Instituto Complutense de Estudios Internacionales
Universidad Complutense de Madrid
ICEI Working Papers, No. 11

The Financial Crises in East Asia:
The Cases of Japan, China, South Korea and Southeast Asia
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October 1998

PART III
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1. Introduction

The Republic of Korea has achieved an extraordinary level of economic growth and wellbeing over the last thirty years. This accomplishment has certainly set a benchmark for development models and many scholars have devoted their research to the study and analysis of Korea's astounding economic performance. Likewise, international development institutions such as the World Bank praised Korea as a successful and exemplary student[1]. It may seem difficult to remember it now but not long ago countries in Latin America and Asia were told to look at Koreans and try to imitate their successful economic model (see table 1). Korea was even rewarded for its extraordinary economic effort and growth with a seat in the selective Organization for Economic Cooperation and Development (OECD) in December 1996. The economy was impeccable except for a couple of "minor" concerns like a pending financial reform, an increasing wage/productivity ratio and a low export growth.

One month after joining the OECD, Hanbo Steel, a leading industrial conglomerate or *chaebol,* went bankrupt. Even before Korea could celebrate its first year as an OECD member, the International Monetary Fund (IMF) had to provide a US$ 57 billion's bailout to avoid the total collapse of the Korean economy.

This paper is an attempt to explain why Korea's economy has passed from a model of virtue to the utmost archetype of crony capitalism and bad macroeconomic management. The discussion starts with a short review of the Korean economy in the 1990s and continues with a chronology of the major events that have shaped the crisis in Korea. The argument proceeds with an analysis of the major causes of the financial and currency crises in Korea and explores the possible effects of externalities in domestic events. The final piece of the discussion deals with current Korean economic policies and its implications.

2. The Korean economy before the crisis: The buoyant Korean economy of the 1990s

Triumphalism is the word that best describes the way most Asians perceived the substantial achievements of their economies in the 1990s. Not long before the trigger of the Asian crisis, some economists in Hong Kong crowed over the fact that Asian economies were attaining levels of productivity that surpassed those of the US. In the West, some economists contributed to this idea while others seriously questioned the fundamentals of the Asian economies. Krugman[2] pointed out that the Asian economic *miracle* was mainly due to an intensive use of inputs, that is, to a high growth rate of capital and labor inputs. This stand clearly implied that very little total factor productivity (TFP) growth had occurred in Asia and that the high rates of growth in the Asian economies were unsustainable in the long run because capital and labor could not be pumped into the economy for a long time at the same rates. In fact, the crisis in Korea has had a lot to do with decreasing labor productivity, bad investments and capital shortage as we will see later in the paper.

Despite Krugman's criticism, most economists still praised until 1997 the incredible rates of growth achieved by Korea (see table 1) and admired the surging level

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[1] See World Bank (1993), *The East Asian Miracle. Economic Growth and Public Policy*. New York: Oxford University Press.

[2] See Krugman, Paul, (1994), "The Myth of Asia's Miracle: A Cautionary Fable", *Foreign Affairs*

of economic well-being of its citizens. In fact, the Korean economy grew at an average rate of 7.1% between 1992 and 1996 while the GDP per capita surpassed US$ 10,000 at the end of that period. Employment remained low under 3% and so was inflation[3] (stable under 5% for the three years preceding the crisis). Meanwhile, domestic workers were enjoying ever fattening payrolls. An economic slowdown did take place in 1992, when GDP growth rate fell to nearly 5%, although this lasted only for about a year. Some Korean economists pointed out that this slowdown could evolve into a recession but the truth is that, by 1994, the economy was growing at 8.5% again and the future was dazzling. A good set of books and scientific articles during these years dealt with the economic perspectives of the Korean economy for the 21st century[4] and publishers used these catchy headings to increase their sales revenues. Other top-notch and fancy publishers preferred the word globalization to describe the economic stage of Korea during those years, clearly alluding *chaebol*'s success stories in foreign markets.

In fact, the foreign sector was doing quite well. During the early 1990s, Korean companies expanded their operations abroad and some industrial conglomerates managed to become true multinational corporations. Korean direct investment was soaring in China, Southeast Asia, Eastern and Western Europe, the US and even in Latin America. Due to domestic and regional factors, the export sector was not as strong as in the old times[5]. Increasing competition from neighboring countries, decreasing competitiveness of Korean products, lower world prices for goods such as automobiles, computer ships, ships and garments, and a recession in Japan and in Europe, among other factors, contributed to a decrease export growth[6] in the nineties.

In summary, the Korean economy was doing relatively well, although it is very important to note the excessive amount of optimism among economists and policy makers in Korea and abroad. Moreover, this general optimism proved to be quite counterproductive because it ignored that some of the fundamentals of the Korean economy were indeed not so healthy as it seemed. The upcoming presidential elections and the electoral messages and political arguments employed certainly contributed to foster the idea of economic soundness[7] among the Korean people. This overly optimistic perspective certainly delayed the necessary reforms that could have helped to avoid the collapse of the Korean economy in the fourth quarter of 1997.

3. An abridged chronology of the Korean crisis

3.1. From prosperity to agony: the corporate crisis

As we pointed out in the previous part, not many really suspected the upcoming gloomy future of the Korean economy. Korea's membership in the OECD was an

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[3] At least, relatively. Economies growing at high rates usually suffer from overheating and there is danger of excessive inflation. Low inflation in Korea is therefore a sign of relatively healthy monetary policy and macroeconomic stability, especially when compared with developing economies in Latin America.

[4] See, for instance, Cha, Dong Se, K. S. Kim and D. Perkins (1997), *The Korean Economy 1945-1995: Performance and Vision for the 21st Century*, Korea Development Institute, Seoul.

[5] One of the cornerstones of Korean economic development in the 60s, 70s, and 80s was precisely an export led growth strategy. For more details see Kuznets, P. (1994), *Korean Economic Development: an Interpretative Model*, Praeger, Westport, Connecticut, pp. 75-102.

[6] See Adelman, I. and Song Byung Nak (1998), "The Korean Financial Crisis of 1997-98", University of California at Berkeley, mimeographed, p. 1-2

[7] See Sanger, D. (1997), "South Korea Ends Efforts to Defend Its Currency", *New York Times*, February 4th.

unmistakable indication of the developed countries' confidence in this East Asian nation. However, the initial symptoms of fragility shyly appeared while Korea was still negotiating its accession to the OECD. The current account deficit broadened from 2% of GDP in 1995 to 5% in 1996, while the growth rate of exports went down from 31% to 15%. Foreign debt went up from US$ 78 billion in 1995 to US$ 100 billion in 1996. Moreover, although Korea's GDP growth rate recorded 5.9% for the first half of 1997, command GNP stalled at 0.9%, the lowest rate since the second oil shock[8]. This figure indicated a tremendous deterioration of the terms of trade for the Asian country, mainly due to the fall in world prices of Korea's main export products.

The first evident sign of change in the Korean economy was undoubtedly Hanbo Steel's bankruptcy under US$ 6 billion in debts. Hanbo, the 14th largest *chaebol* in terms of assets, closed down in January 1997. For the first time in recent Korean economic history, the government had decided to suspend economic assistance to a big business group and allow market mechanisms to function. In March, Sammi Steel, another Korean conglomerate, defaulted inducing fears of a imminent corporate debt crisis. While Japanese officials hinted a raise in interest rates that would intensify financial turmoil in Southeast Asia, Korean conglomerates continued to default. After Sammi came two major affiliates of the Jinro group, the major *soju* producer in Korea. The Dainong retail chain and the Ssangyong business group followed through.

In the meantime, the situation in Southeast Asia worsened by leaps and bounds. In July the 2nd, the Thai baht depreciated and Thailand abandoned the peg system. A couple of weeks later, Malaysia's ringgit melted down and Thailand recurred to the IMF.

In Korea, the situation was not much better although the corporate bankruptcies had not yet unleashed a major turmoil. Then, one of the nation's largest *chaebol* and a world-known automaker, Kia, suffered a credit crunch and had to ask for emergency loans. The situation started to seem irreversible but the worst was still to come. Kia's crash had a profound impact of the Korean economy and in September, the government initiated a move to embark on measures to stabilize the banking sector. Unlike corporate failures, Korean authorities were concerned with the fact that bankruptcies of banks could generate far more adverse effects throughout the economy[9]. Logically, Korean banks played a crucial role in the credit expansion of domestic companies and became highly leveraged in doing so. Unfortunately, in spite of the tardy government efforts to save the economy, the situation was already quite unstoppable by then.

The Philippines, Indonesia, Taiwan, and Singapore suffered a currency devaluation in the subsequent months and IMF financial aid packages were granted to Thailand and Indonesia. Moreover, the IMF had confidence in a turnaround of the economic situation in Asia after the US$ 23 billion deal to Indonesia on October 31st. However, November would prove to be a fatal month for the Korean economy. The stock market had dropped 50% from its mid-1997 high and the Korean won started free falling. Market prices fell sharply as foreign investors pulled out, fearing South Korea faced an economic crisis on the scale of Southeast Asia's. In turn, these uncertainties about South Korea put even more pressure on Southeast Asia, creating a spiral of competitive devaluations that lead to the final collapse of the won on November 19th and subsequent days. The Korean government had decided on November 18th to

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[8] *Korean Economic Bulletin* (1997), "Command GNP Lowest in 17 Years", Vol 7; No.10.; October 1997

[9] *Korean Economic Bulletin* (1997), "Deteriorating Bank Performance-How to Unravel It", Vol 7; No.9.; September 1997

suspend efforts to defend its currency. As a result, the won lost 75% of its value in dollar terms as compared with the mid-1997 high. At that time, foreign-owned short-term debt amounted to nearly US$ 77 billion and it was unclear whether there were foreign reserves left to pay it back. This dramatic situation led Korean authorities to call for a rescue package to international agencies.

3.2. The IMF intervention and the currency and financial crisis

On December the 3rd, the IMF approved the largest financial relief package ever given to a single country: US$ 57 billion. This agreement urged Korea to follow certain macroeconomic policies, but the IMF also pressured to pass through other measures. In short, the agreement[10] included a tightening of the monetary policy to keep inflation at or under 5%, a revised act to allow for central bank independence, a compromise for a flexible exchange rate policy, a tight fiscal policy in line with the monetary policy, a restructuring of the financial sector focusing on consolidate supervision of banks and conglomerates, trade liberalization, capital account liberalization, several measures involving corporate governance and corporate structure, a reform of the labor market, and a more transparent economic and financial information system. This agreement was widely criticized by many economists including Milton Friedman and others. However, the IMF policy towards Korea did not vary significantly, although several reviews of the agreement did take place in January, February, May, and July, as the situation deteriorated. Most economists would agree that some of the reforms called for by the IMF were positive to a certain extent and would have helped to reshape the Korean economy in a different economic climate. Nonetheless and considering the dramatic situation of the Korean economy, many economists pointed out too that IMF requirements were draconian and should have been gradually implemented over a longer time span. Moreover, the high interest rates and tight monetary control certainly contributed to deteriorate the situation of many businesses[11]. The banking sector was also caught between the devil and the deep blue sea as banks had to meet the requirements established by the Bank of International Settlements by lowering bad loans. As a result, banks were forced to call back loans from businesses that could not return them, creating a spiral.

In spite of the large sum granted by the IMF and the economic and political commitments of the Korean government, the intervention happened to bring some transparency to the obscure functioning of the Korean economy. Nevertheless, international rating agencies decided to downgrade Korea's bonds to junk status when it became evident that Korean reserves were insufficient to cover the debt coming due at the year end. Meanwhile, net foreign lending decreased from US$ 100 billion to US$ –20 billion in less than two months. Money was flocking out of the country and Korea's financial situation was worsening very fast despite the huge bailout conferred by the IMF. By the end of January, the government reached an agreement with international commercial lenders on a US$ 60 billion rollover.

The obscure and poorly regulated financial system in Korea could not perform well in this new environment: high interest rates, increasing bad loans, a gloomy economic outlook, and a government that could not back the banks' decisions blindly anymore.

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[10] See IMF (1997), "Republic of Korea: IMF Stand-By Arrangement, Summary of the Economic Program", IMF, Washington DC, December, mimeographed.

[11] *Digital Chosun Ilbo* (1998), "OECD Critizes IMF's Korea Bail-out Plans", July 26th, 1998.

On January 30th, ten merchant banks closed down. Seven more would follow in the following months as the economy entered a state of chaos.

4. Background and causes of the financial and currency crisis in Korea

Although it is still unclear what are the main causes of the Korean crisis, there are to date two basic sorts of arguments. Radelet and Sachs[12] tie the crisis in Korea and, to a larger extent, in other parts of Asia to the financial panic while Corsetti *et al*[13] argue that the crisis can be attributed to external or regional pressures and to internal or domestic factors. A mixture of both would probably help to explain in further detail the causes of the crisis. However, further research should be undertaken before a specific weight could be assigned to each argument.

4.1. A worsening situation at home

The fundamentals of the Korean economy remained fairly solid until 1996 (see table 1 in the statistical appendix). During this year, macroeconomic indicators worsened to the point that some people hinted the possibility of an economic crisis. In 1997, the crisis was already installed in the Korean economy. The efforts to seize the crisis were unclear and the government was too wary to present a coherent plan to restructure the economy.

The proximity of the elections was clearly counterproductive, as the government did not dare to take immediate action to tackle the problem. A worsening economic situation, a weak government and the uncertainty brought in by the upcoming elections, proved to be a dreadful mix.

Some authors[14] suggest through a set of empirical data that crisis tend to occur in emerging countries when output growth is low, growth of domestic credit is high and the level of foreign interest rates is high. Clearly, this is not exactly the case of Korea either. Other studies also point out that crashes tend to occur when the inflow of direct investment dries up, when reserves are low, and when the exchange rate shows overvaluation.

4.2. Externalities: how much did they matter?

A paper[15] by Eichengreen, Rose & Wyplosz focuses on the chances of contagious currency crisis in a set of industrialized countries. The authors argue that contagion is more likely to occur in countries that are linked by trade rather than in countries that have similar macroeconomic characteristics. In fact, Korea was not so closely linked by trade to Southeast Asian countries. Moreover, the US and Japan are the main trading partners of Korea. Nonetheless, there are two key issues that should be

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[12] Radelet, S. and J. Sachs (1998), "The Onset of the East Asian Financial Crisis", Harvar Institute for International Development, March 1998, mimeographed.

[13] Corsetti, G., P. Pesenti and N. Roubini (1998), "What Caused the Asian Currency and Financial Crisis?", New York University, September, mimeographed.

[14] Frankel, J. A. and A. K. Rose (1996), "Currency Crashes in Emerging Economies: An Empirical Treatment", *Journal of International Economics*, Vol. 41, November: 351-366.

[15] Eichengreen, B., A. Rose and C. Wyplosz (1996), "Contagious Currency Crises", *NBER Working Paper*, No. 5681, also in *Scandinavian Journal of Economics*, Vol. 9, No. 4: 463-484.

pointed out. Korean direct investment in Southeast Asia grew fast in the years preceding the currency crash and the devaluation of Southeast Asian currencies clearly damaged Korea's competitive position in the international marketplace. Table 2 shows the expansion of the current account deficit in Korea and the foreign reserves versus short term debt and import ratios.

Not only the turmoil in Southeast Asian countries had a negative effect on Korea. The recession in Japan and the depreciation of the yen were also important factors that had a direct impact on the Korean economy. The slowdown of the Japanese economy started in 1990. As the won was relatively pegged to the dollar, an ever declining yen/dollar exchange rate meant an appreciation of the Korean currency against the Japanese one. Since Korea and Japan compete in many sectors, this process led to a deterioration of Korea's terms of trade.

4.3. Currency crisis in Korea

The current account deficit grew intensively since 1995 at 4.9% while the Korean won depreciated against the dollar by 8.6% in 1996 and 5.8% in the first quarter of 1997. Nonetheless, some economists have pointed out that the main causes of the currency crisis in Korea were the relatively overvalued won and the growing current account deficit. Others stress that the current account deficit was not large enough to provoke a crisis of such magnitude. Park and Rhee[16] argue that currency deficits in Korea in 1996 and 1997 were temporary and cyclical. The deficit was mainly due to a fall in the international prices of Korea's main exports and to the fact that policy makers regarded investment-led deficits positively. They go on stating that current account deficits were not as large in Korea as in other countries such as Thailand or Mexico and therefore it is not plausible to blame the deficit as the main cause of the currency crisis.

Table 3 shows the variations in the exchange rate, as well as in other indicators. It is somehow shocking that while the exchange rate fell from 965 won/dollar in the end of October to 1,965 won/dollar in Christmas eve, the stock index KOSPI only fell from 470 to 366. It seems as if the stock market was already very conscious of the seriousness of the Korea's economic woes.

5. Possible explanations to the crisis

No single explanation exists for a very complex event like the Korean crisis. This section will several plausible explanations, focusing mainly on the weaknesses of the Korean development model, the persisting institutional deficiencies, the *ex-ante* policy mistakes and the *ex-post* responses to the crisis.

The vulnerabilities induced in Korea's export oriented development strategy had a clear impact on the crisis. For instance, the worldwide decline in the world demand of Korea's most popular exports[17] led to a mild recession during the first part of 1997. Another example of strategy induced vulnerability is the mismanagement of the allocation of bank credit. As a way to promote exports, the Korean government kept close control on available credit, set interest rate ceilings, and distributed credit disregarding economic efficiency. Due to this government policy, debt-equity ratios rose and the financial structure of corporations became unsound. As financial costs of corporations became larger, solvency begun to depend heavily on fast growth and

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[16] Park, Daekeun and Changyong Rhee (1998), "Currency Crisis in Korea: Could it have been avoided?", Hanyang University and Seoul National University, mimeographed.
[17] Namely computer chips, ships, automobiles and garments.

increasing revenues. Yet, because there was an tacit government commitment to kept on backing and bailing out banks, financial institutions kept on taking higher and higher risks.

Some authors have stressed the institutional deficiencies of the Korean financial system. In fact, the system was in the borderline between that of a developed and that of a developing country. While Korea slowly liberalized its financial system, the government forgot to regulate it properly and to bring information and transparency into the domestic market. Meanwhile, Korea's open markets started to operate in the global financial system without revealing all pertaining information. It is interesting to point out that Taiwan and China did not suffer a financial crisis in the magnitude of Korea's. As opposed to Korea, China kept a tight control on the financial system while showing little signs of transparency. On the other side, Taiwan had already liberalized its financial system and establish an adequate flow of information for investors.

From a macroeconomic policy standpoint, the Korean government was perhaps too keen on maintaining an overvalued currency. It is not very justifiable to sustain an over-inflated won against the yen for a long period of time and it is even less justifiable to spend 20 billion dollars to defend it. Moreover, the high real interest rate policy maintained by the government induced domestic firms to borrow abroad, increasing demand for foreign exchange, and to recur very little to the stock market[18]. Other policy mistake was to decontrol real wage growth. During the last few years, the government supported wage growth for purely political reasons and disregarded the economic aftermath of this decision.

Adelman and Nak[19] suggest that perhaps the worst policy mistake was the drive towards premature liberalization of capital markets. As it was President Kim Young Sam desire to join OECD during his term in office, the government rushed to open up its markets to fulfill OECD admission requirements. The domestic market was not ready nor regulated enough to open up and, eventually, this led to a crash. It is interesting to recall that the Mexican crisis occurred only six months after Mexico joined the OECD.

Once the Asian regional crisis begun, the government was not in a position to respond to the crisis. Just a few months away from the elections, Kim Young Sam's team was centered on short term political considerations. Moreover, corruption practices regarding credit lines to bailout troubled *chaebols*, specially in the Hanbo steel case, put banks in a precarious situation. Still, government led rescue plans did not help to solve the corporate crisis and the situation of the banks grew worse and worse. Later attempts to control the situation came in too late and were regarded as tardy and unrealistic. The government was not successful in maintaining the international credibility of Korea.

6. Policy implications and economic perspectives in Korea

6.1. The effects of the IMF rescue package

Transparency was the first change brought in Korea by the IMF rescue plan. When global markets found out about the real level of foreign reserves, the won/dollar

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[18] The Korean stock market was at 50% of its 1991 level in 1997. High interest rates were a negative stimulous for investment and the stock market remained depressed for most of the 1990s. Companies were then forced to expand through credit as capital expansion was not possible. Eventually, the debt-equity ratio of some groups grew to unsustainable levels.

[19] See Adelman *et al., op. cit.,* 1998

exchange rate fell sharply. The IMF[20] designed a policy for Korea primarily based on stringent macroeconomic policies that aimed at restoring stability and confidence in the country. Money-market rates jumped from 12% prior to the crisis to 27% by the end of 1997. These measures intended to contain the fast outflow of capital and stabilize the exchange rate. At the same time, money supply growth (M3) should slow down from 16% in 1997 to 13% in 1998. Meanwhile, imports should help to raise foreign reserves to US$ 40 billion.

Another cornerstone of the IMF plan dealt with fiscal restraint. Before the crisis, Korea was one of the three OECD members running a national budget surplus. In principle, the government was in a good position to expand their fiscal policy in order to stimulate demand and investment. Despite this budget surplus, the IMF decided to apply its standard recipe to Korea instead: keep public spending on a leash. The IMF initially demanded a balanced budget for 1998, although the worsening situation induced the government to allow for a deficit equivalent to 1.75% of GDP. Soon it would become clear that the budget could not even remain at that level.

The request for structural reforms is probably the most interesting and respectable part of the IMF agreement. The two goals pursued were to expose the Korean economy more fully to world competition and to introduce more effective governance structures in the financial and corporate sectors. It seems quite reasonable to argue that the Korean economy could not follow a path towards globalization while maintaining such an archaic structure. For example, the domestic car market in Korea was the paradigm of protectionism[21]: while Korea exported 850,000 cars per year in 1996, it only imported 10,000. Highly indebted companies were to prepare restructuring plans to get their finances into shape while the banking sector was also compelled to enforce several measures imposed by the IMF the Bank of International Settlements (BIS). At the same time, the government begun a program to make the labor market more flexible.

In order to understand the implications of the IMF policy, it is useful to adopt an critical view and observe the results that the agreed measures had on the Korean economy. While the theoretical framework for the IMF macro-policies may sound very reasonable, the truth is that raising interest rates provoked a new wave of bankruptcies of heavily indebted companies. Moreover, higher interest rates increased sharply the level of bad loans and induced the crash of several banks in Korea. In summary, the aftermath of some IMF measures has been catastrophic. However, as no "control unit" exists[22], it is impossible to know what would have happened otherwise.

Nonetheless, IMF officials have fiercely defended their stand and argued that raising interest rates was unavoidable in order to restore macro-stability. M. Camdessus[23] pointed out that the key lesson of the "tequila crisis" in 1994-95 in Latin America was that interest rates should stay high temporarily to rebuild investors' confidence, even if this measure worsened the situation for banks and corporations. Furthermore, Camdessus argued that IMF programs in Asia and more specifically in

[20] *Digital Chosun Ilbo* (1998), "OECD Criticizes IMF'd Korea Bail-out plans: OECD's 1997-98 Annual Review/Korea", July 26th.

[21] Bustelo, P. (1998a), "El FMI y las crisis en Asia oriental, ¿quiebra de un modelo de desarrollo?", VI Jornadas de Economía Crítica, Málaga, marzo de 1998, mimeographed.

[22] The term "control unit" here makes reference to the term "control group." In many empirical sciences, the term control group stands for the group that remains uninfluenced during the study or experiment period.

[23] See Camdessus, M. (1998), "The IMF and Its Programs in Asia", Remarks at the Council of Foreign Relations, International Monetary Fund, mimeographed.

Korea, aimed at massive restructuring of financial and corporate sectors. Macroeconomic stabilization plans were only accompanying measures to make the restructuring more viable.

6.2. Structural adjustments and key reforms

Historically, the Korean people has been used to much suffering: fifty years of Japanese control, a civil war that split the country into two irreconcilable political and economic regimes, an exhausting post-war characterized by a tremendous poverty, and a harsh economic adjustment to quinquennial plans for more than three decades.

This background is, in principle, an advantage to overcome the current economic problems. Koreans certainly have a strong national consciousness and a set of self-learned crisis management skills. For these reasons, the necessary restructuring programs should be implemented smoothly, even if labor unrest hinders the reform process from time to time.

The corporate restructuring mainly focuses on large conglomerates, on small and medium sized companies and on state run enterprises. The corporate restructuring process will benefit transparency by forcing companies to present consolidated balance sheets. Moreover, some subsidiaries will be required to close down while the mother companies will have to improve their capital structure[24] and eliminate cross-debt guarantees. Other measures aiming to improve corporate governance include the amendment of the Commerce Law to simplify procedures, the promotion of organizational flexibility, and the smooth exit of non-operative companies.

Financial restructuring refers to banks, insurance companies, securities institutions, investment & trust institutions, and leasing institutions. The reforms of the financial sector are primarily directed towards banks. One of the main objectives for the government is to either merge or close down banks that do not meet the capital adequacy ratio. The Financial Supervisory Commission will inspect reforms and will provide guidance throughout the process.

7. Conclusions

The Korean financial and currency crisis has set an impressive precedent on how global financial and currency markets behave in specific circumstances. The events in Korea have made clear that capital liberalization should be consistent with exchange and interest rate policies. Global markets do not forgive mistakes and do not hesitate to wreck one of the largest economies in the world if the government does not succeed in the planning and implementation of an appropriate policy mix. If we assume that the crisis is the result of pure financial panic, it is certainly hard to define mid- or long-term economic policies that may avoid it. Some authors[25] suggest that restrictions on short term capital flows could help to avoid the negative effects of highly volatile markets on economic structures similar to that of Korea.

However, if we consider that the Korean crisis is a matter of deeply rooted economic problems, policy advice should be certainly given much more weight. This view is perhaps more consistent with the policies required under the IMF bailout

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[24] Debt/equity ratio for Korean top 30 business groups surpassed 300% on average. See tables 4 and 5 for detailed data on *chaebol*.

[25] Stiglitz, J. (1998a), "Sound Finance and Sustainable Development in Asia", Keynote address to the Asia Development Forum, Manila, March 12, 1998, mimeographed.

agreement. Yet, as the IMF insisted on closely chaperoning the Korean economy to its recovery, the set of solutions including high interest rates and monetary control policy mix led the country to a total debacle. In summary, the financial and currency crises has surely tarnished Korea's reputation as the paradigm of economic development. It is still unclear what were the real causes of the crisis and if an appropriate policy mix could have contributed to palliate it significantly. It is true that the passive attitude maintained by the Korean government did not help, but neither did the draconian measures imposed by the IMF.

The Korean crisis will remain as a woeful event that will undoubtedly provide invaluable lessons to economists and policy makers and that should help to predict and prevent similar crises in the future.

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Statistical Appendix

Table 1. Republic of Korea: Macroeconomic Indicators.

	80-85	86-91	1992	1993	1994	1995	1996
Real GDP growth	6.3	9.9	5.1	5.8	8.6	8.9	7.1
CPI Inflation	10.9	6.1	6.3	4.8	6.2	4.5	4.9
Corporate bond yield	19.0	15.1	16.2	12.6	12.9	13.8	11.9
M2 growth rate	20.6	18.8	18.4	18.6	15.6	15.5	16.2
Fiscal balance/GDP	-2.5	-0.2	-0.7	0.3	0.5	0.4	0.3
Current account/GDP	-3.8	3.0	-1.5	0.1	-1.2	-2.0	-4.9
Foreign reserves (US$b)	7.1	12.2	17.1	20.3	25.7	32.7	33.2

Source: Bank of Korea, Ministry of Finance and Economy

Table 2. Main patterns of the currency crisis in Korea

	80-84	85-89	90-94	95.12	96.6	96.12	97.3	97.6	97.9	97.12
Foreign Reserves/ Short-term Debt (%)	63.5	104.2	93.2	72.2	-	54.7	47.9	54.8	46.4	39.8
Foreign Reserves/ Imports (Times)	3.3	2.9	2.6	2.9	3.2	2.7	2.3	2.7	2.4	1.6
External Debt/GNP	48.8	30.2	13.7	17.3	-	21.8	23.0	-	24.9	25.1
Current Account/GNP	-4.6	4.2	-1.3	-2.0	-2.8	-4.9	-5.6	-5.3	-4.1	-1.3
Current Account Plus FDI/GNP	-4.6	4.4	-1.5	-2.4	-3.3	-5.3	-5.9	-5.6	-4.4	-

Source: Bank of Korea, *Monthly Statistics*, various issues.

Table 3. Evolution of relevant indicators

		KDB spread (bp)	Spot Rate (won/USD)	Forward Rate (won/USD)	Corporate Bond Yield (%)	KOSPI
1996	9/27	59	825	834	12.4	793
	12/27	56	843	860	12.7	651
1997	1/31	57	861	885	12.0	685
	2/28	63	863	881	12.4	676
	3/31	72	897	912	12.5	677
	4/30	85	892	902	12.5	703
	5/30	85	891	899	11.8	746
	6/30	85	888	896	11.7	745
	7/31	90	892	909	11.9	726
	8/29	120	900	940	12.1	704
	9/30	119	914	948	12.6	647
	10/31	269	965	1,082	12.6	470
	11/28	277	1,112	1,233	15.6	411
	12/23	693	1,965	1,830	31.0	366
1998	1/30	357	1,689	1,585	18.5	558
	2/27	335	1,633	-	20.5	548

Notes: (1) KDB spread: the yield difference between the KDB global bonds due 2006 and the U.S. treasury securities with comparable maturity. (2) Forward rate: three-month NDF forward exchange rate of the Korean won per U.S. dollar. (3) Corporate bond yield: the yield of three-year corporate bonds in Korean domestic market. (4) KOSPI: Stock Price Index

Source: Park, Daekeun and Changyong Rhee (1998), *op. cit.*

Table 4. Financial Conditions of Top 30 Korean Chaebol at the end of 1996 (in hundred million won and %).

Chaebol	**Total Assets**	**Debt**	**Sales**	**Net Profit**	**Debt/Equity Ratio**
Samsung	508.6	370.4	601.1	1.8	268.2
Hyundai	531.8	433.2	680.1	1.8	439.1
Daewoo	342.1	263.8	382.5	3.6	337.3
LG	370.7	287.7	466.7	3.6	346.5
Hanjin	139.0	117.9	87.0	-1.9	556.9
Kia	141.6	118.9	121.0	-1.3	523.6
Ssangyong	158.1	127.0	194.5	-1.0	409.0
Sunkyong	227.3	180.4	266.1	2.9	385.0
Hanhwa	109.7	97.2	96.9	-1.8	778.2
Daelim	57.9	45.9	48.3	0.1	380.1
Kumho	74.0	61.2	44.4	-0.2	477.9
Doosan	64.0	55.9	40.5	-1.1	692.3
Halla	66.3	63.2	52.9	0.2	2067.6
Sammi	25.2	25.9	14.9	-2.5	3245.0
Hyosung	41.2	32.5	54.8	0.4	373.2
Hanil	26.3	22.3	13.0	-1.2	563.2
Donga Construction	62.9	49.1	38.9	0.4	355.0
Kohap	36.5	31.2	25.2	0.3	589.5
Jinro	39.4	39.0	14.8	-1.6	8598.7
Dongguk Jaekank	37.0	25.4	30.7	0.9	210.4
Lotte	77.5	51.0	71.9	0.5	191.2
Kolon	38.0	28.9	41.3	0.2	316.5
Haitai	34.0	29.5	27.2	0.4	658.3
Sinho Jaeji	21.3	17.7	12.2	-0.1	489.5
Anam Industrial	26.4	21.8	19.8	0.1	478.1
Dongguk Muyok	16.2	13.6	10.7	-0.2	587.9
New Core	28.0	25.9	18.3	0.2	1224.0
Bongil	20.3	18.3	8.7	-0.9	920.5
Hansol	47.9	37.1	25.5	-0.1	343.2
Hansin Kongyong	13.3	11.5	10.6	0.0	648.8

Source: *Chosun Ilbo*, November 29, 1997.

Table 5. Profitability of Korean Chaebols. ROIC in 1992-1996.

Chaebol	**1992-96**	**1996**
Hanbo	3.0%	1.7%
Sammi	2.9%	3.2%
Jinro	2.7%	1.9%
Kia	18.9%	8.7%
Dainong	6.8%	5.5%

Source: LG Economic Research Institute

Table 6. Foreign Liabilities and Assets (toward BIS Reporting Banks)
(US$ billion)

Korea	**1993**	**1994**	**1995**	**1996**	**1997**	**1997-Q1**	**1997-Q2**	**1997-Q4**
Foreign Liabilities	45.22	60.97	83.26	109.15	103.78	113.42	118.25	104.71
Foreign Assets	15.20	20.54	25.10	29.07	41.28	33.04	35.87	41.79
Net Liabilities	30.02	40.43	58.16	80.08	62.50	80.39	82.38	62.92
Foreign Liabilities (non-banks)	10.59	13.49	17.91	24.07	25.18	25.98	26.53	25.40
Foreign Assets (non-banks)	1.45	2.29	3.58	3.47	2.24	3.42	3.06	2.28
Net Liabilities	9.14	11.20	14.33	20.61	22.94	22.57	23.46	23.13
Foreign Liabilities (banks)	34.63	47.49	65.35	85.08	78.60	87.44	91.72	79.31
Foreign Assets (banks)	13.75	18.25	21.52	25.61	39.04	29.62	32.80	39.52
Net Liabilities	20.88	29.24	43.83	59.47	39.56	57.82	58.92	39.79

Source: Bank of International Settlements (BIS), *International Banking and Financial Market Developments*.