

The Causes of the Korean Currency Crisis: Policy Mistakes Reexamined

Woo-Sik Moon*

Abstract

The Korean economic crisis was the joint product of government incompetence and the moral hazard behavior of banks and private conglomerates known as chaebols. Three kinds of policy mistakes could be ascertained. The first great policy mistake concerned the rigid exchange rate stabilization policy of the Korean government. The second mistake was the asymmetric regulation on the inflows and outflows of foreign capital and on short and long term borrowings. The third and most often forgotten policy mistake was the inability to deal with the rigidity of the labor market.

I. Introduction

Since the eruption of the Korean crisis, numerous studies on the causes of the crisis have appeared inside and outside Korea. They point out that the main causes of the crisis lay, to cite a few examples, in weaknesses in the financial system and governance (IMF(1997)), a

* Graduate School of International and Area Studies Seoul National University
San 56-1, Silim-Dong, Kwanak-Ku, Seoul #137-602, KOREA
Tel: 82-2) 880-8524, Fax: 82-2)886-6303 Email: mwoosik@sias.snu.ac.kr

government-led financial system (Krugman (1998)), sudden capital withdrawal by foreign creditors (Chang and Velasco(1998), Radelet and Sachs and Shin(1998)), and asymmetric regulation on capital movement (Kim and Rhee (1998)). Even though these studies differ in the precise causes of the crisis, they all agree that policy mistakes intermingled with the economic weaknesses of Korean economy have triggered and aggravated the crisis.

But, the problem in these studies is generally that they do not clearly identify specific policy mistakes committed by the then Korean government (except perhaps for Kim and Rhee). To not repeat the same policy mistakes in the future, it is therefore essential to focus on and clarify the possible policy mistakes or failures of the then Korean government, even though they were closely interconnected with the inherent weaknesses of the Korean economy. In fact, in this context, almost two years after the onset of the crisis in Korea, a Special Investigation Commission on the Causes of the Economic and Currency Crisis was organized in the National Assembly from January 15, 1999 until February 13, 2000, and very broad ranged hearings were started. In total, 31 institutions were required to present related documents, the total number of documents being 1346, and 9 institution had to report on the Hearings of this Commission during a one month period.

The purpose of this paper is double. One is to identify the 3 most important policy mistakes and in this context reexamine the causes of the Korean currency crisis, using the documents presented for the Hearings of the Special Investigation Commission, especially those of the Ministry of Finance and Economy (1998) and the Bank of Korea (1999(a), 1999(b)). This paper focuses on the mis-managed exchange rate policy of Korean government, asymmetric regulations on the inflow and outflow of foreign capital, and finally the rigid labor market as the 3 most important policy mistakes or failures of Korean government. Inappropriate government intervention and incompetence in coping with the liquidity crisis contributed to the dramatic loss of investor confidence and precipitated the collapse of the Korean currency. But what

transformed the initial liquidity problem into a true economic crisis was the reckless lending of Korean banks encouraged by asymmetric capital regulation and the enormous accumulation of debts by Korean enterprises (chaebols) resulting from the inflexible labor market.

The second purpose of this paper is to highlight one aspect of the Korean currency crisis that should deserve more attention. This is the failure of labor market reform. In fact, the over-investment of the chaebols and, consequently, the debt problem of these companies was criticized as one important cause of the crisis. This is no doubt an important feature of the Korean economy, but the debt problems of Korean companies are not at all new. They have existed for the last 30 years. Moreover, they are often attributed to be one of the reasons for Korea's rapid growth. Thus, the high gearing ratio can not be, itself, an important cause of the crisis. It resulted rather from the rigid labor market conditions. In particular, the labor market condition of the Korean economy characterized by a de facto life-time employment system combined with wage rate rigidity was the real culprit in causing the Korean economic crisis.

The organization of this paper is as follows. In section II, we chronologically summarize the development process of the Korean economic crisis. In section III, we discuss the possible mis-management of the exchange rate policy by government authorities. In section IV, we examine the reckless lending of Korean banks together with the asymmetric regulation on the inflows and outflows of foreign capital, and on the short and long term borrowing. In section V, we argue that the failure of labor market reform contributed to ballooning the debts of big companies and thereby aggravated the crisis. Finally in section VI, we summarize and present some conclusions.

II. The Road to Crisis: A Chronology

As 1997 began, general labor strikes broke out over revisions to the labor law, and the exchange rate of the yen suddenly began to

depreciate. Given that Korea had been experiencing continuing current account imbalances, there were increasing worries about the stability of the Korean economy. The first symptom of the crisis took place, on Jan. 23, with the collapse of the 14th largest Korean chaebol, Hanbo Steel

Table 1 summarizes in chronological order the developments of major incidents that took place in 1997.

The collapse of Hanbo seriously damaged the credit rating of the Korean economy. New loans to Korean banks were refused and previously approved loan agreements were cancelled. Also, the amount of foreign investment in the stock market fell during February, for the first time in 14 months since December 1995, reflecting growing concerns about the domestic industry.

The exchange rate against the US dollar went up and the speed of devaluation of the won accelerated with 1 US dollar reaching 897.1 won on March 29, the highest since 1985. Foreign exchange reserves dropped to the \$30 billion level and the general loss of confidence in the economic stability of Korea emerged as one of the most important issues.

At the same time, a chain reaction failure of large conglomerates followed. On March 19, the 26th largest chaebol, Sammi Group went bankrupt and filed for court protection. As banks were reluctant to lend, all Korean firms, large or small, soon experienced cash-flow problems. On April 21, the Jinro group, faced near collapse but was saved from bankruptcy due to an Anti-Bankruptcy Accord hastily imposed on the creditor institutions by the Korean government to prevent a ripple effect of collapse in the economy. Jinro's own paid in capital was only 4% of its asset value, the lowest among the thirty major conglomerates. Following the fall of Jinro, the New Core Group collapsed. Among this series of bankruptcies, the most significant was the collapse of the Kia Group on July 15. Given that the Kia Group specialized in automobiles and had invested in many related industries, the collapse of Kia turned out to be far more devastating than the Hanbo incident both domestically and abroad. Overseas credibility dropped to its lowest level

(Table 1) Developments of 1997 in Chronological Order

Major events	Exchange rate	Borrowing rate (Libor+spread), bp	Adjustment in Credit Ratings
97. 1. 23 Collapse of Hanbo Steel.	852.1→853.6	26→28	
97.3.19 Bankruptcy of Sammi (Court Reorganization)	879.8→883.8	38→42	2.20: Moody downgraded 3 Korean banks 4.18: S&P cut the credit rating of First Bank of Korea
7. 15 Bankruptcy of Kia	890.0→892.8	50→56	
8.5 Thailand calling for IMF support	889.3→891.6	50→56	
10.8 Indonesia calling for IMF support	914.2→914.5	80→86	10.2: S&P cut the credit ratings of 3 Korean banks
10.23 Collapse of Hong Kong Stock	915.5→925.5	90→82	10.24: S&P cut the credit ratings of Korea 10.28-30: Moodys lowered the credit ratings of Korea and 4 Korean banks
11.17 Exchange Rate of the dollar exceeds 1000 Won			
11.21 Calling for a IMF bailout	1035.5→1109.4	140→171	11.26-28: S&P and Moodys cut the credit ratings of Korea
12.2 Suspension of 9 merchant banks	1163.8→1208.2	258→220	
12.5 Agreement on the IMF package	1249.5→1270.6	281→212	
12. 6 Bankruptcies of Halla and Coryo Securities	1156.1→1537.1	229→212	12.11: S&P and Moodys cut the credit ratings of Korea
12.24 Announcement of early support by IMF and Advanced Countries	1964.8→1548.1	164→346	12.22-23: S&P and Moodys cut the credit ratings of Korea

since the early 1990's. Because of these bankruptcies, Korean banks heavily accumulated bad debts. Korea First Bank, the most heavily involved in Hanbo, had to receive special support funds from the government. The government also decided to provide a special one year support loan to merchant banks experiencing cash shortages.

Beginning in the summer of 1997, the storms of the Southeast Asian currency crisis began affecting Korea. The most critical one was the depreciation of the Taiwanese currency in October 17. Given that Taiwan had such a large stock of foreign reserves, few investors thought it would have to allow its currency to depreciate. Taiwan's devaluation immediately encouraged heavy selling of the Korean won. This pressure reinforced Korea's problems in rolling over its large dollar denominated foreign bank loans. In the meantime, foreign capital continued to flow out.

Given the repeated unfavorable situations at home and abroad, there was an increasing possibility that a small shock or discrepancy in the capital market, foreign exchange, or the international financial market could be amplified to unexpectedly large proportions. On November 17, the won's value dropped to the 1,000 level amidst confusion. Confidence in the Korean economy plummeted. The danger was not simply in the shortage of capital funds, the foreign exchange rate and currency speculation, but rather in increasing suspicions about Korea's economic credibility.

It became evident that Korea alone could not cope with this capital outflow. On November 21, the government decided to apply for bailout loans from the International Monetary Fund. The situation became uncontrollable. Before going to the IMF, the Korean government asked Japan for financial help but this attempt ended in failure.

On December 4, the Korean government reached an agreement with the IMF to borrow a total of \$55 billion in emergency funds, including loans from other countries such as the U.S. and Japan. In exchange for the IMF bail-out loan, the government conceded to overhaul the financial sector and take belt tightening measures. But this failed to calm the

foreign exchange market and, as the Korean won began to depreciate, the already fragile banking system was weakened further. This was especially true for merchant banks which borrowed in the short term and invested in both domestic and foreign high risk assets. The operations of 14 merchant banks were suspended on Dec 2 and 5.

But stability was not immediately regained. On the contrary, the situation was aggravated during Dec. 1997. It was not until February 1998 that the Korean economy stabilized with the conclusion of a debt rescheduling agreement between the Korean government and foreign investors.

III. The First Mistake: Exchange Rate Policy and The Collapse of the Won

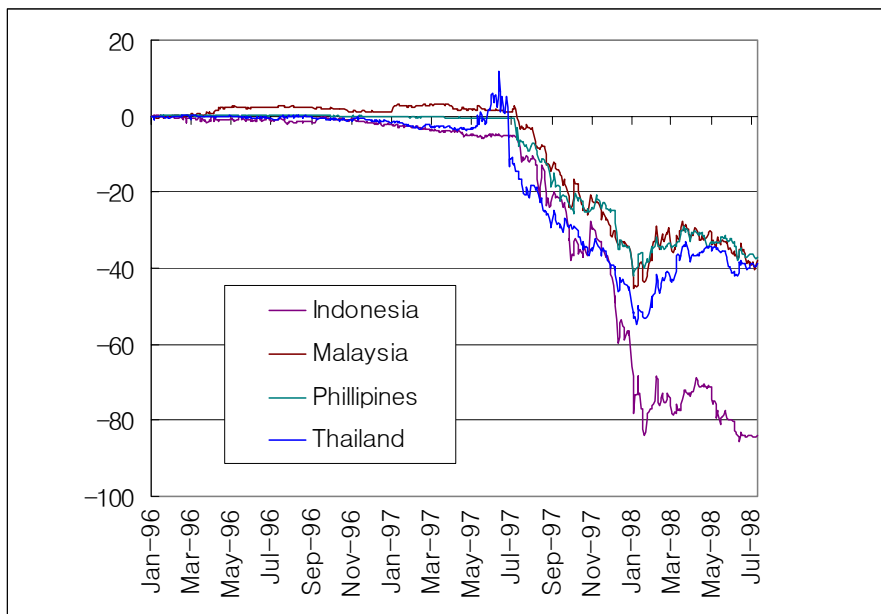
As explained, the first symptoms of the currency crisis in Korea appeared when Hanbo Steel went bankrupt. However, it was not until November that the crisis actually broke out. To understand how this symptom developed into a full-blown crisis, the exchange rate policy of the Korean government should be examined in detail.

It is generally agreed that the rigid exchange rate policy was one of the most important causes of the currency crises in Asia. In fact, concerning the exchange rate policies of Asian countries during 1997, two groups are distinguished. The first group of countries faced speculative attacks and currency crises. This group included countries such as Thailand, Indonesia, and the Philippines where attempts to fix the exchange rate at an unsustainable level were perceived as the main cause of the speculative attacks. The second group of countries include those that allowed their currency to depreciate rather than defend their parities. This group included Singapore and Taiwan.

Korea belonged to neither group. The Korean won had been in decline since 1996. In fact, the won had depreciated in real terms throughout the 1990s, but this policy abruptly changed in February-March 1997 when the Korean government suddenly attempted

to maintain the exchange rate of the won against the dollar¹⁾. There were no economic reasons why the Korean government had to fix its exchange rate in the face of increasing foreign competition and export difficulties. It might be suggested that if the trend of depreciation had continued, Korea may have avoided the sudden collapse of its currency. In November, the won collapsed under the mounting pressure of capital withdrawal.

(Figure 1) Comparative Exchange Rates against the US Dollar (January 5, 1996=100)



1) At the same time there was a change in cabinet members, and with the new deputy prime minister in office, the exchange rate policy changed. There were yet no official reports about why the government attempted to fix the exchange rate of the Won, reversing the past tendency. However, according to some speculation, the new prime minister tried to help then President Kim Young-Sam keep one of the promises he had made during the presidential election campaign of 1992, i.e., to double the per capital GNP within 5 years from almost 10,000 dollars in 1992 to 20,000 dollars in 1997.

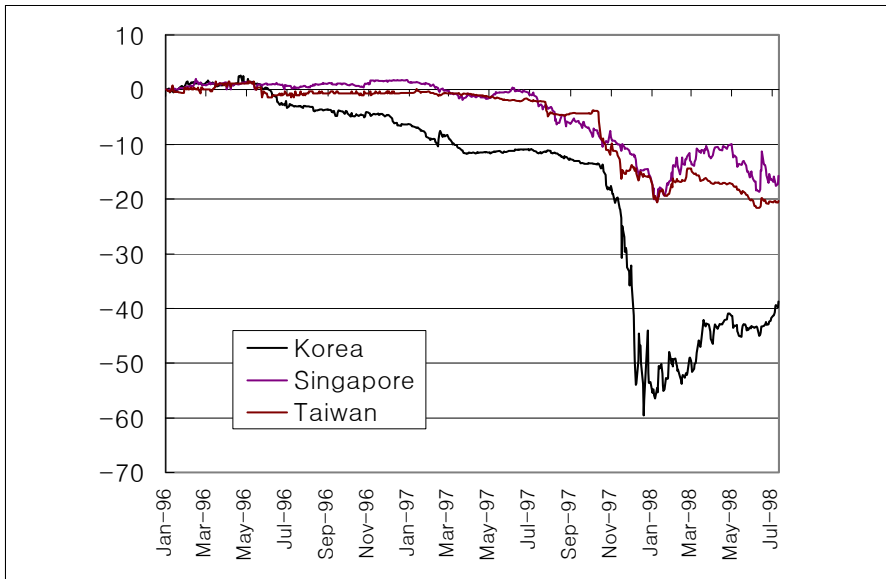


Figure 1 shows clearly that there were two attempts to withdraw capital during 1997. The first attempt could be handled without causing great concern by the secret and skillful fund support scheme of the Bank of Korea. But the second attempt could not be handled in the same way, given that Korea had smaller foreign reserves in October–November, and that the currency crises had already spread all over Asia.

This is made clear by an examination of the trend of official foreign reserves that the BOK held (See Table 2). It is worthwhile to note that Korea's official foreign reserves changed little and fell only slightly to 24 billion dollars at the end of November 1997. However, it is remarkable that usable foreign reserves (official foreign reserves less the Bank of Korea's deposits at overseas branches of domestic banks less unsettled forward market intervention) fell sharply in February–March and in October–November. In terms of usable foreign reserves, Korea had only US\$1.1 billion in the nation's reserves at the end of November, a situation perilously close to bankruptcy.

In fact, as foreign banks rejected rolling over short term loans to Korean banks and as the consequent demand for dollars increased,

(Table 2) Monthly Foreign Exchange Reserves

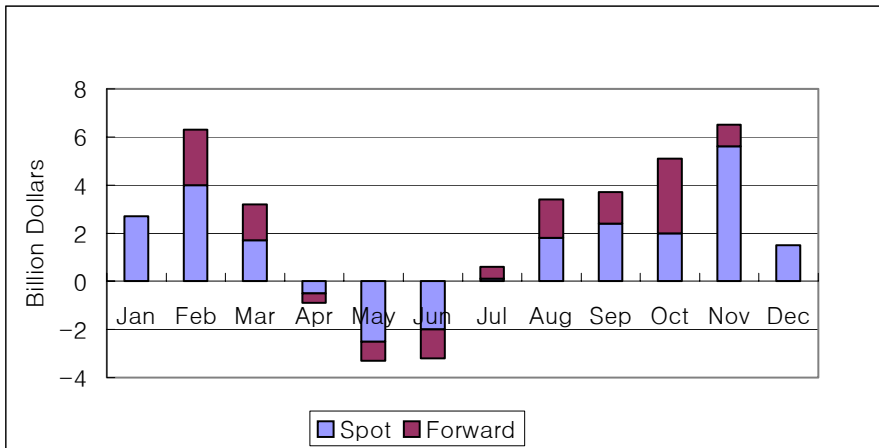
(unit : billions of US dollars)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Foreign Reserves (A)	31.0	29.8	29.1	29.8	31.9	33.3	33.7	31.1	30.4	30.5	24.4	20.4
Non-liquid Foreign Reserves (B)	3.8	9.3	11.8	11.3	9.5	7.9	8.6	10.1	11.0	14.1	23.3	17.4
Oversee Branch Deposits	3.8	7.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	16.9	11.4
Forward Balances to Be Settled	-	2.3	3.8	3.3	1.5	-0.2	0.6	2.1	3.0	5.9	6.2	5.8
Other	-	-	-	-	-	-	-	-	-	0.2	0.2	0.2
Usable Foreign Reserves (C)	27.2	20.5	17.3	18.5	22.4	25.5	25.1	21.0	19.4	16.4	1.1	3.0
Changes in Usable Foreign Reserves		-6.7	-3.2	1.2	3.9	3.1	-0.4	-4.1	-1.6	-3.0	-15.3	1.9
Exchange Market Intervention		-4.3	-1.5	0.2	1.0	1.6	0.1	-1.8	-2.7	-2.0	-7.0	-2.0
Increase in Oversee Branch Deposits		-3.2	-	-	-	-	-	-	-	-	-8.9	5.6
Other		0.8	-0.7	1.0	2.9	1.5	-0.5	-2.3	1.1	-1.0	0.6	-1.7

Source : Ministry of Finance and Economy

Korean banks relied on the BOK, and the BOK could not help but use official reserves to bail out these financial companies. But the BOK and the Ministry of Finance and Economy wanted to camouflage the consequent decline in reserves. Two strategies were used. The first was a secret support scheme. The BOK moved its short-term safe deposits to overseas branches of Korean banks, which in turn moved their deposits to their mother banks in Korea. In appearance, there was no change in the official statistics of foreign reserves that the BOK held. However, in reality, usable foreign reserves fell in the sense that these deposits cannot be used to repay foreign investors. In February, overseas branch deposits increased by 3.2 billion dollars, and in

(Figure 2) Foreign Exchange Market Intervention (Intervention base)



Note: Negative values imply buying the US dollar.

Source: BOK

November these deposits doubled to reach 16.9 billion dollars, which amounted to more than half of official reserves. The second strategy was to intervene in the forward exchange market. If the BOK concluded a forward contract to sell US dollars, then there would have been no change in the foreign reserves held by the BOK until the settlement date, but its effect would be almost the same as a selling of the US dollar on the spot market. In fact, the BOK massively intervened in the forward market from February–March and October–November (see Figure 2).

In the face of depleting foreign reserves, and because the central bank had to support financial intermediaries, it is understandable that the use of these strategies was inevitable. In fact, it was quite a success in February and March. In March when the first wave of capital withdrawal by foreign investors took place, this scheme succeeded because the changes in the useable reserves were kept secret from investors, domestic and abroad, and a foreign capital drain could be avoided. The exchange rate could be maintained, and at the given

exchange rate foreign capital could be repatriated without troubles. Foreign investors soon recovered their confidence in the Korean market.

In October, the situation was different. As foreign capital continued to flow out, it became more and more apparent that the Korean government and BOK could not maintain their previous official reserves. Despite continued withdrawal of capital, the changes in the official foreign reserves that the BOK reported were less than expected. More and more people began to doubt the credibility of the announced reports of foreign reserve holdings of the Korean government. Foreign investors did not cease to withdraw their capital, continuing to sell off the Korean won against the dollar. Finally the Korean government succumbed as the useable reserves fell to a record critical level. The Korean won collapsed. Immediately after the collapse of the Korean won, it was discovered that these doubts were well-founded and justified. Table 2 reveals that the government's management of the country's foreign reserves was very poor. A symbolic example is the fact that in the one month of November, the government wasted US\$15.9 billion in unjustifiably defending the exchange rate and supporting domestic banks facing default. There was a need for the Korean government to act as a lender of last resort but there was no need to do it on a fixed exchange rate. When it became clear that demand for the dollar was coming from domestic financial institutions that were being requested to repay foreign debts by foreign creditors and were being denied roll overs of past debts, the support should have been made on a penalty basis, allowing the Korean won to gradually depreciate. But the width of exchange fluctuation maintained was very small and under these circumstances, the government spent US\$ 8.9 billion in November. More serious was the intervention to stabilize the exchange rate, even after it became clear that the exchange rate was no longer defensible. Foreign reserves worth US\$ 7 billion (US\$ 6.5 billion on the intervention base) were depleted during November. US\$ 2.9 billion was spent even on the day the IMF bailout was agreed to on November 21. This proves that there is a lack of economic management ability by the country's foreign

exchange authorities.

IV. The Second Mistake: Asymmetric Regulation on the Inflow and Outflow of Capital and Reckless Lending of Financial Institution

As examined, the reason behind the crisis was the massive outflow of capital. The causes of this outflow of capital was the poor management of financial and business organizations, which invited a drop in the national credit rating. Especially, the financial sector was the largest foreign capital debtor and its fragility contributed to triggering the currency crises in Korea.

In Korea, banks have neither the intention nor the ability to make credit risk evaluations. All they considered necessary was the collateral and the guarantee. Large and small-and-medium sized companies need to be distinguished here. Small-and-medium sized firms could not borrow unless the required value of the loan collateral they provided to

(Table 3) Foreign Debts of Korea as of Dec. 1997

(unit: billion US dollar)

Total Foreign debts						
	External Liabilities (IMF definition)					Debts owed by oversee branches or subsidiaries of Korean firms
	Total	Debts owed by the government sector	Debts owed by the financial sector	Off-shore banking by Korean financial institutions	Debts owed by firms	
207.6	154.4	18	60.5	33.6	42.3	53.2

Source: Ministry of Finance and Economy

banks exceeded 130% of the investment funds.²⁾ If they went bankrupt, the banks could easily recuperate their losses by selling the collateral because their loans were more than 100% secured. So in contrary to popular beliefs, there were generally no risks taken so far as SME loans were concerned. In this respect, banks do not seem significantly different from simple pawn-shops. There were serious risks and moral hazards, however, so far as loans to chaebols were concerned. The companies belonging to chaebols can resort to a cross guarantee system so that, together, they can borrow more than their total collateral value justifies. In fact, guarantees offset each other to such an extent that there remains no effective guarantee for all the companies taken as a whole. Moreover, if one company goes bankrupt, then the other companies belonging to the same chaebol have high risks of going bankrupt. Truly it had been very difficult for the Korean government to allow these chaebols to go bankrupt because they were too big to fail. There had been a widespread belief that chaebol companies would not go bankrupt because the government would not permit it. However, if they went bankrupt, the banks would be laden with huge non-performing loans. In fact, Koreans banks saw a soaring increase in non-performing loans as several chaebols went bankrupt. The share of non-performing loans in Korea was already above the capital ratio in 1997 so that the non-performing loans had already wiped out all the capital of the banks.

More serious was that, as the internationalization of banks began in the 1990s, these banks simply continued to do what they did in the domestic market overseas. Competitive establishment of overseas offices, branches or subsidiaries by domestic financial institutions, and a wave of creation of overseas funds followed, reflecting the spending spree of internationalization by Korean banks. Given that Korean banks had no

2) In contrast to the generally admitted remarks that non-performing loans were due both to excessive exposure to the property sector and excessively optimistic estimate of the loans collateral, in Korea, lending by banks to the property sector was strictly regulated and the estimates of loan collateral by banks was also very conservative

(Table 4) Comparison of bad loans between Korea, Japan and US

(unit: %)

	Korea(97.9)	Japan(95.9)	'US(end of 95)
Non-performing loans to GNP(Japanese definition)	7.6%	5.5%	
Non-normal loans to GNP (US definition)	8.0%		1.19%

Notes: (1) The bad loans are for deposit banks and merchant banks in the case of Korea, for national banks in the case of Japan, and for FDIC member banks in the case of the US

(2) Non-performing loans are defined as those for which repayment was delayed more than 6 months, or those that were unable to be retrieved or estimated lost. The non-normal loans are defined as those for which the repayment was delayed more than 3 months, or those that were unable to be retrieved or estimated lost.

Source: BOK, MOFE

concern about currency and liquidity risks at all, the internationalization efforts of Korean banks were doomed to failure.

What was critical in this respect was the asymmetric regulation on the inflow and outflow of capital and on short and long term borrowings (Kim and Rhee(1998)). In fact, the Korean government encouraged Korean banks and enterprises to invest abroad rather than borrow from abroad, and, if they borrow, to do short term rather than long term. The result was that Korean banks extensively borrowed foreign capital on a short term basis and then lent on a long term basis without proper evaluation of risks. There were few bank managers accustomed to international business. Moreover, they had no floating exchange rate experience. Risk management practically did not exist and almost all Korean banks were exposed to foreign exchange rate and liquidity risks. This is especially true for merchant banks. For example, the liquidity ratios in foreign currency for these merchant banks were only 3-6% for all the periods up to the financial crisis.

(Table 5) Foreign Currency Liquidity Ratio¹

(unit: %)

	1992	1993	1994	1995	1996	1997
Deposit banks	83.2	87.9	80.6	77.5	77.7	93.4
Development banks	30.8	32.8	33.3	39.8	43.4	61.9
Merchant banks	3.6	4.0	3.0	3.1	6.3	14.7

Note: short term use of foreign currency/short term borrowing of foreign currency

Source: BOK

The maturity mismatch was very severe. Moreover, financial institutions were recklessly lending either to domestic companies or to high risk foreign countries. Domestic financial institutions borrowed 66.6 billion dollars in foreign currency. (Overseas borrowings amounted to 58 billion dollars and domestic foreign currency borrowing to 8.6 billion dollars). Among this, they lent to Korean companies, particularly overseas subsidiaries of big conglomerates, 39.5 billion dollars (59.3% of total foreign currency loans) and the rest to emerging high risk countries in East Asia and Russia, with no concern but high return. When the Asian currency crisis broke out, it turned out that about 1.7 billion dollars could not be retrieved.

(Table 6) Foreign Currency Exposure of Domestic Banks (End of 1997)

(unit: Billion dollars)

	Asia					Russia	Korea	Other	Total
	Thai	Indonesia	Malaysia	Others	Total				
Deposit Banks	2.97	2.61	0.84	9.09	15.53	1.47	38.33	4.86	60.20
Merchant Banks	0.50	1.15	0.53	1.30	6.41	0.51	1.18	1.21	6.41
Total	3.48	3.76	1.38	10.40	19.03	1.99	39.51	6.07	66.62

Source: BOK

(Table 7) Credit Line Reduction Trend for 7 Commercial banks During 1997

(unit: 100million dollars)

	Choheung	Com- mercial	First Bank	Hanil	Seoul	Foreign Exchange	Shinhan	Total
Feb.-March (Hanbo)	10.6	16.3	25.6	10.8	15.0	3.6	9.0	90.9
July16-Sep. 30 (Kia)	10.7	13.0	13.5	15.8	5.5	8.3	3.9	70.7
October	2.2	1.1	1.3	5.3	1.1	4.1	4.1	19.2
Total	23.5	30.4	40.4	31.9	21.6	16.0	17.0	180.8

Source: BOK

Naturally, the absence of risk management in financial institutions came to increase foreign creditors' vigilance against lending to Korean banks. This also hurt investor confidence, especially when Korean companies started to go bankrupt. After Hanbo Steel went bankrupt on Jan 21 1997, the first series of capital outflow began as foreign creditors attempted to reduce their credit lines or reject new loans to Korean banks. When Kia, a car maker, went bankrupt, this situation became incurably aggravated. Faced with a run on domestic financial institutions, the BOK was obliged to support the foreign currency shortages of domestic financial institutions from the official reserves it held

If the currency crisis can be explained by the runs on domestic financial institutions by foreign creditors, then it was principally led by the Japanese banks. Japanese banks had already started to reduce their credit lines to Korean banks from the beginning of 1997, when the Japan premium was high, reflecting deteriorating confidence in the Japanese economy. The credit lines of Korean banks could be maintained until August as this premium lowered. In Oct 23, 1997, the Hong Kong stock market collapsed and 8 Japanese financial institutions went bankrupt. These were the final blows leading the financial markets in Hong Kong

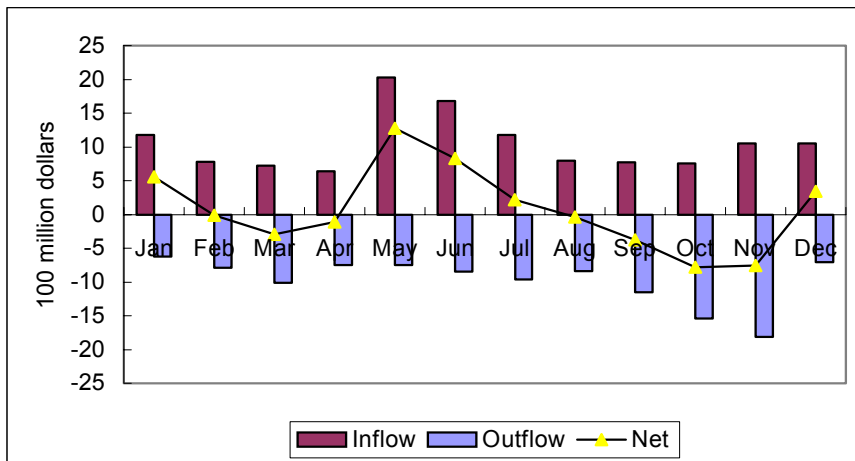
(Table 8) The Trend in External Debts of Korean Banks

(unit: 100million dollars)

	End of 1996	End of 1997	Change
Short term bank loan	629.7	253.9	-375.8
-Japan	218.8	88.0	-130.8
-US	56.7	34.9	-21.8
-Europe	173.0	96.1	-76.9
-Others	107.1	28.4	-78.7
CP	74.1	6.5	-67.6
Long term loan	315.9	375.3	59.4
Total	945.6	629.2	-316.4

Source: BOK

(Figure 3) Inflows and Outflows of Stock Market Investment Funds by Foreigners during 1997



Source: BOK

and Japan, which were major lenders to Korea, to stop new lending to Korea. In fact, Japan withdrew short term loans worth 13 billion dollars during 1997. Moreover, the withdrawal was concentrated in February–March and November–December. During November–December, the withdrawal reached 7 billion dollars.

In the stock market, foreign investors were also leaving Korea and the outflow of capital was quite large.

V. The Third Mistake: A Rigid Labor Market and the Accumulation of Debts

Together with the banking sector, the enterprise sector was the second largest borrower of foreign capital. Chaebols especially were the major borrowers in the international capital market as well as in the domestic financial market. As a consequence, almost all Korean chaebols had weak financial structures laden with enormous debts.

The financial situation was worst amongst the bankrupt chaebols. Seven chaebols went bankrupt during 1997. (Sammi, Hanbo, Jinro, Kia, Haetae, Newcore, and Halla). The only reason these chaebols were able to survive in the past was due to extra-market conditions including

(Table 9) International Comparison of the Financial Structures of Manufacturing Industries

(unit: %)

	Korea		US (1996)	Japan (1996)	Taiwan (1995)
	(1996)	(1997)			
Debt Ratio	317.1	396.3	153.5	193.2	85.7
Liquidity Ratio	91.9	91.8	137.9	130.0	129.4
Profit Rate	1.0	-0.3	8.3	3.4	5.1

Note: Debt Ratio = Total Liability/Capital,

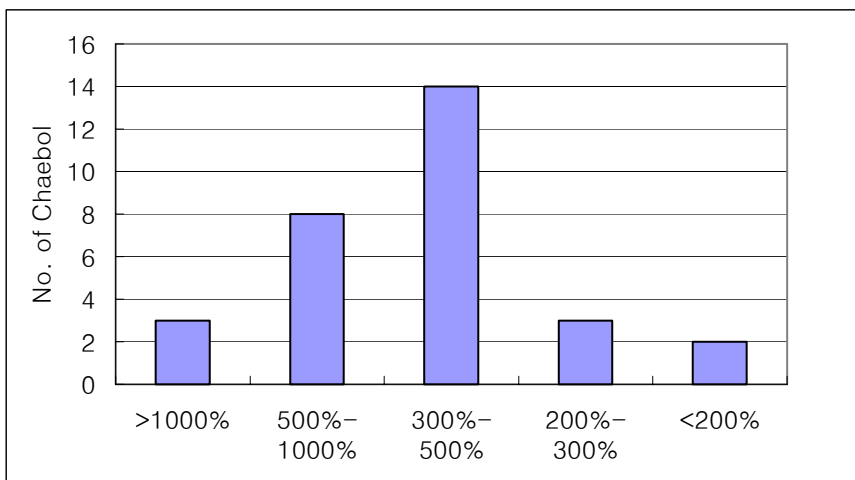
Liquidity Ratio = Short Run Assets/Short Run Liabilities

Profit Rate = Current Profit/Total Sales

Source: BOK

monopolization, government instigated financing, and collusive practices with politicians. In the past, once a company became a chaebol, cross financing and mutual investment strategies within the group made the head company strong enough to dictate to the financial community while at the same time ignoring government policies. Also these chaebols were run as semi-dictatorships utilizing centralized management policies by inexperienced second-generation owners, who made unwise and ultimately fatal investment decisions. Figure 4 and Table 10 show respectively the debt ratio structure of Korea's Top 30 chaebols and the debt ratios of bankrupt chaebols. Among 30 chaebols, the 3 companies whose debt ratio exceeded 1000% all went bankrupt and 4 out

(Figure 4) Debt-Equity Ratios of Korea's Top 30 Chaebols (As of April, 1996)



(Table 10) Debt-Equity Ratios of Bankrupt Chaebols (As of April, 1996)

(unit: %)

Hanbo	Sammi	Jinro	Kia	Haetae	NewCore	Halla	Average
659.7	3244.6	2404.5	407.7	506.1	924.0	2650.0	1542.0

Source: Fair Trade Commission

of the 8 companies whose debt ratio was between 500% and 1000% went bankrupt. This means that in spite of their inferior financial structures, these chaebols engaged in unreasonable investments in expansion, far beyond their means to pay.

How did Korean chaebols come to have such high debt ratios? The first reason is that Korean banks lent excessively and without precaution. Krugman(1997) emphasizes that this moral hazard behavior of banks is a consequence of the government guarantee to bail out. According to him, because of the implicit government guarantee to bail out, banks borrowed too much from abroad and lent too much for investment projects that were too risky. As these investment projects turned out to be not profitable, the companies found themselves with a huge amount of foreign debt that could not be repaid. Note also that banks were severely under-capitalized in Korea and other Asian countries. Their capital ratio was estimated to be as low as 6-8%. Under-capitalization made banks invest too heavily in risky investments. What made matters worse was the failure of the banking system to disclose hidden losses. In fact, in all these cases, the bank loan turned sour. There was, however, no reason for bank managers to let these money losing companies go bankrupt and report large losses. They kept the inefficient companies afloat and hid the expected loss.

These are surely important reasons in explaining the high debt ratios of Korean companies. One more important reason that can not be ignored is the labor market condition of the Korean economy characterized by a de facto life-time employment system combined with increasing wage rate rigidity. It is generally argued that the growth and diversification of big companies in Korea was due to their privileged positions and government support. This cannot be denied in light of the growth experience of the Korean economy. But in recent periods, it could be that the labor market rigidity was the more important cause. In fact, due to labor market rigidity, Korean firms could not lay off excessive or redundant workers. The only way to solve the redundancy of workers was to expand the size of firms and diversify business activities. Thus

even over-expansion and over-diversification was a rational response by Korean firms to the situation. The consequence is that Korean firms were heavily leveraged compared with those of other countries.

In Korea, a permanent employment commitment prevailed as in Japan so that there were few layoffs in Korea. Job security was automatically ensured. This system applied especially well to the workers of large corporations. A positive aspect of the permanent commitment system was that it provided security to workers and reinforced their sense of loyalty to the company family. Thus it contributed to the relatively low level of labor unrest and encouraged the workers to identify their own destiny with that of the company. This system might also help to explain the excellent performance of the Korean or Japanese in adopting modern production technologies. According to Aoki(198), employees ask for mild wage increases in return for job security. Under this system, employers are more concerned about the growth of firms than the profit opportunities. Moreover, employers are willing to spend the time and money to train their employees in new technologies, knowing that their company, not a competitor, will reap the benefits. Also, employees are less fearful of technological unemployment and not likely to resist the introduction of robots and other innovations that make their jobs easier. If the firm grows, the workers can be compensated not only by increased job security but also by a seniority wage system and career promotion.

This situation could not be sustained indefinitely. If this system is to succeed, mild wage increases together with continuous productivity increases are essential. Otherwise, too many jobs cause a loss in competitiveness and the system could collapse. Clearly, faced with increasing competition from globalization, Korean companies could not sustain the number of jobs. Many workers were already redundant, and often incompetent and unmotivated workers were retained. In fact, according to some estimates (Booze and Allen(1997)), the level of these extra workers was calculated to be 9.3% of the labor force in Korea. Given the fact that the unemployment rate in Korea was 2. 0% before

the crisis, this implies that the unemployment rate should exceed at least 11.3% if the restructuring process of Korean companies is to be completed. In fact, almost 1.5 million jobs were lost between the summer of 1997 and December 1998, raising the unemployment rate from 2.2 to 8 per cent. Many of these extra workers had accumulated over the last 5 or 10 years. Unless productivity increases, adjustment in labor costs should be allowed either by lowering wage costs or by reducing the number of workers employed.

Growth strategy no longer works well. In the past, this strategy was successful. The labor market was not yet in excess demand. The domestic market was protected from foreign competition. In addition, there was often an implicit government guarantee to big companies.

“Borrow large sums of money and then expand” was the best strategy for companies. There appeared to be a “too big to fail” myth. However, as the Korean market is becoming more open and competition is becoming more fierce, it is clear that even the big companies can not survive if they lose competitiveness. Labor market rigidity was a fatal blow to large Korean companies. Moreover, as the financial difficulties and bankruptcies of companies flowed over into the financial industry, many banks were exposed to a soaring increase in non-performing loans and some became insolvent. This affected the already very low profitability of banks, because these banks were also staffed with excess workers..

VI. Conclusion

The Korean economic crisis was the joint product of government incompetence and the moral hazard behavior of banks and private conglomerates known as chaebols. The greatest policy mistake that the Korean government committed concerned its rigid exchange rate stabilization policy. The collapse of the Korean won was inevitable in the face of the continuing outflow of foreign capital but the Korean government continued to intervene, spending all its reserves on

defending its currency and supporting domestic banks in need of foreign currency liquidity. The absence of risk management and the reckless lending of Korean banks and the consequent debt problem of Korean chaebols were the two most important factors that aggravated this initial liquidity crisis into a true economic crisis. In this context, two related policy mistakes should be noted. The first mistake was the asymmetric regulation on the inflow and outflow of foreign capital and on short and long term borrowing because it encouraged Korean banks to lend recklessly and on a long term basis while borrowing on a short term basis. The second policy mistake was the inability to deal with the rigidity of the labor market. In fact, the labor market rigidity was one of the most important but often neglected features of the Korean crisis. This feature is very often forgotten and usually only the high gearing ratio of Korean chaebols is blamed. Clearly the high gearing ratio could not be, itself, an important cause of the crisis if large Korean companies can layoff their redundant labor and regain profitability. In fact, the recovery of the Korean economy from the crisis is to a great extent owed to the increased profit opportunity resulting from an increased flexibility in wage and employment.

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