Chapter 2

The Process Leading to Economic Crisis

Foreword

In this chapter, we will analyze the processes of economic collapses in Korea and Taiwan. For Korea, we will in particular show how the problems occurred and accumulated in the real sector in the early the 1990s, and how the economic crisis occurred in 1997. We will also explain the actual conditions of economic vacillation, which have not yet become a crisis, in Taiwan since the second half of 1998, and will look into what caused the vacillation and examine whether it will lead to crisis in the near future.

2.1 South Korea

As was explained in the introductory chapter, more than one factor was at work behind South Korea's 1997 currency crisis. While the general vulnerability of the Korean financial system and the government's policy failures are frequently cited, we should not overlook the fact that the country's real economy was also plagued by problems. The crisis was triggered directly by a sudden outflow of short-term foreign capital, but it is clear that these short-term funds began to flow like a torrent into Korea after the country's current account deficits began to soar in 1996. To understand why the current account deficits, and especially the trade account deficit, expanded so rapidly, we need to examine not just the financial systems but also the industrial structure of the country and the characteristics of Korean enterprises and industrial organizations. With this in mind, this chapter examines the overheated investment by Korean enterprises as well as their frenzied entry into new business areas in the process of transformation of the Korean industrial structure since the mid-1980s. In particular, we identify the problems of plant-and-equipment-dependent industry, which is the core of Korea's industrial structure. This scrutiny will shed light on the background of the current crisis and will eventually point to the future directions for the Korean economy.

2.1.1 Domestic demand-oriented growth in the early 1990s

2.1.1.(1) The legacies of the rapid growth toward the end of the 1980s

As illustrated by Figure 1-4 and Table 1-2, the Korean economy registered double-digit growth for three consecutive years, from 1986 through 1988. Burgeoning exports were the locomotive of this growth. The year 1987 saw an explosion of the democratization movement, followed by an upsurge in the labor movement. Accordingly, wages rose rapidly. The annual nominal wage increase rate in the manufacturing industry grew from 9.2% in 1986 to 19.6% in 1988, 25.1% in 1989, and 20.2% in 1990. These rapid increases had two major impacts on the Korean economy. The first was to lower the competitiveness of labor-intensive products. The won's appreciation against the dollar following current account gains, and the entry of ASEAN countries into Korea's traditional export markets, also served to press down Korea's export growth rate. Korean export on a customs clearance basis thus increased by just 3.1% and 3.0% in 1989 and 1990, respectively (Fig. 1-7).

The second impact was an expansion of domestic demand. Rising wages and increasing incomes of working households stimulated demand for homes and personal automobiles. Thanks to this, Korea was able to maintain a high growth rate above 9% in 1990 and 1991 despite sluggish exports. The share of manufacturing in industry diminished, and that of the construction and service industries increased (Table 1-3). But this shift in the industrial structure had side effects too, which would be felt in the subsequent period.

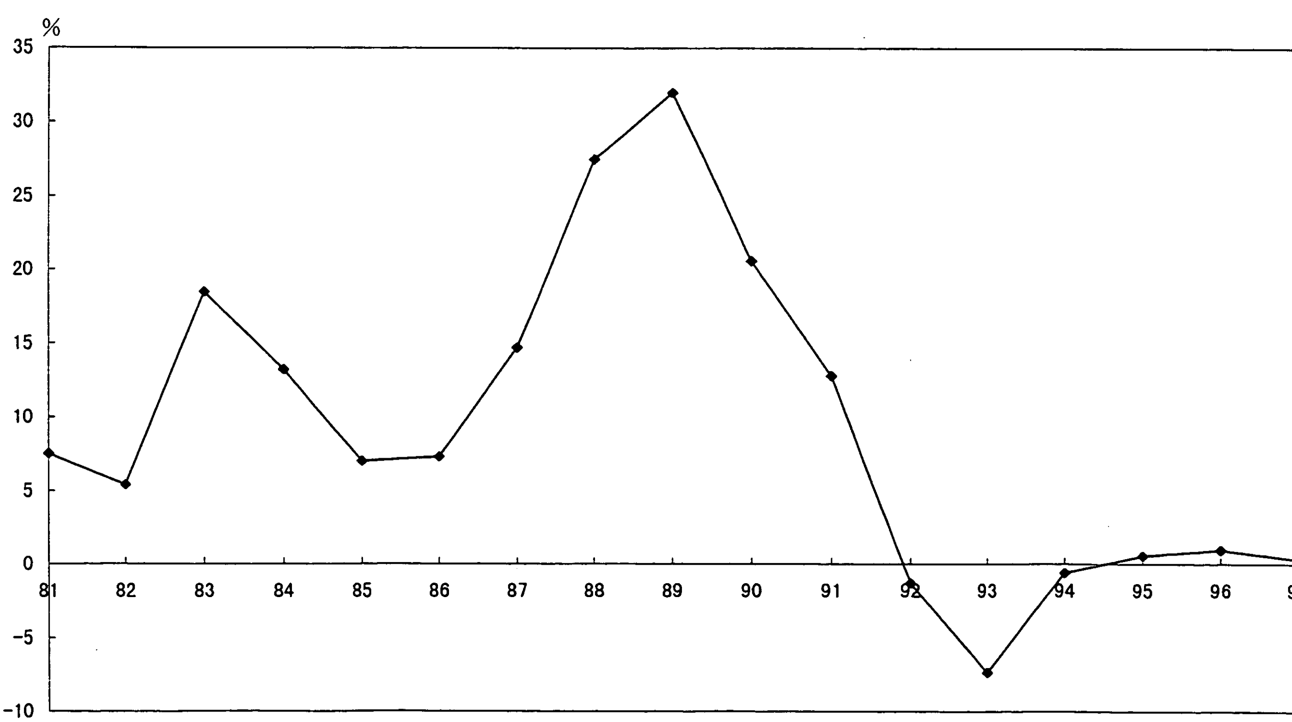
2.1.1.(2) The coming of the housing boom

One representative negative effect was felt in the area of construction. The construction industry enjoyed a boom in the second half of the 1970s, due to active public investment on infrastructure and vigorous housing construction. In the 1980s, the rate of growth of this industry slowed as a result of the demise of the construction boom overseas and completion of the first round of the housing construction rush. The government-set ceilings on the sales prices of apartments, which has been implemented for the sake of price stability, worked as a serious disincentive for housing construction companies[1]. This situation, however, changed drastically around 1987. The thriving economy and relaxation of monetary policy sent land prices to skyrocketing (Fig.2-1) and housing prices soaring. Working people, whose wages had risen, became anxious to buy homes, and this also caused housing prices to go up. Government policies came as an added stimulus. First, the government revised land-related legislation in recognition of the public nature of land. This was in response to growing public discontent with rocketing land prices, that were bringing windfall profits to a handful of landowners. In December 1989, as part of this package, the government put into force a new tax on excess-profits from land ownership. This was intended to levy taxes on capital gains accruing from the ownership of idle land. When this tax was introduced, landowners rushed to turn their idle land tracts into housing sites. Second, "Two million new homes" was a public promise President Roh Taewoo had made during his election campaign. Fulfilling this promise, the government promoted a program to build "new towns" in suburban areas of Seoul such as Boondang, Pyungchung, Sanbon and Choongdong. A shortage of construction materials and labor began to be felt very seriously by the summer of 1990, but the Ministry of Construction went ahead with the program at a pace even faster than earlier planned. The figure below shows the unusual speed at which housing construction was carried out. The construction industry thus grew very rapidly in this period, increasing its share of GDP from 7.6% in 1988 to 13.9% in 1991 (Table 1-3).

2.1.1.(3) The liberalization of entry into the construction business and aggravated competition

The construction industry was originally subject to an oligopolistic structure. To protect and nurture the industry, the government had frozen the issue of business permits for new companies hoping to enter the business. For this reason, the

Figure 2-1 Official Land Price Fluctuation

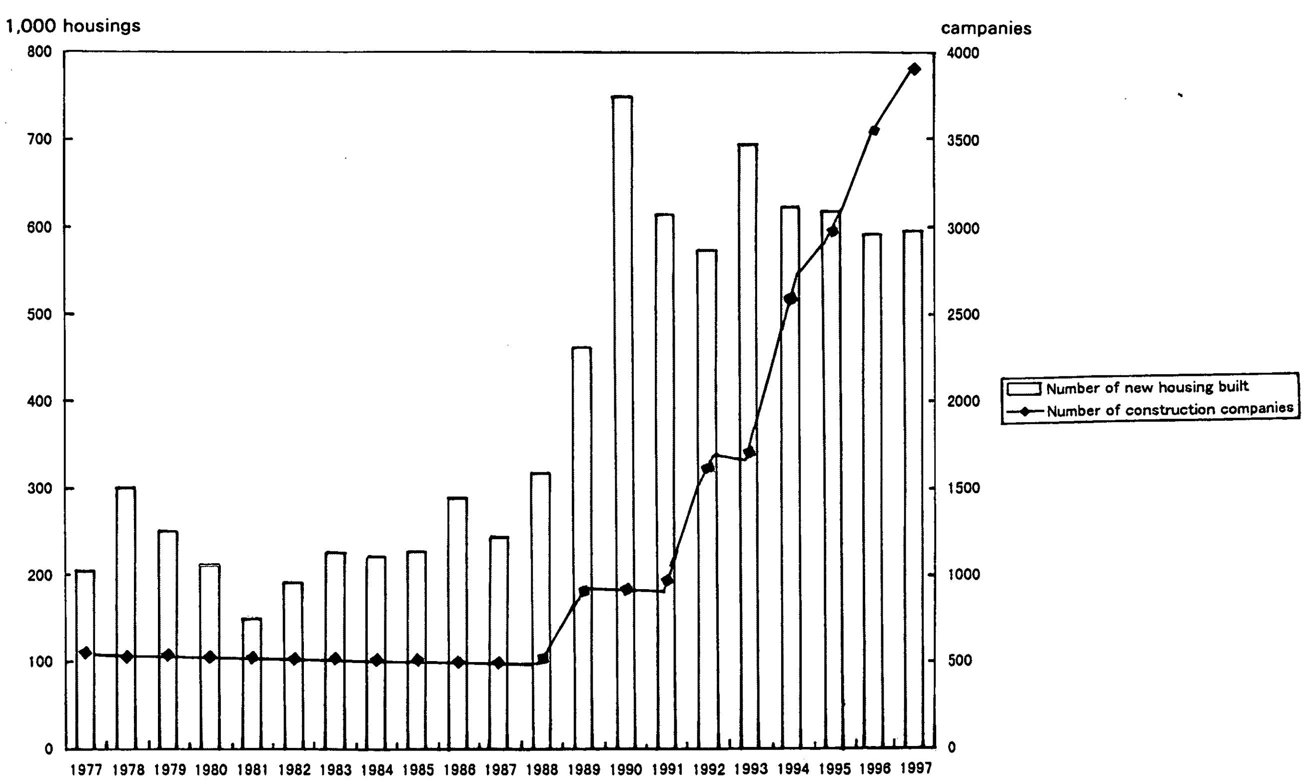


Source: Ministry of Construction and Transportation.

number of construction firms failed to increase, and rather decreased, in the 1970s and for many years thereafter. In order to promote a recovery of the construction business, in 1989 the government decided to resume the issue of permits every three years. This was a transitory measure, designed to encourage competition among construction firms in preparation for the impending opening of the domestic construction market to foreign ventures. In 1994, the government went further and began to accept applications for entry every year[2]. As it was taken in the midst of a construction boom that lasted until 1991, this liberalization measure served to drastically increase the number of construction firms, from 468 in 1988 to 1,700 in 1991, and to 2,651 in 1994 (Fig. 2-2). The unprecedented growth in the construction business, however, brought with it serious material and labor shortages, which in turn invited inflation and deterioration of the country's external trade balance. Reacting to this situation, the government adopted a strong policy of squeezing the construction business. This brought housing starts down, but as a large number of firms were still entering the business, competition became extremely stiff.

The housing construction boom thus had a tremendous influence on the macro economy. Also, this left the construction industry organizationally vulnerable. The effects of the housing spree were not limited to the construction industry. As explained in chapter 3, the housing boom lured the steel manufacturers, who supplied the construction materials, into production capacity expansion drives, causing fierce mutual competition. The unusual consumption boom in that period spurred the retail and distribution industry, including department stores, supermarkets and convenience stores into rapid growth, and competition sharpened there too, as many chaebols entered the business[3]. Intense competition among domestic market-oriented industries continued until the 1997 fiasco, which bared the vulnerability of these industries.

Figure 2-2 Numbers of Newly Built Housings and Construction Firms



Source: Ministry of Construction and Transportation. *The Yearbook of Construction and Transportation*, all related years; *Kunsul Kyotong Baeksu* (The White paper of construction and transportation) 1993-1998, 1998.

2.1.2 Export-oriented growth in 1994-95 and inter-chaebol competition

2.1.2.(1) Export boom brought about by the strong yen and semiconductor sales

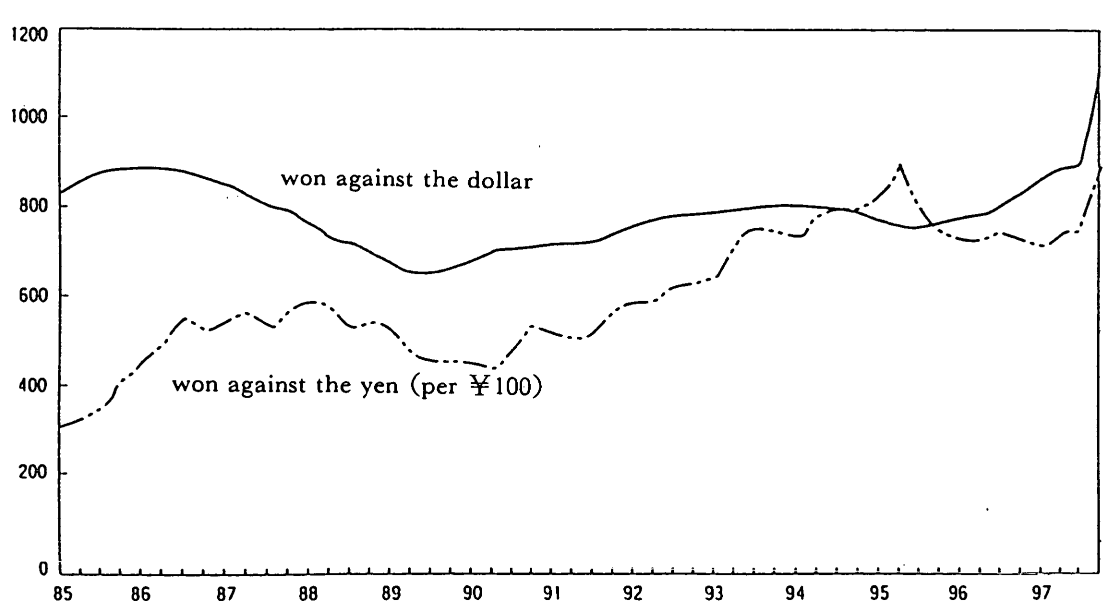
Concerned about inflation and its growing trade account deficit, in mid-1991 the Korean government enforced demand-suppressing policies centered on measures to curb construction investment. The political uncertainty accompanying the presidential transition also worked to discourage fresh investment into plants and equipment. All in all, economic growth slowed (Fig.1-4). But the economy began to grow again in the last quarter of 1993. Again, exports worked as the pull factor. The export growth rate climbed from 6.6% and 7.3% in 1992 and 1993, respectively, to 16.8% in 1994 and 30.3% in 1995. As in the second half of the 1980s, the main factor behind this was the yen's appreciation. The yen began to rise in 1993 while the won was becoming weaker against the dollar (Fig.2-3). Korean goods became relatively more competitive. But as Table 1-5 indicates, already by the second half of the 1980s, Korea's relative advantage had shifted to heavy and chemical products such as chemicals, semiconductors, automobiles, and ships, taking the place of labor-intensive goods. The markets of Korean goods had also shifted to China and other East Asian areas.

The second factor at work was the semiconductor boom. The DRAM market is well known for its rapid generational changes. Korea's export boom coincided with the period of transition from 4-megabit to 16-megabit DRAM chips. As Korean manufacturers had introduced 16-megabite chip mass production lines earlier than their foreign competitors, they were able to capture a large market share for their products. Fortunately, the demand for DRAMs was expanding rapidly against the background of an explosive spread of personal computers, stimulated by Windows 95, which had just been put on sale. Semiconductors thus came to account for 15% of Korea's exports, as shown by Table 1-5.

2.1.2.(2) Invigorated investment, and entry into the heavy and chemical sectors

The burgeoning of exports stimulated investment into plants and equipment. The yen's rapid appreciation in 1995 made Korean businesses optimistic about their future. Out of this optimism, they rushed to invest into new plants and equipment. Investment in this area, which had declined

Figure 2-3 Won Exchange Rate against the Dollar and the Yen



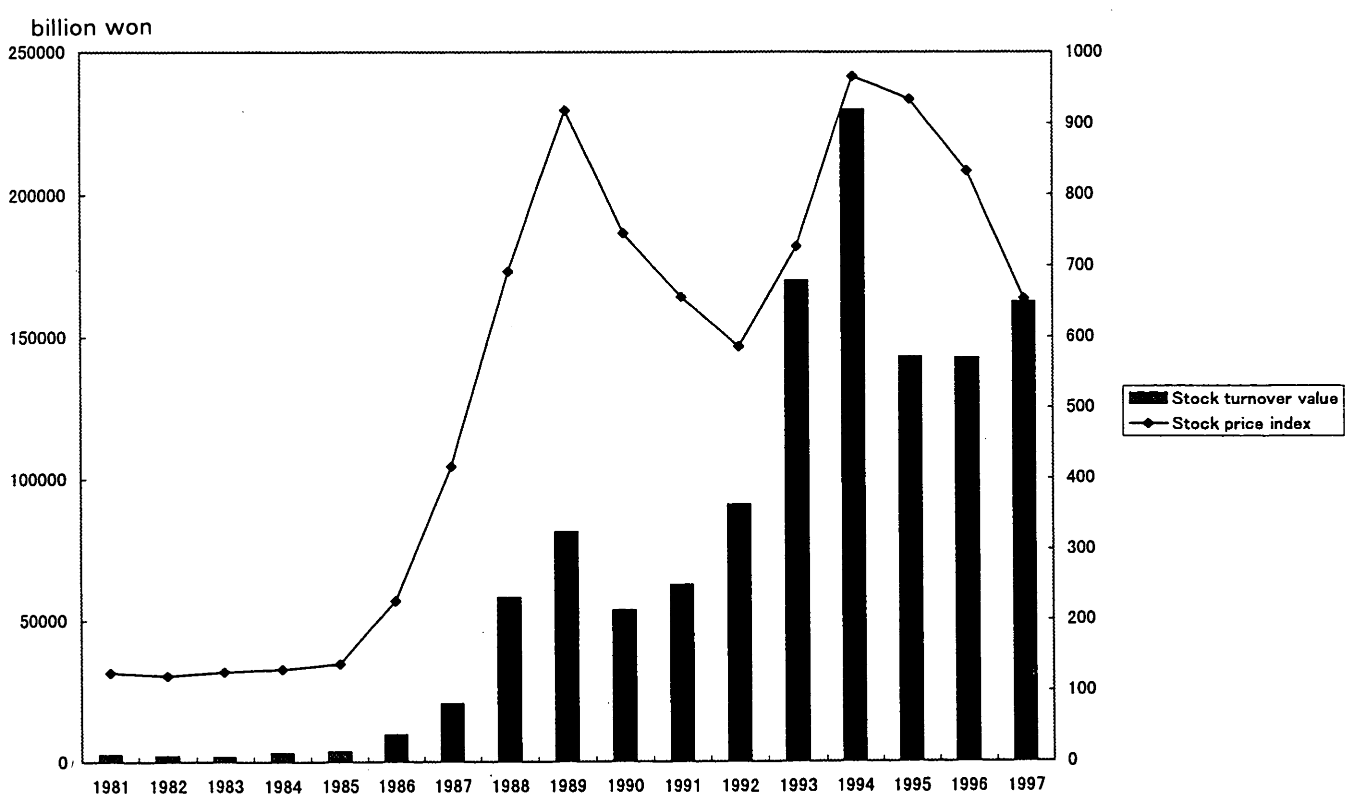
Source: IMF, *International Financial Statistics Yearbook*, all related years.

4.4% and 1.7% in 1992 and 1993, respectively, shot up 23.3% and 22.6% in 1994 and 1995, respectively.

The expansion in investment into plants and equipment in that period was due not only to the yen's appreciation and to export growth. It owed also to the diversification of the means of corporate financing. The stock market had began to recover following the dullness in 1990-92 (Figure 2-4). The bullish market enabled enterprises to increase their capital and list new stocks. And as will be explained later in Chapter 4, the financing of investment into plants and equipment by means of stock and bond issues abroad had become easier with the rapid progress in the liberalization of financing since 1992.

The competitive behavior of chaebols toward growth sectors also increased the investment. A number of new companies were seeking entry into these growth sectors, and established firms tried to deter them by making enormous investments into plants and equipment which they knew the newcomers would not afford. As is well known, in the 1970s the Korean government actively promoted heavy- and chemical-industrialization programs. This was done under the industry promotion laws which regulated the entry of new enterprises and nurtured a few selected enterprises in each business category through preferential allocations of low-interest loans[4]. In the 1980s, however, Korea shifted its economic management policy from a government-led to private firm-oriented style. This led to the 1986 abolition of the industry promotion laws. With this, regulation on entry was abolished in principle. But even after this, the government was still able to regulate entry and investment into plants and equipment under the Industrial Development Law (IDL), a new law replacing the industry promotion laws, using the Industrial Development Council's recommendations as the tool of enforcement. There were also other ways of regulating introduction of technologies and acquisition of plant sites. But in the 1990s, the government was forced to carry out substantive deregulation as Ko-

Figure 2-4 Stocks Turnover Volume and Stock Price Index



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

rea's relative advantage definitely shifted to heavy and chemical industries and as part of its preparations for becoming a member of the OECD. Under these circumstances, more and more companies began to enter the erstwhile restricted sectors.

1) The petrochemical industry

Moves by firms to enter restricted business areas had already become active in the late 1980s. The petrochemical industry was the first business area exposed to competitive new entries. This industry was originally launched by the government with the construction of a petrochemical complex at Ulsan in the early 1970s, and another at Yuchn in the second half of the same decade. Within these complexes, the upstream sector, centering on naphtha crackers, and the downstream sector, including derivatives plants, were linked by pipelines, the former run by the public companies and the latter by private firms. Toward the end of the decade, the upstream plants were sold to private companies. After the liberalization of investment effected in 1986, Samsung, LG, Han Wha, and two other companies which were engaged in downstream operations began plans to participate in the upstream sector. At that time, Hyundai decided to build an entirely new petrochemical complex. To counter these moves, the two existing upstream firms expanded their capacities. The consequence was a rapid capacity expansion from both sides, from 1989 through 1992 (Table 2-1). This led to a situation of serious oversupply, and all the operators suffered losses in 1992-1993. Daehan Petrochemical Co., one of the new entrants in the business, became insolvent and fell under the control of the Company Reorganization Law.

Faced by this situation, the government in March 1992 imposed a plant and equipment investment freeze on this business sector effective until early 1995[5]. However, the end of the freeze immediately kicked off another round of equipment investment as demand for petrochemical products, especially from Asia, rose briskly in early 1995. Consequently, Korea's ethylene production capacity had reached 4,920,000 tons by April 1998, up 1,340,000 tons from the 1994 level.

Table 2-1 Capacity Expansion and New Building of Ethylene Centers (in 1,000 metric tons)

		1988 *	1989	1990	1991	1992	1993	1994	1995	1996	1997
SK	SK	155	400	—	—	—	15	—	50	—	—
Daelim Industrial	Daelim	350	250	—	100	—	—	—	30	—	—
Samsung Petrochemical	Samsung				350	—	50	—	100	—	—
LG Petrochemical	LG				350	—	50	—	80	150	580
Hyundai Petrochemical	Hyundai				350	—	50	—	20	50	—
Daehan Petrochemical	——				250	—	50	—	40	—	—
Honam Petrochemical	Lotte					350	50	—	40	20	—
Han Wha Chemica	Han Wha					350	50	—	20	60	—
Total		505	650	—	1400	700	315	—	380	390	580

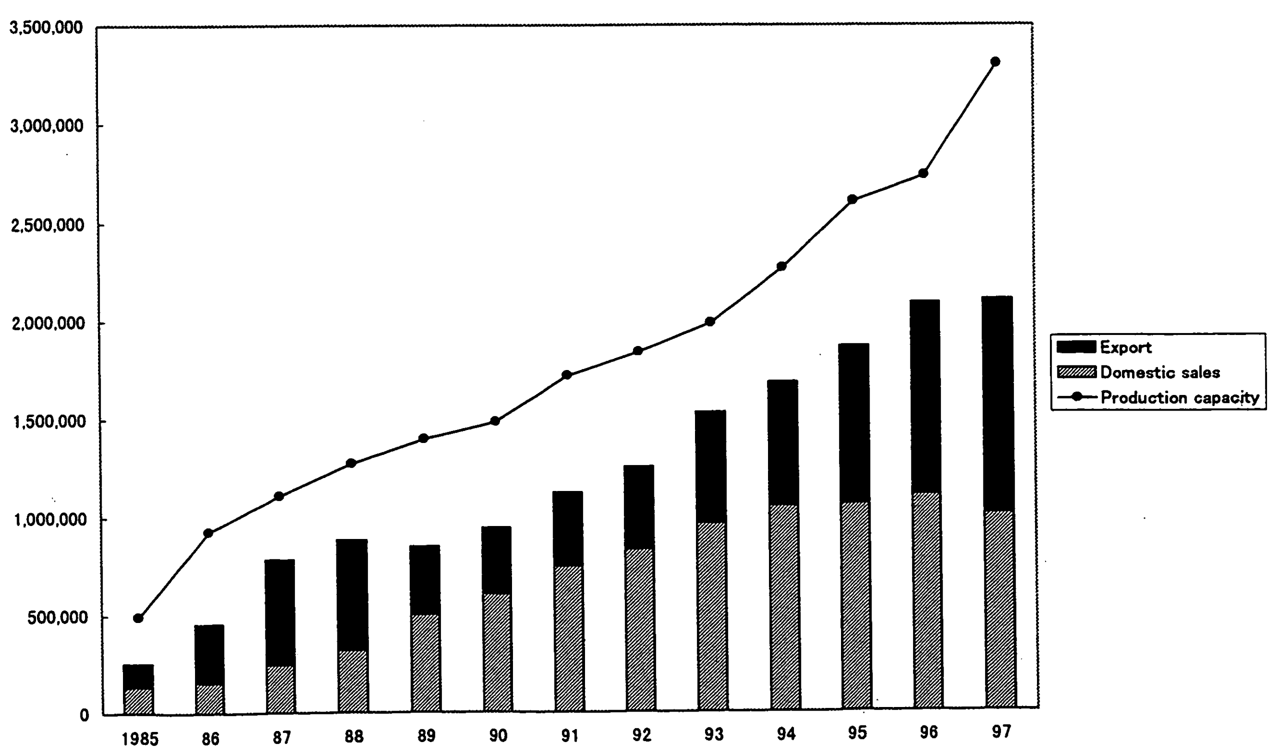
Note: * The total equipment capacity as of 1998.
Source: Suk Kyoon Kim, "Sukyoohwahak Sanub ui Joongbok Kwaing Tooja wa Koojojojung Banghyang" (Over-capacity of petrochemical industry and the direction of its structural adjustment) in *Monthly Bulletin of KDB*, September 1998, slightly revised by the author. The original source is Korea Petrochemical Industry Association.

2) Shipbuilding

Shipbuilding is another sector where an investment rush was caused by investment deregulation. By the 1980s, South Korea had five well-established major shipbuilders, namely, Hyundai, Daewoo, Samsung, Halla, and Korea Shipbuilding. The last was originally a state-owned shipbuilder. These firms enjoyed a boom in the second half of the 1980s. But they quickly lost their international competitiveness following delayed deliveries caused by labor disputes, labor cost increases, and the won's appreciation. Korea Shipbuilding Corporation had to file for protection under the Company Reorganization Law, while Daewoo Shipbuilding also suffered from a serious business deterioration. Given this situation, in August 1989 the government designated shipbuilding as an industry to be subjected to rationalization under the Industrial Development Law. A series of rationalization measures was parceled out specifically for the industry[6]. It was decreed that all plans to construct new shipbuilding facilities or expand existing ones shall be suspended. Daewoo Shipbuilding was granted new bank loans and a moratorium on outstanding loans in exchange for the sale of the group's non-shipbuilding sector. Korea Shipbuilding Corp. was purchased by the Hanjin group. After a change of the name, to Hanjin Shipbuilding Corp., it was granted preferential tax and loan treatment, and allowed to make large equipment investments.

The other shipbuilders naturally felt threatened by the government's rescue operations, that had revived their virtually defunct competitors. They poised themselves to seize any opportunity to fight back. As the investment moratorium was lifted in 1993 as scheduled in 1993, all shipbuilders rushed to expand their existing facilities and build new ones. Samsung Heavy Industries built its No. 3 dock and Hyundai Heavy Industries No. 8 and No.9 docks, while Halla Heavy Industries constructed a new shipyard at Mokpo[7].

Figure 2-5 Sales and Capacity of Passenger Cars



Source: Korea Automoble Manufacturing Association.

3) The automobile industry (passenger cars)

The automobile industry, and its passenger car manufacturing section in particular, was subject to the government's 1980 heavy and chemical industry investment coordination measure. Under it, four car manufacturers were consolidated into two firms, Hyundai Motor Car and Daewoo Motor Car. The entry of new firms into the car industry continued to be regulated under the 1986 IDL. But in 1987 Kia Motors was allowed to begin manufacturing passenger cars. Then in 1989 the car industry was removed from the IDL rationalization measure. With this, all barriers to new entrants were supposedly removed for the car industry. Ignoring the growing demand for passenger cars (Fig.2-5), however, the government in practice continued to refuse to permit the entry of new firms into the industry. The Samsung group, which had started to make commercial cars in 1994, began to press for entry into passenger car manufacturing. The other car manufacturers, however, strongly resisted Samsung's plea, claiming that domestic car sales were already slackening and that economies of scale had almost ceased to work because of the excessive competition between car makers. But Samsung insisted on its right to participate, using its own optimistic demand estimates and arguing that the existing car oligopoly should be broken in order to stimulate competition[8]. After heated debate, the government, toward the end of 1994, permitted Samsung to participate, in exchange for the firm's acceptance of various conditions, including threshold export and local contents ratios (Samsung began marketing its cars in 1998). To counter Samsung's offensive, the early starters drastically expanded their production capacities in 1997, as shown by Fig.2-5.

2.1.2.(3) Overheated investment and entry into new areas: background

As is clear from the above, the heavy and chemical industrial sector emerged fully as Korea's leading sector around 1990. Most of the industries in the sector had been nurtured by the government under the policy of protecting a few selected companies in each industry. As government regulations began to be gradually lifted in the 1980s, outsiders rushed to enter into these fast growing sectors to

Table 2-2 High-ranking Firms' Entries into New Business Areas in the Early 1990s

	Hyundai	Samsung	LG	Dawoo	SK	Other existing groups	Other groups entering anew
Petrochemical (Ethylene centers)	1991	1991	1991		(+)	Daelim 15	Han Wha 9 (92), Lotte 10 (92), Daehan Petro-chemical (91) Hanjin 7 (*)
Oil refining (a)	1993(b)	(*)	(+)		(+)	Ssangyong 6 Han Wha 9	
Steel (Blast furnaces)	(*)					POSCO	
Automobile	(+)	1997		(+)		Kia 8	
Shipbuilding	(+)	(+)		(+)		Ssangyong 6 Halla 12	Hanjin 7 (90)

Note:
+: Already in in the 80s; the figure in parentheses is the year of entry;
* reportedly trying to enter as of 1997; number attached to group name is asset ranking based on asset in 1996.
(a) Full entry liberalization is scheduled in 1999 as per 1996 amendment to the Oil Business Law.
(b) Purchased Kuukdong Refining.
Source: Made by the author from various sources.

partake of the potential benefits. To preempt their entry, the insiders resorted to round after round of capacity expansion. Investment into plants and equipment in Korea snowballed in the early 1990s.

The race between investment and entry became overheated for three reasons. First, the industries in question were all places where economies of scale mattered. The new entrants therefore had to be prepared to make colossal initial investment to match the existing firms' capacities and the insiders in turn had to further build up capacity to outrival the newcomers. This was how the investment race emerged. Second, this investment race took the form of fierce inter-chaebol dashes. Chaebols fought not so much over profit rates as over total asset values and size of sales. They also all wished to have a full set of industries under their control. Taking advantage of deregulation, they wrestled to invade each other's sanctuaries. This was indeed a golden opportunity for them to expand their business scales by mutual territorial penetration (Table 2-2). The chaebol affiliates could afford to make colossal investments, financed by group profits as well as by bank loans guaranteed by other group companies, which they would not have done individually. Third, the government policies invited excesses. As in the cases of the petrochemical and shipbuilding industries, the government still wanted to hold the reins of regulations on investment and new entries in recessional phases, even after the formal abolition of entry restrictions. Eventually, a formidable entry rush was provoked when the gate was opened.

2.1.3 The crisis breaks out

2.1.3.(1) The slowdown of exports and the growing current account deficit

The rapid growth, supported by skyrocketing exports, did not last long. In 1996, the export growth rate dropped to a meager 3.7%, way below the previous year's 30.3%. This downturn was caused by the yen's depreciation as well as by oversupply in the semiconductor market. After reaching a peak strength (80 yen to the dollar) in June 1995, the yen began to depreciate fast. Semiconductor prices also began to plummet at the end of 1995, due to a worldwide glut. The price of 16 mega-bit DRAM fell from 50.5 dollars in December 1995 to 10 dollars in September 1996. While exports slackened, imports remained high as investment into plants and equipment continued to be brisk. This generated large trade deficits. In the meantime, Korea's service account including travel and transportation also registered deficits. All told, in 1996 Korea's current account registered its largest deficit ever, of 23 billion dollars.

Business performance deteriorated rapidly as exports slipped. Firms had to seek short-term money as operating funds. In 1996, all investment and finance companies were made into merchant banking companies, and enabled to induct short-term funds on foreign markets and lend these funds in both won and foreign currencies to Korean enterprises. Commercial banks also joined these operations. The details of this type of operation are explained in Chapter 4. Though financial institutions supplied money lavishly, business demand for the money far surpassed supply, and short-term interest rates rose rapidly in the second half of 1996.

2.1.3.(2) Crisis triggered by the construction and steel industries

The sluggish exports then began to affect the entire economy. In addition, the rising interest rates and the depreciation of the won after June 1996 came as an additional pressures on business performance. As was earlier explained, the construction industry experienced a rush of new entries after the construction boom was over. Because of this, competition between construction firms became particularly harsh. Also, real estate business remained stagnant, as the government's land price curbing measures continued to work as a drag. In this situation, the general deterioration of economy came as a final straw. The construction slump was made even worse by the existence of the "owner/developer" system, a construction system particular to Korea. Under this system, the company that plans a project undertakes to construct it for itself. Thus, in many apartment and office building projects, the construction companies and developers are one and the same[9]. Under this system, unsold apartments and office buildings directly affect the business positions of the construction companies.

Thus, 145 construction companies saw their bills dishonored in 1995. Woo Sung Construction

Corp. was already bankrupt in that year, at a time when the Korean economy was still celebrating its success. This group placed 27th on the asset list of Korean business groups. The situation further deteriorated in later months. As many as 196 construction companies passed bad checks in 1996, and 291 in 1997, meaning 7.4% of the entire number of construction companies[10]. Among them were major companies such as Dong Shin, Kun Yung, and Hanshin Construction, all of them owner/developers which built and sold homes and apartments.

Following the construction companies, steel makers which had deep involvement in construction fell into crisis. In January 1997, the Hanbo Steel group became the first major firm to collapse, followed by Sammi Steel Corp. in March the same year. The critical business situation of the Kia group in July was due to the surfacing of Kia Special Steel's accumulated losses.

2.1.3.(3) Lowering domestic demand and falling export prices: the oncoming of crisis

In 1997, domestic economic activities continued to fall, with firms producing for the domestic markets beginning to suffer from a serious business deterioration. The chaebol which went bankrupt in 1997 had affiliates engaged in retail and distribution, service and real estate, in addition to the construction and steel industries which had expanded rapidly since the early 1990s, and also had high debt-equity ratio (Table 2-3). Exports were expected to be the only bright spot, but the figures were disappointing despite the gradually depreciating won. The still weakening yen and the Asian economic crisis were the major adverse factors at work, but the effects of these factors were amplified by falling export prices. As Fig.2-6 illustrates, Korea's exports increased at a rapid pace in volume from 1996 through 1997, but given falling export prices, the export value did not increase satisfactorily. This reflected the ironic fact that intense export drives of Korean firms had inordinately pushed down the international price levels of their own mainstay products. This applied particularly to semiconductors, steel products, and petrochemicals sold on the Asian markets, a phenomenon visible since the end of 1996. Thus exports failed to help improve the performance of Korean firms.

Then a series of major bankruptcies kicked off a negative chain reaction. Banks found themselves with large non-performing loans and moved to collect their outstanding loans from borrowers. This drove the borrowing firms into bankrupcy, further adding to the non-performing loans. Given the high debt-equity ratio of Korean firms, as well as the widespread practice of mutual provisions of credit guarantees by in-group firms (as explained in chapter 1), the insolvency of one company in a business group would immediately lead to the bankruptcy of the entire group. One major bankruptcy after another occurred, placing unbearable burdens on the banks. Worse still, as information about bad loans was disclosed, the government hurriedly turned to half-baked countermeasures, only to undermine the international financial community's confidence in Korea's economic governance. The government imposed "no bill-dishonoring accords"[11] on firms and virtually shifted the Kia group's ownership to the state. All this led to a torrential exodus of funds, and brought on the currency crisis.

2.1.4 Problems of industrial structure and organization

2.1.4.(1) Plant and equipment-dependent development

For the real sector of the economy, the current crisis emerged in the following sequence. The rapid export growth in 1994-95 and the abolition of the government's industrial regulation policies generated an overheated investment and entry race, followed by an increase in the current account deficits in 1996. The economic downturn, the rising of interest rates and the devaluation of the won since 1996 hit the domestic market oriented industries such as construction, steel and distribution and retail. In 1997, the vicious spiral of the financial difficulty facing firms and the increase of banks' non-performing loans of banks led to the currency crisis. The rapid export growth and overheated investment in the mid-1990s reflected the reaction of Korean firms to the change of comparative advantage caused by wage increases. The housing boom and the growth of domestic market-oriented industries was also brought about by the increase in personal incomes and assets. Considering these factors,

Table 2-3 Chaebol Groups That Became Defunct in 1997

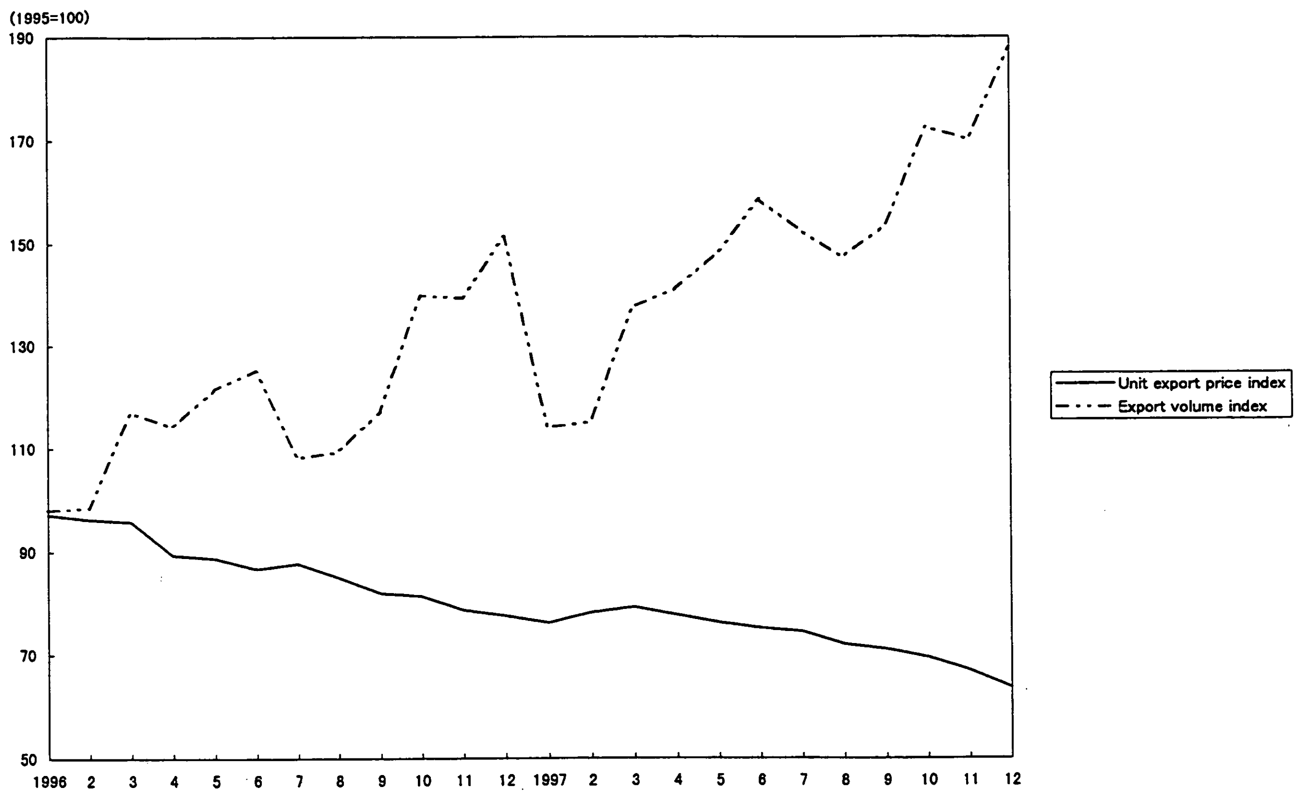
	Ranking	Debt/asset ratio 1995	Debt/asset ratio 1996	In-group firm(s) triggering the group crisis
Kia	7	422.9	525.6	Kia Special Steel (steel)
Halla	12	3,482.7	2,885.7	Halla Industry (shipbuilding)
Haitai	19	688.9	656.4	Haitai Industry (rolling stock)
New Core	26	851.3	1,266.4	New Core (department store)
Jinro	27	2,714.2	2,334.1	Jinro Construction (construction), Bestore (convenience store)
Dainong	34	—	Excessive Liability	Dainong (textile), Midopa (department store)
Hanshin	50	597.3	597.9	Hanshin Construction (construction)
Hanbo	14*	1,136.6	—	Hanbo Steel (steel), Hanbo Construction (construction)
Sammi	26*	—	Excessive Liability	Sammi Steel (steel)
Ssang Bang Wool	—	—		Ssang Bang Wool Development (resort development)
Average of 30 major chaebols		**343.6**	**388.7**	

Note: Ranking is based on assets in 1996; ranks with asterisks are for 1995 and the rank unknown with - .
Source: Made from *Shinsanup Yungoowuon, Hanguk 30dae chaebol Jaemoo Boonsuk* (The financial analysis of top 30 chaebol in Korea) in relevant years and newspaper reports.

the economic crisis can be understood a aberration which occurred when Korea reached a certain stage of development and entered into the process of transition to a new industrial structure.

The issue here entails the direction of development of the Korean industrial structure. As regards the manufacturing industry, labor-intensive industries lost their competitiveness due to the rapid wage increase in the second half of the 1980s. In their place, the semiconductor, chemical, oil refining, synthetic fibers, steel, automobile, and shipbuilding industries rose to leading positions. These are all capital-intensive industries which benefit from economies of scale. They rose to their commanding positions for two reasons. First, all except the semiconductors were industries which had been promoted by the government since the 1970s, and therefore were already fairly well rooted in the Korean economy. Second, these were all industries suited to the chaebol groups, with their great capital mobilizing capacities. It should also be pointed out that Korean industry had had to run very fast, and thus had had little time to sufficiently accumulate its own technological capabilities. In

Figure 2-6 Unit Export Price and Export Volume Indices



Source: Bank of Korea, *Economic Statistics Yearbook*, 1998.

addition, due to the serious distrust characterizing industrial relations at major enterprises, the workshop situation lacked the organizational flexibility to encourage the formation of worker skills on a broad basis. Besides, the networks of small and medium manufacturers were not mature enough to allow for the production of a large variety of products, especially industrial machines, in small lots. For these reasons, the Korean economy had to opt for mass production based on a small number of product lines using technologies fixed by the equipment itself.

This type of industrial formation had problems which, I believe, eventually led to the current account deficits and oversupply that finally brought on the current crisis. First, it tended to lead to excessive investment competition into plants and equipment among enterprises, all of them pursuing economies of scale. This was what actually happened. The adverse effect of this was multiplied by the race for entry. In the fierce entry rush following the lifting of restrictions, newcomers had to make large investments to compete with the insiders, and the insiders had to counter them through preemptive investment. Second, equipment investment drives led straight away to burgeoning imports, since the Korean industrial machinery industry was still unable to supply all the necessary equipment. Third, all leading Korean industries were operating precisely in areas where their Japanese counterparts were still very much competitive. Because their products had to compete head-on with Japanese products on the international market, their competitiveness was determined largely by the dollar-yen exchange rate. Fourth, some of the leading industries' products were types of goods which were exposed to bumpy price fluctuations. As the result of capacity expansion, Korea became the global price setter for some of these products. But this created the possibility of Korean export drives inviting drops in international prices, to the detriment of the Korean manufacturers' profit positions.

2.1.4.(2) Chaebol reform and tasks ahead

The current chaebol reform, centering on production line swaps, is intended to resolve these structural problems of the Korean industrial formation. The reform is based on the perception that the practice of each and every chaebol group making a full range of products was brought on a wasteful dispersion of managerial resources, undermining the competitiveness of each of the industries involved. To remove this weakness, each chaebol is being encouraged to specialize in a particular business line, and to sell its ancillary lines to, or swap them with, other chaebols. The government had been trying to promote business specialization for some time, but the chaebol side failed to respond positively. However, this time, the government has made it mandatory for each chaebol group to reduce its debt-equity ratio to 200% or less. This decree is forcing chaebol groups to split off or sell some of their affiliated firms or subsidiary firms because they need additional cash to satisfy the debt-equity requirement. It is also said that the government is applying strong pressure on the chaebol groups to accelerate their business line swaps. Already, LG has declared that it will sell its semiconductor sector to the Hyundai group, and Samsung and Daewoo made a agreement to swap Samsung's automobile sector with Daewoo's electronics sector (Table 2-4).

The swaps, however, have not been without problems. Though financial institutions are supposed to play the role of mediators, in actual practice it is the government that has used its power to get things done. This goes against the general policy of reducing the government's role in economic management. Also in semiconductor, chemical, and automobile industries, purely domestic busi-

Table 2-4 Main Contents of the Industrial Structural Adjustment (as of end, Jan. 1999)

	Old entrants	Contents of structural adjustment
Automobiles	Hyundai Motors, Daewoo Motors, Kia Motors, Samsung Motors	Hyundai Motors bought Kia; Daewoo plans to buy Samsung in exchange for sale of Daewoo Electronics.
Semiconductors	Samsung Electronics, Hyundai Electronics, LG Semicon	Hyundai plans to buy LG.
Home electrical appliances	Samsung Electronics, LG Electronics, Daewoo Electronics	Samsung plans to buy Daewoo in exchange for sale of Samsung Motors.
Aircraft	Samsung Aerospace Industries, Hyundai Aerospace Industries, Daewoo Heavy Industries, Korea Airlines	Samsung, Hyundai, and Daewoo set up joint venture.
Marine engines	Hyundai Heavy Industries, Samsung Heavy Industries, Korea Heavy Industries	Korea Heavy Industries plans to buy Samsung's equipment.
Rolling stocks	Hyundai Precision, Daewoo Heavy Industries, Hanjin Heavy Industries	Three set up joint venture.
Electric generators	Hyundai Heavy Industries, Samsung Heavy Industries, Korea Heavy Industries	Korea Heavy Industries plans to buy equipment of Hyundai and Samsung.
Oil refining	Hyundai Oil Refining, Han Wha Energy, SK, Ssangyong Oil Refining, LG Caltex	Hyundai plans to buy Han Wha.

Source: *Korea Economic Daily*, Dec. 22 1998; data revised.

ness consolidations can hardly have real effects at a time when alignments and consolidation schemes are underway between giant corporations on a global level. Since 1998, Korean industries have been actively inducting capital from abroad mainly to meet their financing needs, but from now on it will become necessary for them to begin to craft strategic and organic partnerships with foreign firms. In the long-term perspective, they also need to create flexible production systems suited to skill formation, and no longer to rely on technology fixed to equipment itself. For this to happen, appropriate industrial relations need to be created and efforts made to organize networks between large and medium and small enterprises, as well as among medium and small enterprises themselves, for the effective division of labor.

2.2 Taiwan

The Taiwan economy remained stable in the midst of the Asian economic crisis, but in the second half of 1998, quite a few enterprises and financial institutions became insolvent. Does this mean that the Asian economic crisis has at last caught hold of Taiwan? Let us examine this question.

Our conclusion is that the recent spate of bankruptcies in Taiwan is of a limited nature and that Taiwan is likely to evade crisis. As is argued in Chapter 4, the recent troubles are not likely to lead to the collapse of the Taiwanese financial system as a whole. Complementing the argument developed fully in Chapter 4, this section is devoted to analyzing of the problems that cropped up in the second half of 1998.

Table 2-5 Failures of General Companies and Financial Agencies in Taiwan (2nd half, 1998)

	Failures of general companies and financial agencies
End, July	An Feng group passed a bad draft.
Mid-Sept.	Ban Yu Paper Mill Co. passed a bad draft.
	Kuo Rong Enterprise Co. passed a bad draft.
End, Sept.	Tong Long Metal Industry Co. failed to pay stock prices.
Oct. 1	Wellroc Enterprise Co. passed a bad draft.
Oct. 13	C.C. Lin, the chairman of Rosa Food Co., passed a bad draft.
Oct. 30	Luo Chieh Construction Co. passed a bad draft.
Nov. 2	Lei Chu Enterprise Co., a member of the Panvest group failed to pay stock prices.
	The New Magnitude group failed to pay stock prices.
Nov. 3	Central Bills Finance Co. passed a bad draft.
Nov. 5	Hong Fu Bills Finance Co. ran out of operational fund; the day after several banks decided to buy 50% of its stock.
Nov. 9	The Han Yang group's leader H.F. Hou passed a bad draft.
Nov. 11	Shao Mei Food Industry Co. and Universal Components Co., both owned by S.N. Tseng, passed bad drafts.
Nov. 16	The Victor Taichung Machinery Works group failed to pay stock prices.
Nov. 24	Tai Yu Products Corp. and Taichung Business Bank, both affiliated with the Kwang San group defaulted on debts; Taichung Business Bank was taken over by Central Deposit Insurance Corp.
	Kuo Bao Securities Co. failed to pay stock prices.
Dec. 1	Two construction companies in Taichung passed a bad draft.
Dec. 8	S & T Copper Industries Co. applied for preservative measures and obtained court approval.
Dec. 11	Spot Technology passed a bad draft.
Dec. 21	The Ever Fortune group decided to transfer the management right of Pan Asia Bank to the KMT business sector.
Dec. 28	Jen Hsiang Construction Co. passed a bad draft.

Source: Made from newspaper reports.

2.2.1 The processes

The series of bankruptcies that occurred in the second half of 1998 began when the An Feng group passed a bad draft toward the end of July (Table 2-5). Nothing serious occurred in August, but in September and October, the number of bankruptcies increased rapidly. The situation hit bottom in November, but still in December the troubles did not seem to be subsiding.

The Taiwan economy, of course, was not immune to the crisis in the neighboring countries. Economic activities began to slacken in 1998, as Taiwan's export decreased. It is no wonder that company bankruptcies would occur in these circumstances. But the situation in the second half of 1998 was alarming because financial institutions had collapsed. Two "bills finance companies" (a unique type of Taiwanese financial institution) and two banks came to a standstill. Many people suspected these failures might be a sign of crisis in the Taiwanese financial system, rather than a sign of general economic downturn. In fact, structural factors were certainly at work behind the series of company and bank failures.

In most of these cases, the business groups had become insolvent after exhausting their funds in intense operations to buy member firms stock shares in order to shore up the prices of these shares. The "failure to settle stock transactions" as indicated in the table means that the firm involved could not afford to pay for the shares it had purchased. Similarly, most of the bills that were dishonored had been issued to obtain cash to buy shares on the stock exchange. Why then had the business groups worked so hard to prop up their member firms' stock prices? It was because they had borrowed money, using as security the stocks of their member firms. A fall in share prices could cause them be requested to provide additional security.

Behind this was the practice of constantly boosting stock prices beyond rational levels. It was in a sense a bubble-generating mechanism involving not only ordinary business firms but also financial institutions. The slowdown of the economy, which was caused by external factors, disturbed the operation of this mechanism. Consequently, the bubble burst. Many of the firms who had borrowed against ever soaring stock prices failed, bringing down related financial institutions in their wake. In the following section, let us examine the workings of this bubble-generating mechanism.

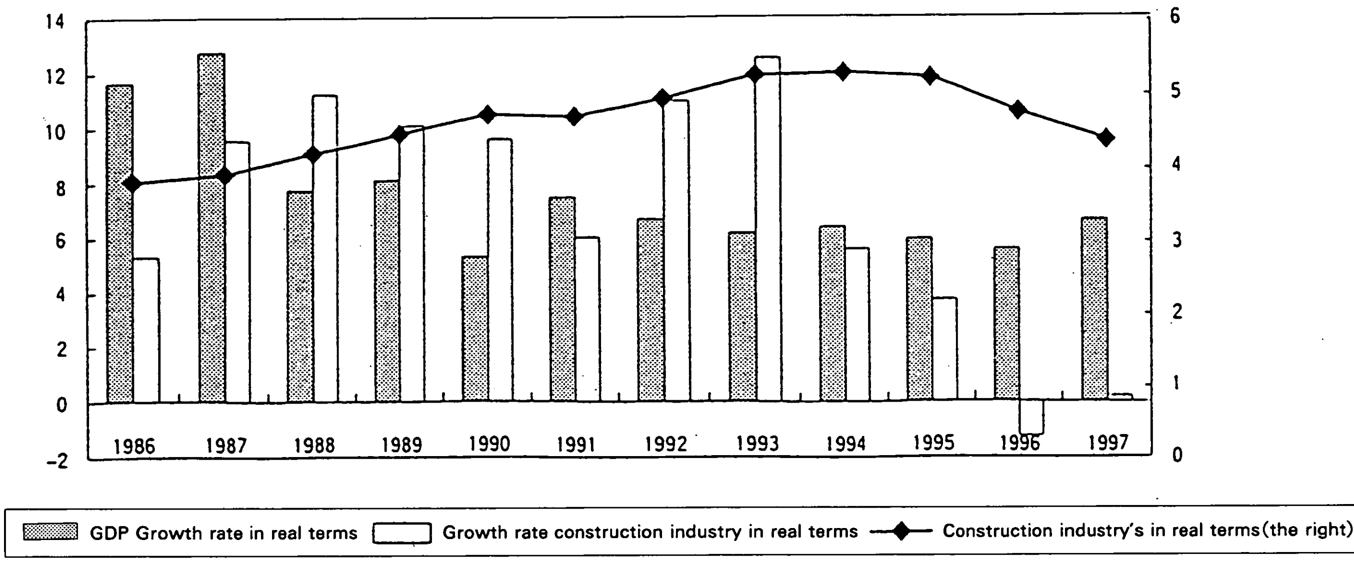
2.2.2 The rapid growth of the construction industry as the remote origin of the crisis

Many of the firms that went bankrupt in the second half of 1998 were construction companies. The U-Land group, Luo Chieh Construction Co., the New Magnitude group, the Han Yang group, and the Kwang San group were all business groups with construction companies at their core. Of the financial institutions that went into insolvency, Central Bills Finance Co. had as its major stockholders Luo Chieh Construction Co., the New Magnitude group, and the Han Yang group, while Hung Fu Bills Finance Co. was a member of a business group organized around Hung Fu Construction Co. and the Taichung Business Bank (now Taichung Commercial Bank), which was controlled by the Kwang San group. The Ever Fortune group, which set up Pan Asia Bank, was basically a construction group.

Before their bankruptcies, all these groups had been growing very rapidly with the prosperous construction business as the backdrop. The annual growth rate of the construction sector in fact exceeded Taiwan's GDP growth rate in all years from 1988 through 1993, with the exception of 1991 as shown by Figure 2-7. The construction business achieved double-digit annual growth in 1988, 1989, 1992, and 1993.

The expansion of the construction industry of course meant the growth of construction companies. Table 2-6 shows the ranking of Taiwanese companies. This table shows that the same construction companies stayed in the top two in the construction business from 1985 through 1997, but their ranking on the general list of Taiwan business fell consistently. It is noted that the positions of the fifth and lower-ranked construction companies on the construction business list (not necessarily the same companies) rose on the general list. This illustrates that it was not the top ranking construction firms, but rather the lower ranked firms, which grew the fastest. While the construction industry expanded very rapidly during that period, the companies were accumulating huge capital for a further leap forward.

Figure 2-7 Construction Industry's Growth Rate and Its Share in GDP



Source: Made from DGBAS, *National Income in Taiwan Area, R.O.C.*, 1998.

2.2.3 Magic tricks worked by "shell companies"

Thriving construction was not the only factor that contributed to the development of the above-mentioned business groups. They invented a new mechanism to further increase the funds that had originally been accumulated through the construction business. This mechanism is called the "shell company."

A shell company typically comes into being in the following manner. A group identifies a company whose stock is listed on the stock exchange but whose shares prices are low. The group buys the company's shares and takes over its management. Then, the group shifts a profitable operations to the company (in most cases construction business). Consequently, the firm's share price goes up. At this point, the stock is augmented or the purchasing group borrows money using the company's shares as security. The group can obtain large funds quite easily in this manner[12]. Usually the business groups simultaneously carry out capital augmentation and borrow money.

Shell companies came into fashion in Taiwan in the middle of the 1990s. In the past five years, 28 listed companies have been turned into shell companies by 22 entrepreneurs, 19 of them construction businessmen, according to Hsu[13].

In Taiwan, the practice of using shell companies was first introduced by H.F. Hou of the Han Yang group, who earned the nickname of "the Shell King" or "the Shell God." Using this method, he took over Kuo Yang Construction Co. in October 1995, and Pan-International Industrial Corp. in November of the same year. Also, Luo Lu-Huang of Luo Chieh Construction Co., Mas Wu of the New Magnitude group , and C.J. Tseng of the Kwang San group have become well known for their active and effective utilization of the shell company strategy[14].

2.2.4 The completion of the bubble-generating mechanism

The essential element of the above-mentioned mechanism is obtaining loans or credit lines from financial institutions. For a business group, a shortcut to this is to have its own bank. We will now look at how the business groups that became defunct had organized their own financing arms. The Han Yang, New Magnitude, and Luo Chieh Construction groups jointly set up Central Bills Finance Co., and the Ever Fortune group created Pan Asia Bank. The Hung Fu group headed by

Table 2-6 Business Ranking of Construction Firms

10 leading construction firms	Sales (in 1 million NTD)	General business ranking
1985		
1 Ret-Ser Engineering Agency	27,840	9
2 Bes Engineering Corp.	9,460	30
3 Cathay Construction Co.	6,023	48
4 Pacific Construction Corp.	2,683	124
5 San Ching Engineering Co.	2,058	172
6 Shu The Construction Co.	1,643	228
7 Prince Housing Development Corp.	1,403	273
8 Fu Tsu Construction Co.	1,277	300
9 Sun Full Construction Co.	1,200	322
10 Chang-Shun Construction Co.	798	450
1995		
1 Ret-Ser Engineering Agency	29,700	31
2 Bes Engineering Corp.	14,591	80
3 Pacific Construction Corp.	13,409	90
4 Fu Tsu Construction Co.	7,047	176
5 Continental Engineering Corp.	6,689	190
6 Prince Housing Development Corp.	6,230	205
7 Cathay Construction Co.	5,649	216
8 Chief Construction Corp.	4,959	247
9 Hung Sheng Construction Co.	4,915	250
10 Tuntex District Corp.	4,730	72(261)
1997		
1 Ret-Ser Engineering Agency	22,912	63
2 Bes Engineering Corp.	18,166	81
3 Pacific Construction Corp.	9,620	161
4 Kuo Yang Construction Co.	9,030	167
5 Chief Construction Corp.	7,366	215
6 Chie-Ho Engineering and Development Co.	7,214	220
7 Tuntex District Corp.	7,032	75(224)
8 Fu Tsu Construction Co.	6,484	241
9 Continental Engineering Corp.	6,392	243
10 Prince Housing Development Corp.	6,132	256

Note: The original source for 1995 and 1997 differentiates builder & developer and contractor, but they are here shown consolidated. In 1985, Ret-Ser Engineering Agency and Bes Engineering Corp. were state owned corporations ; the latter was privatized in the 1990s.
Tuntex District Corp. has business lines other than construction. The figures in the parentheses are the ranks only for sales of construction business on general ranking list.
Source: Made from China Credit Information Service, *The Largest Corporations in Taiwan*.

Hung Fu Construction Co. established Hung Fu Bills Finance Co. and the Kwang San group took over Taichung Business Bank which was originally an independent bank (*Economic Daily*, Nov. 13, 1998. Quotations from newspapers are all from 1998 issues).

It is of course easier for business groups to obtain loans and credit lines from their in-group financial institutions than from other institutions. The insider institutions do not screen projects strictly, nor do they ask for large security, when they are dealing with in-group companies. In fact, these institutions often extend loans or offer guarantees to in-group firms without even taking collateral. A case in point is the Taichung Business Bank. After being taken over by the Kwang San group, it provided loans liberally to Kwang San-affiliated firms, as its chairman of the board, C.J. Tseng, who was the head of the Kwang San group, dictated policy, even ignoring disapproval in the bank's internal screening process or protest by its vice-board chairman[15]. A similar corrupt relationship was also suspected between the Ever Fortune group and Pan Asia Bank, and because of this scandal the Ever Fortune group was forced to withdraw from the management of the bank.

Bills finance companies are financial institutions unique to Taiwan. Their major business is the underwriting and guarantee of commercial papers. They were allowed to guarantee loans up to 12.5 times their equity (now reduced to 10 times). Central Bills Finance Co., which was dubbed a "cash dispenser," lavished credit guarantees onto the Han Yang group and other stockholders[16]. Table 2-7 shows that the Han Yang and the New Magnitude groups each cashed about 2 billion New Taiwan dollars from Central Bills Finance Co., some ten times the apptoximately 200 million New Taiwan dollars that they invested in it. The failure of Hung Fu Bills Finance Co. was triggered by Central Bills Finance Co.'s failure, but path to its failure had been paved by the deteriorating performance of the Hung Fu group firms, with which it had irregular relations[17].

Another way of drawing money from financial institutions is, as was earlier said, to borrow using the shares of in-group companies as security. In the business groups listed in Table 2-5, the Panvest and Victor Taichung Machinery Works groups used this method, as did the above-mentioned groups, although they did not have construction companies at their cores, nor did they have shell companies under their control. These two groups had listed companies among their original members, and overborrowed using the shares of those in-group firms as security. Excessive borrowing led to their insolvency, just as it did for the groups using the shell company method.

This type of borrowing can become widespread only when the banks involved are willing to lend. It is suspected that some banks lent money using a higher-than-usual assessment rate of collateral, on the assumption that the stock prices would continue to spiral[18]. It was also not uncommon for the same shares to be used as security for loans from more than one bank (*Economic Daily*, Nov. 18).

It appears that most of the funds made available in this manner were again used to buy stocks[19]. The money was thus recycled into the stock market, pushing stock prices up still further, and the rising stock prices in turn made it possible for the borrowers to borrow more to buy more stocks, causing stock prices to skyrocket. All this amounted to the creation of a veritable bubble-generating machine[20]. The 1998 crisis situation is different from previous crises in that financial institutions, and not just general business firms, went bad, and this happened because of their commitment to these speculative stock market operations.

But it was once believed that Taiwanese financial institutions were rather conservative, and enjoyed a relatively stable position under the government's strict supervision. Why then did these problems occur to them? The basic reason was financial liberalization.

In Taiwan, a phased financial system liberalization was carried out in the 1990s. Most relevant in this context was the liberalization of the establishment of new financial institutions. Regulations on the establishment of new banks were eased in 1990, and one new bank after another was set up beginning in 1991. The number of banks thus increased from 19 at the end of 1990 to 40 by August 1998 (including credit cooperatives- and investment and trust companies-turned banks but not including medium business banks). Regulation on bills finance companies was eased at the end of 1994, and their number jumped from three to sixteen by August 1998.

Financial deregulation had two negative impacts. First, it made it possible for business groups

Table 2-7 Central Bills Finance Co.'s Claims on Its Stockholders

	Share-holding ratio	Officers	CBFC's claims on stockholders (in 100 million NTD)
The Han Yang group	11%	Director1, Managing director1	19.86
The New Magnitude group	10%	Auditor1, Director1	19.47
Luo Chieh Construction Co. and Luo Lu Huang	1%		2.13
Total (A)	22%		41.46
Stockholders believed to be related to the above three groups (B)	27%	Director 1	—
A+B	50%	—	—

Source: Tu, C.H., "Jieke Daheng de Yaoqian: Zhongyang Piaoquan Baizai Shei Shouli" (Shell company bosses' geese that lay golden eggs: Who caused the failure of Central Bills Finance Co.?), *Caixun*, Dec. 1998.

to set up and operate their own financial arms. Before liberalization, most of the banks were publicly owned, and private business groups were not allowed to venture into the banking business. The three bills finance companies that existed before liberalization were backed by publicly owned banks. Private business groups were only allowed to own and manage investment and trust companies, credit cooperatives, and insurance companies. Even in these business areas, it was difficult for them to establish new ventures.

The liberalization allowed private business groups to own banks and other financial institutions. The number of banks and bills finance companies increased precisely because the business groups aggressively entered the financial business. Most of the new banks and new bills finance companies were thus creations of a single business group or more than one group working together[21]. Of the four financial institutions that failed, three had been established recently in this manner.

But the problems were not confined to this specific category of banks. Lending using shares as security was done by banks in other categories, including ones which existed before 1990. Quite a few banks of various types in fact had sizable loan balances with the bankrupt companies[22]. It has generally been observed that following liberalization, Taiwanese banks became more aggressive in their lending operations and looser in their risk management.

This was partly because competition intensified as more financial institutions joined the market. Banks, in particular, had to engage themselves in fiercer competition as direct financing developed. It is true that, as stated in Chapter 4, Taiwan banks, and even the newly established ones, still retained their conservative character. But as competition became sharper following liberalization, they certainly had to lend to riskier projects than before. Obviously the new banks had to run higher risks than the old ones.

2.2.5 The scene darkens

Dark clouds were hanging over Taiwan even before the Asian economic crisis. Already in 1994, the construction industry, around which the business groups that are now insolvent were organized, began to see its growth rate slip below the GDP growth rate. In 1996, the construction industry even experienced minus growth. Its 1997 growth rate was a meager 0.25%. Taichung district suffered particularly heavily. This is attested to by the fact that several of the groups that recently failed were Taichung-based groups, such as U-Land, Kwang San, and Ever Fortune.

The business groups in the face of the crisis brought about by the deteriorating performance of their main business lines, turned to the stock market in a desperate effort to eke out profits[23]. The crisis, however, would not have surfaced if the stock prices had continued to rise. If it had, they would have earned profits and would not have been asked to offer more security for their borrowing. But all bubbles are doomed to burst. And this one did. Moreover, in 1998 the Taiwan economy as a whole slipped into a stagnant phase under the impact of the Asian economic crisis, and this multiplied downward pressure on the stock prices. Starting in April 1998, the stock price index began to drop, if slowly. The bubble-generating mechanism then began to work adversely, driving the companies and financial institutions involved into a tight corner. It was no longer possible to earn profits on the stock market. On the contrary, surety values diminished as stock prices went down, and the lenders began to urge borrowers to offer more in collateral. To cope with this situation, the borrowing business groups desperately tried to protect the share values of their in-group firms by buying shares, however, they ran out of money and collapsed.

2.2.6 Government responses and the role of KMT-affiliated enterprises

As is obvious from developments, the failures of business firms and financial institutions in the second half of 1998 can be attributed mostly to their own misconduct. Suspicions also exist that in the last phase of the failures, some entrepreneurs devoted themselves to the protection of their personal assets at the sacrifice of their companies' interests. Thorough investigations are required to determine whether they were responsible for the disastrous consequences[24].

Whatever the case may be, the government is now in a position where it must take measures to remedy this situation, as the trouble has come to envelop financial institutions and to affect the whole of society. So far government measures have been implemented for the safeguarding of the financial and economic systems in three areas —immediate steps to deal with the failing companies and financial institutions, measures to support stock prices, and measures to stimulate the macro economy.

To deal with the bankrupt financial institutions, the government took the role of coordinator among the parties concerned and began to work out a rescue package. On November 3, it announced a five-point rescue package, which laid out the principles for government responses to companies and financial institutions in crisis (*Economic Daily*, Nov. 4). On the following day, it decided to set up a special section to deal with the affair inside the Ministry of Finance. It also issued a comprehensive policy package, which included a debt repayment moratorium for a maximum of six months for debt-saddled companies whose main business was being operating normally (*Economic Daily*, Nov. 6). Implementing these policies, the government had decided by mid-December to rescue 18 insolvent companies, including Victor Taichung Machinery Works Co.(*China Times* and other papers, December 17). In order to protect the stock prices, the government announced a five-point policy on November 12. As part of this policy, a task team was organized, and 200 billion New Taiwan dollars were pumped into the stock market (*Economic Daily*, November 13). But as of the middle of January 1999, this policy has had a slight telling effect on the market. Whether it can help shore up the stock market is open to doubt. As regards macro economic countermeasures, the government decided on a series of measures on December 24, including the extension of government loans totaling 50 billion New Taiwan dollars to support investment in plant automatization, measures to increase to 40 billion New Taiwan dollars the Small and Medium Business Credit Guarantee Fund's credit line to small and medium business, and the introduction of new government housing loans and low-interest loans to business firms on the basis of postal savings (*Nihon Keizai Shimbun*, Dec. 25). But observers are generally pessimistic regarding the immediate future of the Taiwan economy. As they are uncertain about the future of their borrowers, financial institutions have been reluctant to lend actively. Under these circumstances, it is doubtful whether government countermeasures will prove to be truly effective.

Another interesting factor at work in this process has been the role of KMT-affiliated businesses. Taiwan was ruled by the Kuomintang (hereafter KMT) dictatorship until democratization began in the second half of the 1980s. This dictatorship, which was called the "party-state system," was based on premise a unity between the state and KMT, as well as on the supremacy of the party. As part of this system, the KMT owned and ran its own businesses. Even following the near complete democratization, KMT-affiliated businesses has survived as a legacy of the past.

Though this type of business can hardly be justified under a democratic regime, it is interesting to note that KMT business bodies did play the role of rescuers in the process of crisis. When the Ever Fortune group was forced to abandon Pan Asia Bank, it was a KMT company that offered to buy it. Also, a KMT company took over the management of Taiwan Family Mart Co. by buying its shares from the Panvest group (*Economic Daily*, Oct. 22). There are many other cases in which KMT business were asked to rescue firms on the verge of bankruptcy. The KMT business bodies, which formally are private companies, can act promptly and flexibly in this kind of operation. In substance, the KMT business wing complements the government which cannot act so quickly and flexibly.

However, the question of whether KMT companies are effective saviors or not remains to be seen. We need to wait and see if they can succeed in reconstructing the half-defunct firms they have taken over. This is not the first time KMT businesses have acted as rescuers. Some years ago, one of the firms took over crisis-ridden Kaohsiung Business Bank, but has not been fully successful in rehabilitating it (*Economic Daily*, Dec. 22).

2.2.7 Future perspectives

How far will the business and banking failures of the second half of 1998 affect the whole of Taiwan in the foreseeable future? It is difficult to make prediction in the absence of full information and given a number of uncertain factors. However, as far as available current information indicates, it seems highly likely that the whole of the Taiwanese economy will avoid being involved.

The Ministry of Finance has estimated the balance of loans involving stock shares as security at 500 billion or more New Taiwan dollars (*Economic Daily*, Nov. 18). The Taiwanese banks hold a total loan balance amounting to 9.8 trillion New Taiwan dollars, so the loans in question represents 5% or so of the total. This is not a negligible share, but is not big enough to doom the entire financial system since not all of these loans are expected to become uncollectable.

Though we cannot offer precise of this, we observe that the business groups that failed were the exceptionally indulgent players in the stocks-leveraged operations and the abuse of bills finance companies. This observation is based first on the fact that Taiwanese companies generally do not depend overly on borrowing. Their debt-equity ratio is still very low. Second, as regards the problematic bills finance companies, the two that failed, namely, Central and Hung Fu, were those which had the closest relations with construction groups[25].

Some factors that go against this optimism should not, of course be forgotten. There are still firms which have not failed yet but are on the same risky track as those that did. The possibility should not be denied that these firms could go bankrupt, triggering a general crisis.

It would be unwise to exaggerate the uncertainty facing the Taiwanese economy, however. We need to continue watching it carefully, keeping in mind what has happened so far.

Notes:

1. See Janggyu Lee et al, *Sillok Yookkong Kyungjae*, (An inside story of the Fifth Republic) 1995, p.178.
2. Ministry of Construction and Transportation, *Kunsul Kyotong Baeksu 1993-1997* (Annual report on construction and transportation), 1998, p.582.
3. Regarding the so-called "distribution revolution" in this period, see Yukiko Fukagawa, *Kankoku Senshinkoku Keizairon* (Korea toward the developed economies), Nihon Kehizai Shinbun-sha, 1997, pp. 240-249.
4. Regarding the Korean industrial policies, see Sunghoon Lee et al, *Hanguk ui Sanup jungchaek - Sanup Jungchaek Kwanryung Charyojip* (The industrial policy in Korea: Handbook of policies about industrial structure), 1989, and Makoto Abe, "Kankoku no Juukagaku Kougyouka: 70nendai no Juukagaku Kougyouka Seisaku to 90nendai no kadai" (Heavy and chemical industrialization of South Korea: Heavy and chemical industrialization policy of the 1970s and prospects for the 1990s) in Kayoko Kitamura ed., *Higashiajia no Sangyoukouzou Koudoka to Nihon Sangyou* (Upgrading of industrial structures in East Asia and the Japanese Industry), Tokyo: Institute of Developing Economies, 1997. For details of this development, see Makoto Abe, "90 Nendai Kankoku no Sangyoukouzou Chousei to sono Kadai-Sekiyukagaku Sangyou wo chuushin ni" (Korean industrial structural adjustment and Prospects: with a focus on the petrochemical industry) in Kayoko Kitamura ed., *Higashi Ajia no Kougyouka to Nihon*

Sangyou no Shin-kokusaika Senryaku (The industrialization of East Asia and the new internationalization strategy of the Japanese industry), Tokyo: Institute of Developing Economies, 1995.

6. For details of this rationalization measure, refer to Federation of Korean Industries, *Hanguku ui Josun Sanup* (Korean shipbuilding industry), 1997, pp.101-103, 112-114.
7. op. cit., pp.127-146.
8. For details of the arguments, see Seungmoon Liu et al., *Woori Nara Jadongcha Sanup ui Dangmyun Kwaje wa Sanupjojik Jungchaek* (The immediate tasks of our auto industry and industrial organization policies), Seoul: Korea Development Institute, 1994, pp. 38-59.
9. The owner/developer system is said to be widely practiced in connection with the construction of factories. See Kensetsu Keizai Kenkyusho (Institute of Construction Economy), *Beioukannichi no Kensetsusangyou Kouzou ni Kansuru Chousakenkyu Houkokusho* (Report on research and investigation on construction industry structures of the United States, Europe, South Korea, and Japan), 1995, pp.7-11, p.115.
10. This is the figure of general constructor. As for special constructor, the number of companies passing bad drafts in 1997 amounted to 1,058.
11. Under this accord, financial institutions grant grace periods for payment, and extend additional loans to the temporarily money-short companies. It was started in April 1997, when large-scale bankruptcies were taking place frequently. Financial institutions made the agreement to introduce this accord, but it was reported that the Ministry of Finance and Economy put pressure on them to do so. But this accord became a temporary elixir of life for the failing companies and increased the non-performing loan of financial institutions.
12. Hsu, Hsiu-Hui, "Hou Xi Feng, You Zhun Yin 'Xijin' Zuinashou-Jieke Qiguan: Youshou Zengzi Qiangdao Qian, Zuoshou Na Gu Qu Zhiya" (H.F. Hou and C.Y. Yu are the best collectors of money: The shell company scene: The right hand collects money through increasing capital, while the left hand borrows using the shares as securities), *Caixun*, April, 1998. Refer to a table on p.290 to see how widespread the shell company-based borrowing had become. According to this table, there were many cases of the entire stocks of shell companies being used as the security for borrowing.
13. Hsu, Hsiu-Hui., "Jiekegu Xingshuai Qishilu: Zong Shen Qianhai, Zang Shen Guhai" (Revelations of the shell companies' rise and fall: Money market as springboard and stock market as doom), *Caixun*, December, 1998, p.210
14. Regarding the friendship between H.F. Hou and Mas Wu, see Hsu, Hsiu-Hui, "Wu Zuo Qin Huohuo Dunxia Sanjia Shangshi Gongsi: Xinjuqun Jituan Dajianshi" (Mas Wu took over three listed companies: Examination of the New Magnitude group), *Caixun*, April, 1998; the relations between Wu and Luo Lu Huang are described in " Wo Zenyang Dong Liancheng Shipin de Naojin: Luo Lu Huang Gushi Fangshi Zongheng Tan" (How I will activate the brains of Ace Union Food Corp.: Luo Lu Huang talks openly about the stock and real estate market), *Caixun*, April, 1998.
15. Testimony by C.J. Yeh, vice chairman of the board of Taichung Business Bank, as reported in *Economic Daily*, Nov. 26. According to a report in the same newspaper dated Nov. 25, Taichung Business Bank had a loan balance of 6-7 billion New Taiwan dollars with in-group firms in the six months preceding the crisis. Of these loans, 70-80% were not backed by collateral.
16. According to *Economic Daily*, Nov. 26, The Han Yang group had a credit line of 1,986 million New Taiwan dollars with Central Bills Finance Co., which could be broken down categorywise into loans of 994 million in non-surety loans, 188 million in stocks, and 802 million in real estates.
17. Tu, Sherry, "Jinnian shi Chen Zheng Zhong Guanjian Nian: Hongfu Jituan Caiwu Zong Guancha" (This year is critical for C.C. Chen: Comprehensive observation on the financial situation of the Hung Fu group), *Caixun*, Sept. 1998.
18. Stocks used as security were valued using the lower of two figures —the average stock price over the three previous months, and the previous day's closing price. The assessment rate of collateral was 50% or so (Hsu, op. cit., p.289).
19. Hsu, op. Cit., p.212; Hsu, Hsiu-Hui, "Jiekai Wu Zuo Qin Gaoqian Shoufa: 'Jiekewang' Jihu Zhenkua Taiwan Gupiao Shichang" (Illustration of Mas Wu's money game method: The king of shell companies shakes the Taiwan stock market), *Caixun*, Dec., 1998, p.222.
20. This was not the only form of bubble-generating mechanism. For instance, banks provided loans without collateral to Wellroc Enterprise Co., observing that its foodstuff business was thriving, but the money made available was used through the firm's subsidiaries for stock operations. The firm's stock business failed, however, and the whole group went into bankruptcy. In this case, two thirds of its 4 billion New Taiwan dollars in loans were without collateral (*Economic Daily*, Oct. 24). This is another type of bubble-generating mechanism.
21. Regarding banks, refer to *Economic Daily*, Nov. 30, and about bills finance companies, to Hung, Chen-Yu, "Xin Piaoquan Gongsi Maobing Zong Guancha: Shei hui Chuju" (Comprehensive

observation on the new bills finance companies' defects: Who will withdraw?), *Caixun*, Dec., 1998.

22. Hsu, Hsiu-Hui, "Yiqiansibaiyi Jieke Dazhenhan: Dilei Qiye Zong Liangxiang, Liushijia Yinhang Zhunbei Chi Daozhang" (Shell companies' 140 billion New Taiwan dollars in vacillation: All mining companies have surfaced, and 60 banks are preparing for bad loans), *Caixun*, Dec., 1998.
23. Hsu, op. cit., p.210.
24. Company money embezzlement has been suspected in the cases of Tong Long Metal Industry Co. (*Economic Daily*, Nov. 14), the Han Yang group (Nov. 27), the Panvest group (Nov. 25), and the Kwang San group (*China Times*, Nov. 27).
25. Hung, op. cit., pp.180-181. Ta Ching Bills Finance Co. also had close relations with construction business, but as its management staff is professional, it will not repeat the mistakes of Central and Hung Fu, according to Hung.