distortive.

Equalized Access to Borrrowing

In the 70s, the strategic sectors of Korean government was export industries, and heavy and chemical industry. These industries got high priority in banks' credit allocation. The government, in the process of pushing its industrialization plan, also favored large firms in bank's credit allocation. 2/ This is well reflected in Table 8 which shows the ratio of

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1/ The government in the 80s has pushed commercial banks hard to allocate more loans to small-medium firms to reduce the concentration of bank loans on the large firms.

2/ Banks were often directed to give their loans to a specific large firm. In addition, the strict loan rate ceiling set by the government led banks to favor large firms which have secured collaterals, and the credit to which incurs less transaction cost.

Table 8: ACCESS TO BORROWINGS BY EACH SECTOR 1/

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Tot Mnf	45.41%	43.21%	45.22%	40.27%	40.97%	41.32%	39.29%	36.94%	38.55%	38.05%	32.53%	30.81%	28.17%
L Mnf	45.72%	43.55%	45.65%	40.93%	41.36%	41.38%	39.69%	37.32%	39.25%	38.81%	32.26%	30.76%	27.84%
S Mnf	27.27%	26.54%	24.44%	27.38%	34.98%	40.78%	37.02%	34.60%	33.79%	34.31%	33.87%	31.19%	30.40%
S Mnf - L Mnf	-18.45%	-17.00%	-21.20%	-13.56%	-6.38%	-0.59%	-2.67%	-2.72%	-5.46%	-4.50%	1.61%	0.43%	2.56%
X Inds	47.13%	45.95%	49.78%	45.07%	43.11%	44.06%	42.85%	41.10%	48.57%	45.63%	38.07%	35.53%	32.28%
Doms Inds	44.63%	41.75%	42.93%	36.62%	39.91%	39.83%	37.54%	35.24%	31.66%	32.84%	29.00%	28.08%	25.98%
D Inds - X Inds	-2.50%	-4.20%	-6.85%	-8.45%	-3.20%	-4.23%	-5.31%	-5.86%	-16.90%	-12.79%	-9.07%	-7.44%	-6.29%
Hv Chem Inds	49.20%	43.43%	41.25%	38.52%	41.59%	42.53%	41.60%	37.07%	39.67%	40.86%	32.81%	31.08%	27.72%
Light Inds	42.30%	43.02%	49.05%	41.96%	40.32%	40.04%	35.94%	36.79%	37.11%	33.89%	32.13%	30.41%	28.96%
Light - Hv Chem	-6.91%	-0.42%	7.79%	3.44%	-1.27%	-2.48%	-5.66%	-0.28%	-2.56%	-6.96%	-0.68%	-0.67%	1.25%

1/ The figures are the ratios of total bank loans and foreign loans over total asset of each sector.

Source: Financial Statement Analysis, BOK, various issues.

total bank and foreign borrowings over total asset. 1/ Large firms had much greater access to subsidized credit than small firms in the 70s. So did export industries and HC industry than domestic industries and light industries. The gaps, however, have been significanrly reduced in the 80s except for export vs. domestic industries. 2/ Since 1982, small-medium firms even enjoy slightly better access than large firms, while the gap has become almost negligible between HC industry and light industry.

Equalized Cost of Borrowing

In a liberalized and competitive financial market, the cost of borrowing should be the same among different borrowers except the risk premium and transaction cost. But in an economy, where the financial market is repressed and access is restricted by the government, the cost of borrowing can be quite different among different sectors. In Korea, the gap in the average cost of borrowing between different sectors has been greatly reduced in the 80s compared to 70s (see Table 9). The following factors, among other things, have contributed to this development. First, the share of credit by

1/ The reason why I divided total borrowings from bank and abroad by total asset instead of total liability is because that the different debt ratio between different sectors which can underestimate the real difference of accessibility. For example, the small firms which have poor acces to bank and foreign loan usually have low debt ration, and if we divide total bank and foreign borrowings by total debt it can overestimate their access to these sources of borrowings.

2/ Korean government still maintains the preferential treatment to exporting firms in terms of accessibility to bank credit by allowing the automatic access to export credit. Under a tight domestic credit control this privilege gives a great advantage to export sector against domestic sector.

Table 9: AVERAGE COST OF BORROWING BY EACH SECTOR

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Tot Manfact	12.00	8.60	10.50	11.30	11.90	13.10	12.40	14.40	18.70	18.37	15.97	13.63	14.42
L Manfact	11.[illegible]	8.48	10.49	11.19	11.80	11.91	11.91	14.42	18.42	18.30	16.08	13.71	14.45
S Manfact	14.16	11.59	11.41	13.92	14.39	13.00	15.55	14.16	20.74	18.77	15.38	12.95	14.13
S Mnf - L Mnf	2.18	3.11	0.92	2.73	2.59	1.89	3.64	-0.26	2.32	0.47	-0.70	-0.76	-0.32
X Inds	11.06	9.78	9.82	9.82	11.34	12.87	12.68	15.70	16.01	15.81	13.55	12.39	12.91
Doms Inds	12.46	9.84	10.88	12.60	12.25	13.24	12.25	13.80	21.03	20.36	17.59	14.37	15.20
D Inds - X Inds	1.40	0.06	1.06	2.73	0.91	0.37	-0.43	-1.90	5.02	4.55	4.04	1.98	2.29
Hv Chem Inds	10.53	8.65	10.38	10.24	10.14	11.50	10.09	12.51	17.58	17.49	15.29	12.93	14.39
Light Inds	13.31	10.90	10.59	12.16	13.70	14.29	15.85	16.62	20.05	19.64	16.93	14.63	14.46
Light - Hv Chem	2.78	2.25	0.21	1.92	3.56	2.79	5.76	4.11	2.47	2.15	1.64	1.70	0.07

Source: Financial Statement Analysis, BOK, various issues.

non-banking sector and direct credit market, the cost and allocation of which do not discriminate between sectors (i.e. favored vs. unfavored) by government policy, has rapidly expanded. In the past, the governments allocation of bank and foreign loans, whose cost was highly subsidized, gave rise to a substantial difference in the average cost of credit of different sectors i.e. favored and unfavored sectors. As the share of these sources of borrowings gets smaller, the extent that the different accessibility to these sources of borrowing can affect the average cost of credit has also been reduced. Second, the access to these sources of borrowing (i.e. bank and foreign loans) by different sectors has also been much equalized in the 80s. Third, the gap between bank or foreign loan rate and other credit markets' lending rate has also been reduced. As a result, the different accessibility of different sources of borrowing, although it may still exist, does not impact as much as it did in the 70s on the average cost of borrowing of different sectors. Fourth, owing to the abolition of the various preferential lending rates of various types of bank credit the access to which was exclusively permitted to specific sectors, the cost of bank loans was unified. In the 70s, the different access to specific types of concessionary loan even among the bank loans, made the average cost of borrowing of different sectors quite different. In the 80s, all bank loans cost the same irrespective of the type of lending. As a result, as of 1984, the average costs of borrowing are almost equalized between sectors althoughexport sector still enjoys lower cost due to its privileged access to bank loans. 1/

1/ The gaps between export and [illegible]nestic industry's cost of borrowing has, been significantly reduced s[illegible] 1983, however, as the export loan rate was equalized with the genera[illegible] oan rate in June of 1982.

This is also observable in the trend of borrowing costs differentials among different industries of the manufacturing sector. A test of variance of the average costs of borrowing of 68 manufacturing industries 1/ shows that the variance has been significantly reduced in the 80s compared to 70s (see Table 10). This implies that overall credit allocation has become much more efficient in the 80s compared to 70s owing to the financial liberalization policy. 2/

Reduced Debt Ratio

The cheap cost of credit in the 70s made debt finance quite attractive to corporate sectors. The real cost of bank credit, which was a major source of corporate debt during the period, was negative throughout most period. In addition, the government's risk partnership with corporate sector through its control over the bank's credit decisions made the cost of debt finance very cheap in terms of bankruptcy risk also. Usually, the advantage of debt in terms of tax deduction and interest cost is balanced by the high bankruptcy risk it incurs when a firm is highly leveraged. Therefore, there is a strong incentive for firms to keep the debt ratio below a certain level to reduce the bankruptcy risk in a world of uncertainty where their investment

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1/ This is a four digit classification of manufacturing industries according to Korea Standard Classification of Industries (KSIC). I appreciate Mr. Kang Young of Bank of Korea for computing this data for me.

2/ This assumes that the product market gives correct signals about the productivities and profitability of different sectors. If these market signals are distorted the more integrated financial market does not necessarily lead to efficient capital allocation.

Table 10: COSTS OF BORROWINGS OF 68 DIFFERENT MANUFACTURING INDUSTRIES 1/

Year	Average	Variance
1970	17.92	83.18
1971	18.40	55.73
1972	15.05	43.14
1973	11.49	14.38
1974	12.47	17.56
1975	13.59	[illegible].60
1976	14.58	16.13
1977	15.15	18.96
1978	15.52	14.50
1979	17.17	21.44
1980	20.47	20.99
1981	19.50	13.20
1982	16.89	8.33
1983	14.33	8.05
1984	14.46	5.91

1/ This is based on the 4-digit code classification of Korea Standard Industry Classification (KSIC).

Source: Financial Statement Analysis, BOK, Various issues.

* I appreciate Mr. Kang Young of BOK for computing this table for me.

outcomes and interest costs are fluctuating. In Korea, however, strict low interest rate ceilings and implicit government commitment to be a risk partner in case of poor outcomes of its favored sector caused debt finance to be perceived as less risky than it would have been otherwise. 1/ As a result, the corporate sector's debt ratio became increasingly high in the 70s (Table 11) and development of equity market was slow despite the government's intention of developing it. 2/

Table 11: Debt Ratio of Manufacturing Sector

Year	Korea	USA	Japan	Taiwan	Germany
1972	313.4		424.0		
1973	272.7		449.0		
1974	316.0	91.54	459.0	193.2	195.7
1975	339.5	99.33	488.0	160.6	210.4
1976	364.6	100.41	488.0	158.8	212.1
1977	367.2	97.40	475.0	172.0	215.1
1978	366.8	92.84	446.0	160.3	209.0
1979	377.1	85.31	418.0	160.5	211.5
1980	487.9	82.49	385.0	177.0	213.8
1981	451.5	78.58	378.0	175.9	221.7
1982	385.8	78.08	342.0	166.4	216.4
1983	360.3	84.22	324.0	158.5	217.6
1984	340.2	--	--	--	--

Source: Financial Statement Analysis, BOK, 1985.

1/ In the past, Korean government tried to avoid explicit bankruptcies of industrial firms, especially big ones, through relief loans or rescheduling of loans in order to reduce its disruptive effect on the employment and financial transactions in the short run.

2/ While those who could finance through equity market and could create public demand for stock were large and well-established firms, these firms did not have much incentive to finance through equity market because most of them were quite favored borrowers of cheap bank credit.

This high debt ratio made the corporate sector as a whole very vulnerable to external shocks and economic fluctuation which called for more and more government involvement in the bank's credit allocation to bail out troubled firms and industries.

The high real cost of debt, together with the reduced degree of implicit government commitment to be a risk partner in the case of bad performance have combined to cause firms to reduce their dependence on debt. In addition, the government has attempted to reduce debt ratios by directly imposing constraints on the availability of bank loans to highly leveraged firms. 1/ As a result, the debt ratio has been gradually decreasing since 1980 (see Table 11).

V. CONCLUDING REMARKS

The growth of Korea's financial sector since 1980 is a good example of an increase in real interest rates with a stable inflation rate, together with increased competition among financial institutions, providing great momentum to rapid financial development. It also confirms the fact that the deregulated sector grows much faster than the regulated sector when financial liberalization policy is not well-balanced between different sectors of the financial market.

1/ The Korean government set a regulation in 1982 that the firms whose debt ratio is higher than 500% should finance all of its new investment through internal fund.

The Korean case also provides a good example of financial liberalization leading to a more equalized access to, and cost of, borrowing among different sectors of the economy, which can contribute to higher allocative efficiency of credit [McKinnon (1973)]. The increased competition among financial institutions, not only through the cost of credit but also through the variety and quality of services, led to a much more integrated financial market in terms of access and cost of capital among various sectors.

One thing that has to be noted here, however, is that financial liberalization alone may not achieve higher efficiency of domestic resource allocation. The capital market can efficiently misallocate capital to economically inefficient sectors if market signals are distorted by other government policy. For example, when high protection or overvaluation is caused by inappropriate trade and macroeconomic policy, domestic industry may be perceived as a much more profitable sector than the export industry by creditors despite the fact that the export industry is more efficient in the national economy's point of view. Therefore, financial liberalization policy should be well coordinated with other liberalization policies such as trade, foreign exchange and tax policies in order for it to achieve better efficiency of domestic resource allocation and to maximize the growth potential of the economy.

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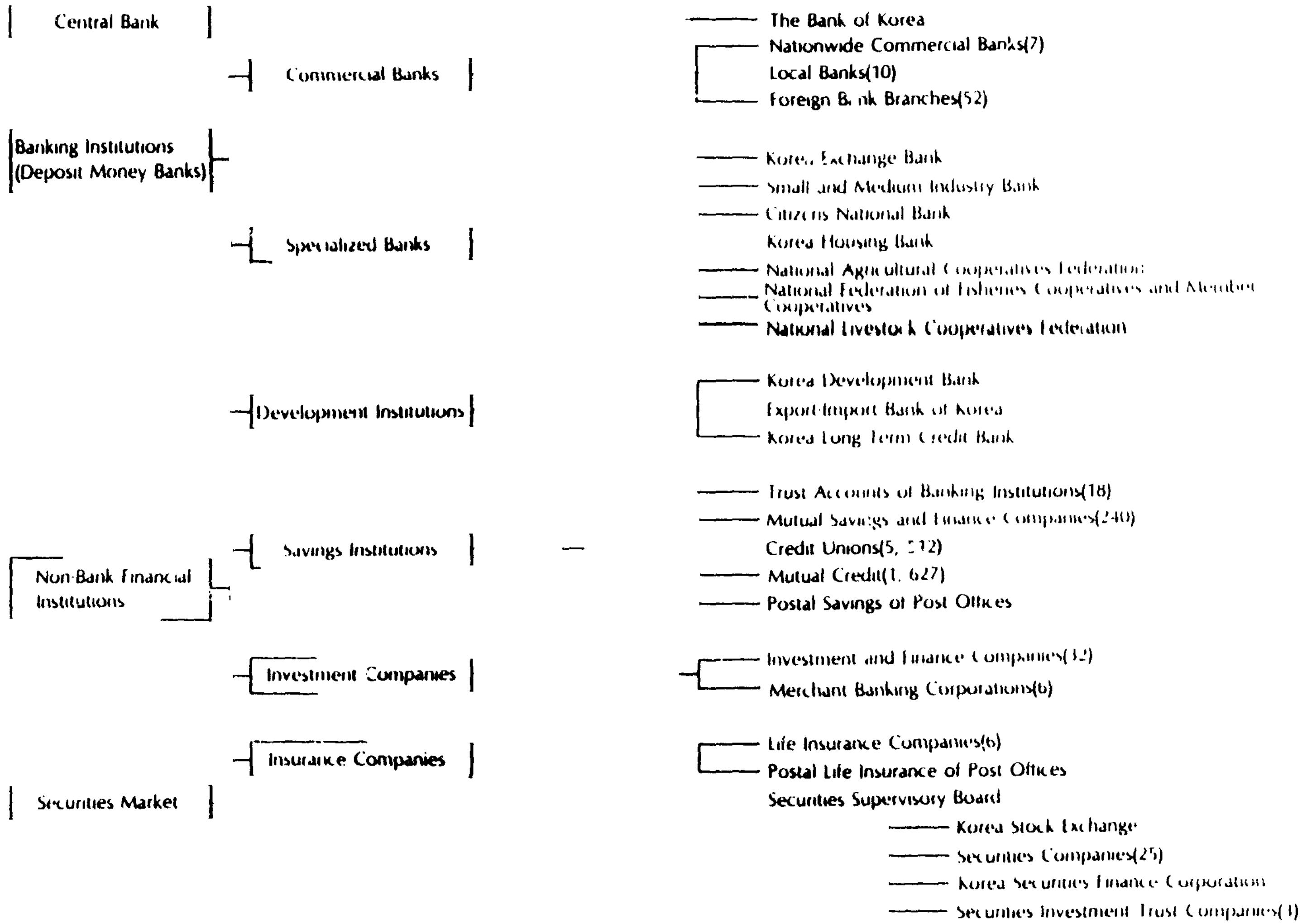
Chart 1 **Financial Institutions in Korea**



Note: Figures in parentheses represent the number of institutions as of the end of June 1985

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