

**The 1997-98 Korean Financial Crisis:
Causes, Policy Response, and Lessons**

Presentation

by

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Let me first say how pleased and honored I am to take part in this important conference organized to explore ways in which future financial crises in emerging markets might be prevented. I believe I have been asked to make a presentation to you today partly because of my own involvement with the Asian financial crisis as it affected Korea in the 1997-98 period.

In November 1997, Korea was hit by a currency-cum-banking crisis that left it no option but to seek official assistance from the IMF. Thanks to the help of the IMF, other multilateral institutions, and many of its friends abroad, Korea was able to avoid the worst possible scenario, i.e., a sovereign default. Since the crisis, Korea has implemented many institutional and policy reforms not only in line with its agreement with the IMF but also on its own judgment. As a result, Korea today is regarded by many as a country that has gone far toward strengthening its financial sector and, thus by implication, not a country likely to become a victim of another financial crisis.

My presentation focuses on four major questions: (1) what brought the financial crisis to Korea? (2) What did Korea do with the IMF, other international organizations, and governments to address the crisis immediately? (3) What institutional and policy reforms has Korea implemented to reduce the likelihood of another crisis? (4) What lessons, if any, can we draw from the Korean experience for the prevention of similar crises in Korea and elsewhere in the future?

Before making my presentation, please allow me to make one disclaimer. Unlike many of you, I do not make a living thinking about these questions in the regional or global context, so I hope you will forgive me if I try to answer these questions only in the Korean context. I should also mention that in considering these questions, I will make use of the balance sheet approach that was well articulated in one

of the outstanding reports issued by the IMF a few years ago.¹ As all of you know all too well, in analyzing financial crises the balance sheet approach makes extensive use of risks due to maturity mismatch, currency mismatch, capital structure mismatch, and solvency risk of a country or an organization under study.

I. What Brought the Crisis to Korea?

In 1990, Korea's current account balance started to deteriorate because of rising inflation, appreciation of the Korean won, and the recession of the world economy. The current account in 1991 recorded a deficit of \$8.7 billion, which was more than four times the level of the preceding year. In order to finance the growing current account deficits, the government encouraged capital inflows. In part to achieve this objective, in 1991, capital account liberalization was accelerated by amending the Foreign Exchange Management Act. The limited capital account liberalization implemented resulted in substantial capital inflows. However, as policymakers were more concerned about the effect of these inflows on the competitiveness of Korean exports through the appreciation of the Korean won, they tended to overlook the resulting financial instability. In 1993, the Korean government also announced a blueprint for financial sector liberalization that deregulated restrictions on asset and liability management of financial institutions. However, the government neglected the need for adequate prudential regulation in this move. This led to an increase in the short-term foreign-currency debts of financial institutions. Furthermore, as part of the requirements for joining OECD in 1996, the government implemented further financial deregulation and

¹ Allen, Rosenberg, Keller, Setser and Roubini, 2002.

capital market opening. But it chose to liberalize short-term capital inflows ahead of long-term capital inflows.²

Table 1. Korea's External Debts, Usable Gross Reserves, and Debt-Equity Ratios¹⁾
(Unit: US \$, billion)

	1994	1995	1996	1997	1998	1999	2000
Total External Debts	89.8	119.8	157.4	174.2	163.8	152.9	148.5
Short-term debts	38.5	54.9	75.9	63.8	39.0	42.5	49.4
Long-term debts	51.4	64.9	81.5	110.5	124.9	110.5	99.0
Foreign currency	89.5	119.4	156.9	173.9	162.7	149.9	144.0
Korean won	0.3	0.4	0.4	0.3	1.1	3.0	4.4
Government	7.2	6.6	6.1	11.2	15.9	19.8	19.2
Short-term debts	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Long-term debts	7.2	6.6	6.1	11.2	15.8	19.8	19.2
Monetary authority	0.8	0.7	0.6	11.5	22.0	12.8	11.3
Short-term debts	0.1	0.1	0.1	0.1	0.3	1.2	1.1
Long-term debts	0.7	0.7	0.5	11.4	21.7	11.6	10.1
Banking Sector	48.4	72.0	99.4	91.1	72.5	67.6	61.8
Short-term debts	29.8	44.3	61.1	49.2	31.1	33.8	37.7
Long-term debts	18.6	27.7	38.3	41.8	41.4	33.9	24.1
Other Sector	33.5	40.4	51.3	60.5	53.4	52.7	56.2
Short-term debts	8.5	10.5	14.7	14.4	7.5	7.5	10.6
Long-term debts	24.9	29.9	36.6	46.1	45.9	45.2	45.6
Usable gross reserves	21.5	28.5	29.4	9.1	48.5	74.1	96.1
Debt-Equity ratios in manufacturing (%)	302.5	286.8	317.1	396.3	299.2	199.7	215.3

Note: 1) End of period

Sources: Bank of Korea (1998, 2003), Chopra et al (2001), Ministry of Finance and Economy

Indeed, the government in effect discouraged long-term foreign borrowing by business firms as it required detailed disclosure on the uses of the funds as a condition for its permission. On the other hand, short-term borrowing was mainly regarded as

² Y. C. Park, W. Song, and Y. Wang, 2004, 15-17.

trade-related financing requiring no strict regulation.³ These de facto incentives for short-term borrowing led banks and business firms to finance long-term investments with short-term foreign borrowings. The result was that in the banking sector, short-term external debts accounted for 61% of total external debts in 1996 (See Table 1). Needless to say, such policies and practices created not only maturity mismatches but currency mismatches as well.

Furthermore, the government policy allowed a rapid increase in the number of financial institutions engaged in foreign currency-denominated activities in a rather short time. This was particularly the case with merchant banks. Their number increased from six to thirty from 1994 to 1996. Many of these merchant banks were owned by chaebols, and they acted as the funding channel for chaebol investments. These merchant banks were heavily engaged in borrowing cheap short-term Japanese funds from Hong Kong to finance mostly long-term investment projects. Commercial banks also borrowed abroad at short-term maturities to compete with the merchant banks for business. This further aggravated maturity as well as currency mismatches on balance sheets of the financial and business sectors in Korea. This was well demonstrated in the fact that 80% of short-term foreign debts were put into 70% of long-term assets.⁴ At the end of 1997, total short-term external debts amounted to \$63.8 billion while usable gross foreign reserves were only \$9.1 billion. In short, by then it was impossible for

³ As pointed out by Leslie Lipschitz during the discussion session after this presentation was made based on an earlier version, it is important to note that Korea's policy bias in favor of liberalizing short-term capital inflows had a lot to do with the desire of financial institutions in Korea to "monopolize" their role as an intermediary between foreign suppliers of short-term funds and domestic users of foreign funds for long term investments.

⁴ Park, Song, and Wang, 2004, 18

Korea to solve the so-called “double mismatch” problems on its own.

As noted already, the mismatch problems stemmed significantly from weak prudential supervision. The accounting and disclosure standards expected of financial institutions were below international best practices, and market-value accounting was not widely practiced. Due to weak financial supervision and high chaebol dependence on bank financing, risk was concentrated on banks. Furthermore, chaebol leverage was extremely high for two reasons. In the 1970s and ‘80s, they enjoyed preferential access to credit, and the nation’s tax laws allowed deductions for debt-related expenses. In any case, the average debt-equity ratio for the manufacturing sector reached nearly 400% in 1997, double the OECD average, and the average ratio for the top 30 chaebols exceeded 500%. Obviously Korea was suffering from a high dose of capital structure mismatches as well.

It is significant to note that in spite of all the risks associated with these mismatches that should have been evident long before the onset of the 1997-98 crisis, Korea was, at least on the surface, doing fine economically. Korea was still one of the world’s fastest growing economies with an average annual growth rate of 7-9% and a modest inflation rate of about 5% a year for the three years leading up to the crisis. The ratio of its foreign debt to GDP was less than 30%, the lowest among developing countries and less than that of many industrially advanced countries. In addition, the government’s budget was balanced. Based on these macroeconomic indicators, even IMF pre-crisis surveillance concluded that Korea was not likely to become a victim of the financial crisis that was beginning to engulf Southeast Asia in the summer of 1997.⁵ Thus, mismatches alone cannot fully account for the actual crisis. We need some

⁵ IMF, 2003, 2-3.

explanation on what triggered the actual crisis.

In my view, there were at least three major developments that served as triggers for the Korean financial crisis of 1997-98. One of these was the movement of the US dollar. A large part of the investment in Korea, and for that matter elsewhere in the Asia-Pacific region during the first half of the 1990s, was undertaken with the expectation that the dollar would stay weak. Moreover, while the dollar continued to weaken, the prospect of borrowing in the dollar was too great a temptation for Asian investors to resist. However, from mid-1995, at about the time Mr. Robert Rubin took over the US Treasury, Washington reversed its policy of benign neglect of the dollar. For better or for worse, the US considered a strong dollar in its national interest. As the dollar became stronger, particularly against the Japanese yen, Korea's export competitiveness suffered. This was the case for two reasons. As the US dollar weighed heavily in the determination of the Korean won under the managed float system, the Korean won failed to depreciate as much as the yen. In addition, Korean exports were similar in composition to Japanese exports and hence competed directly in the international markets. Consequently, as the dollar became stronger against the Japanese yen, Korea not only experienced an accelerated increase in its trade deficit, but also a severe drop in the profitability of investments undertaken for exports in particular. Some large business conglomerates ran into financial difficulties around this time and non-performing loans (NPLs) at Korean banks sharply increased, thus undermining the financial soundness of domestic banking institutions.

The weakening Japanese yen had yet another consequence. It dried up the flow of Japanese direct investment into Korea and other Asian countries, thus bringing to an end the investment boom that had been going on in the region. As the yen weakened,

the value of dollar-denominated assets held by Japanese banks became larger in yen terms. As a result, the BIS ratios of Japanese banks fell, which in turn, forced them to recall loans from their clients in Japan as well as from those in Korea and other countries in Asia.⁶ This had two consequences: (a) an increasing frequency of refusal on the part of Japanese banks to roll over their loans to both domestic and foreign clients and (b) a strain on the foreign exchange reserves of the countries, including Korea, giving rise eventually to a credit crunch for the whole region.

A second trigger was a series of domestic developments that took place in 1997. In January, the Hanbo group began to experience serious financial difficulty. In Korea, especially since the days of the government-led industrialization drive, there had been the widely accepted notion that when the chips were down the government “would not dare to allow a big horse to die,” meaning that a large conglomerate whose survival had serious consequences in terms of the stability of the whole economy would receive a financial bailout. There is little question that in line with this notion the Hanbo management expected that the government would arrange a bailout loan for the group at the very last minute. However, the government economic policy team then in office refused to honor the notion. The team truly believed that in an economy run on market principles, a chaebol group should stand on its own feet. Furthermore, there were no resources in the public sector to provide help to chaebols in financial difficulty such as Hanbo. The consequence was the beginning of bankruptcy proceedings for Hanbo, Sammi, Jinro, and others.

In the summer of 1997, yet another significant chaebol group began to experience financial difficulties. This time it was Kia, an auto producer. Towards Kia,

⁶ Kwan, 1998, 32.

the government wanted to apply the same policy it had applied to Hanbo and other groups. However, the nation's political leaders, who were concerned with the impact of such economic policy on the presidential election campaign then underway, together with labor union leaders, felt that this was not acceptable. Hence, they pressed the government to provide a bailout for Kia. In the subsequent tug-of-war between the government and political leaders, a clear decision on Kia was delayed. This greatly contributed to growing doubt in the minds of foreign investors on whether or not the government had the will and power to pursue a consistent policy to deal with a crisis in the making.

The third trigger was a combination of international and domestic developments. While the doubts in the minds of foreign investors were growing, the currency crisis of Southeast Asian countries continued to deepen. This soon developed into a region-wide contagion. In late October 1997, the contagion spread to Hong Kong in the form of a speculation attack on the currency and a sharp decline in the stock market. Although the currency attack subsequently failed, at the time it was not clear whether Hong Kong government authorities had the capacity to prevent the contagion from developing into a full-fledged crisis. With Hong Kong in difficulty, foreign creditors, particularly American and Japanese banks, refused to roll over their loans to Korean financial institutions. This forced the Korean government to use its limited foreign currency reserves to help Korean financial institutions honor their short-term obligations. In this process a substantial portion of the nation's foreign reserves was advanced to the overseas branches of Korean banks. This quickly reduced the nation's usable foreign reserves to a dangerous level.

Then on November 16, the Korean government made a last ditch effort, as it

were, to restore foreign investors' confidence in its ability to save itself by trying to have a financial reform bill package passed by the national legislature. Afraid of possible adverse effects of passing such a reform package on the forthcoming presidential election, however, all the political parties, including the Democratic Liberals, the party then in power, refused to act on the reform package. This was literally the proverbial last straw that broke the camel's back. The withdrawal of foreign funds accelerated even more, forcing the government to officially request help from the IMF on November 21.

II. How Was the Crisis Immediately Addressed?

The crisis in Korea was not a traditional balance of payment crisis due to excessive external debt. It was truly a liquidity crisis due to serious mismatches in maturity, in currency, and in the capital structure in the balance sheets of the financial and non-financial sectors of the economy. Since the crisis was a liquidity crisis, a rapid infusion of hard currency reserves was critical more than anything else.

However, what the IMF and the Korean government agreed upon on December 3, 1997 was far from this. The total amount of money that the IMF together with other international financial institutions offered to bail out Korea was \$58.4 billion. Out of this, \$23.4 billion was reserved as a second line of defense that would be made available to Korea by G-7 countries only if the initial amount of \$35 billion contributed by the IMF and other multilateral institutions proved inadequate. The disbursement of the \$35 billion was to be spread over more than two years until the year 2000, with each installment conditioned upon the progress Korea was to make in structural reforms and

the further tightening of its monetary and fiscal policies. It is worth noting that the amount Korea was allowed to withdraw immediately after reaching the agreement with the IMF on December 3 was \$5.6 billion. Korea was allowed to withdraw an additional \$3.5 billion on December 18. Thus, the total amount Korea was able to withdraw during this 15-day period was only \$9.1 billion.

Foreign banks judged these amounts to be altogether inadequate, even in terms of meeting the nation's short-term obligations. Given the large amount of short-term obligations and the precarious level of official foreign reserves, this judgment became a self-fulfilling prophecy. As rollovers were refused, the limited foreign reserves were rapidly depleted. An internal memorandum prepared by the Bank of Korea on December 18 that took into account both the inflows of foreign funds expected during the ensuing 12-day period plus the foreign reserve balance on hand and the outflows expected to take place during the same period showed that the foreign reserve balance expected on December 31 would be anywhere from negative \$600 million to positive \$900 million.⁷ No wonder foreign creditors further accelerated the withdrawal of their funds from Korea, pushing the country to the verge of a sovereign default in less than two weeks after the initial agreement was signed. Korea was able to avoid this worst possible situation only with the help of the United States.

On December 19, at the Korean government's request, the U.S. government not only persuaded the IMF to quickly enter into a new round of negotiations with the Korean government for a further frontloading of bailout money, it also exerted its influence on the financial institutions of G-7 countries to roll over their short-term

⁷ The source of these numbers is an informal memorandum made available to the author at the time he visited on behalf of the Korean government the US Treasury on December 19, 1997.

credits to Korea for one month. In return for this favor, they were promised to have an opportunity to reach an agreement with the Korean government in restructuring their outstanding short-term loans to Korea. In accordance with this promise, the Korean government and foreign banks managed to reach an agreement on January 28, 1998 that led to restructuring nearly 95% of Korea's short-term debt by March 18, 1998. However, it is important to note that in rescheduling these debts, foreign banks charged extraordinarily high interest rates, ranging from 2.25% to 2.75% point above the then prevailing six-month LIBOR interest rate of 5.66%.

With the success of the rollover and maturity extension and authorities' moves to implement financial and corporate reform programs, the market's view on Korea improved dramatically. The won-dollar exchange rate recorded an all-time high of 1,965 won to the dollar on December 24, 1997. It declined to a range of 1,600-1,800 in January 1998, 1,400 by the end of March, and then stayed at 1,200 won at the end of the year.⁸

III. What Major Reforms Have Been Implemented Subsequently?

It is beyond the scope of this presentation to give a definitive treatment of the financial sector reforms Korea has implemented since the 1997-98 crisis. Presumably, these reforms have been undertaken to achieve two overriding goals: (1) to reduce the likelihood of a similar crisis in the future by cleaning up the balance sheets of financial institutions and (2) to evolve a financial system that can best help the nation resume growth with stability. At this point, it is not at all clear if Korea has achieved the second

⁸ IMF, 2003, 20.

goal. By 2002, Korea's growth seemed to have rebounded, but over the past few years, since 2003, growth has been lackluster at best. For the past three years Korea's average annual growth rates have been in the 3-5% range, which is generally regarded below the nation's potential.

In any case, the contents and significance of the reforms that have been actually undertaken to date can best be reviewed under six headings: (a) reforms designed to strengthen the legal and regulatory infrastructure, (b) reforms implemented to rehabilitate the financial sector, (c) reforms aiming at strengthening prudential regulation, (d) reforms to reduce moral hazard, (e) reforms to promote capital account liberalization and (f) reforms to strengthen the corporate governance of financial institutions.

Strengthening legal and regulatory infrastructure. Obviously the first step in comprehensive financial-sector reform was laying out a statutory and regulatory framework to implement necessary reforms. On December 29, 1997, thirteen financial bills, including a bill to establish a consolidated financial supervisory authority, were enacted. It is ironic to note these bills were for the most part based on recommendations made by the Presidential Financial Reform Commission that had been launched in January 1997, and the bills were for all practical purposes the same bills the national legislature had refused to act on on November 16.

In any case, thanks to this legislation, the Financial Supervisory Commission (FSC) was established on April 1, 1998, and in January 1998, existing separate financial supervisory organs were merged into a consolidated Financial Supervisory Service (FSS) to serve as an administrative body for the FSC. In addition, the Financial Industry Restructuring Act was amended so as to give FSC and FSS effective statutory authority

to order write-offs, mergers, suspension, and closure of ailing financial institutions. Earlier, the Korea Asset Management Corporation (KAMCO) was reorganized and an NPL resolution fund was created within KAMCO to facilitate the purchase of non-performing loans from financial institutions.⁹

Rehabilitating financial institutions. Korea's banking sector had two major problems: inadequate capitalization and poor-quality assets. This was of course due to the large number of chaebol bankruptcies that damaged banks' balance sheets. These balance sheets carried many non-performing loans. In order to address these problems, the government had to step in with public funds. Although the injection of public funds was sure to generate public controversy, the government had no choice if it wanted to have a workable financial system for the nation. Once the government decided to inject public funds to rehabilitate the financial system, the first question it had to resolve was what exactly constituted "non-performing loans." Before the crisis, only loans in arrears for six months or more had been classified as non-performing loans. In estimating the true magnitude of the NPLs, the government decided to include loans in arrears for three months in line with internationally acceptable standards. Using this standard, the government estimated the total size of the outstanding NPLs at 118 trillion won or roughly 28% of Korea's GDP in 1998. This was twice the amount of NPLs estimated earlier on the old asset classification standards.¹⁰

The actual amount of funds disbursed by 2002 substantially exceeded both estimates. It was no less than 160.4 trillion won, or 30% of the 2002 GDP. Two thirds of public funds were raised through bonds issued by KAMCO and Korea Deposit

⁹ Lim and Hahm, 2004, 16.

¹⁰ Lim and Hahm, 2004, 18.

Insurance Corporation (KDIC). More than 40 trillion won was used to settle deposit insurance obligations and to provide liquidity to distressed financial institutions. It is safe to presume this money is lost.¹¹ The rest was for recapitalization and purchase of NPLs with better prospects for recovery. In June 1998, five banks with negative BIS ratios were closed, and seven banks were required to submit restructuring plans by the end of July 1998.

In the non-bank financial sector, merchant banks required urgent policy attention. Merchant banks were heavily engaged in activities such as limited deposits, loans, securities investment, international financing, and leasing. When the Hanbo group went bankrupt in March 1997, merchant banks found themselves under an unsustainable burden of NPLs. The subsequent bankruptcies of major corporate groups such as Sammi and Jinro in 1997 further eroded market confidence in merchant banks and exacerbated their borrowing difficulties both at home and abroad. In December 1997, 14 were shut down. Later, the licenses of 22 additional merchant banks were revoked, and three additional merchant banks merged with others. Consequently, the number of remaining merchant banks was reduced from 30 at the end of 1997 to only three by June 2003.¹²

Other non-bank institutions including securities companies, insurance companies, investment trust companies, mutual savings and financial companies, credit unions, and leasing companies went through more or less similar restructuring processes as commercial and merchant banks.

Strengthening prudential regulations. In December 1999, under the terms

¹¹ Lim and Hahm, 2004, 20

¹² Ahn and Cha, 2004, 9

agreed with the IMF, the Korean government strengthened prudential regulation by introducing a forward-looking approach in asset classification, taking into account the future performance of borrowers in addition to their track record in debt servicing. In March 2000, the asset classification standards were further strengthened with the introduction of the enhanced FLC classifying loans as non-performing when future risks are significant even if interest payments have been made without a problem. Other measures the FSC took over the past several years to strengthen prudential regulations include strengthening regulations on short-term foreign borrowing by banks, strengthening limits on bank lending to large borrowers, and strengthening disclosure requirements for financial institutions

Reducing moral hazard. In addition to tightening asset classification and cleaning up non-performing loans, the government took forward-looking measures to improve the efficiency and stability of the financial system through reduction in moral hazard. The most significant institutional reform in this area was the introduction of partial deposit insurance. Before the crisis, depositors and investors had typically assumed that their assets were fully protected by the government. Starting January 2001, the deposit insurance limit was set at 50 million won per person per financial institution. The introduction of partial protection was initially opposed by many who believed that it would increase the instability of the financial system by inducing a sudden and large transfer of deposits among institutions. Such side effects, however, failed to materialize, and partial protection introduced market discipline by providing incentives to depositors to seek out healthy institutions.¹³

As for moral hazard on the part of lenders to large corporate borrowers as well

¹³ Ahn and Cha, 2004, 4-5.

as borrowers themselves, massive corporate failures served as credible signals that the government's implicit guarantee regime had indeed ended. Indeed of the 30 largest business conglomerates in 1996, 14 had gone bankrupt or entered into out-of-court workouts by the end of 1999.¹⁴

Promoting capital account liberalization. In order to further liberalize capital account transactions, the government has taken numerous measures over the past several years. For example, a free-floating foreign exchange rate system was adopted in December 1997. Restrictions on M&As by foreigners were abolished in February 1998. Furthermore, foreign investment in Korean equities listed in the Korean Stock Exchange and KOSDAQ was fully liberalized in May 1998, and foreign investment in the equities of non-listed firms was permitted in July 1998. The government also implemented full liberalization of foreign investment in Korean bonds in December 1997, full liberalization of money market instruments in May 1998, and abolition of restrictions on foreign ownership of land and real estate on the basis of national treatment in July 1998. It should also be noted that beginning this year, no advance permission is required for any international capital account transactions; many transactions, however, need to be reported *ex post*.

Strengthening corporate governance of financial institutions. In order to strengthen the governance of financial institutions many measures have been taken. They include allowing foreigners to own commercial banks and become bank executives in December 1997 and May 1998, respectively, improving governance of financial institutions and strengthening the rights of commercial bank minority shareholders in January 2000, and raising the limit of bank ownership of domestic

¹⁴ Lim and Hahm, 2004, 21-22.

residents from 4% to 10% in April 2002.

What have been the results of all these reforms designed to achieve multiple objectives? Despite various potential risks remaining in the financial sector, the overall outcome seems to have been positive. As a result of extensive restructuring of the financial sector, many insolvent or very weak institutions have been weeded out. As a matter of fact, 787 insolvent financial institutions, or 37.5% of the total, were closed or merged by June 2003. In addition, both the capital adequacy ratios and profitability of most of the nation's financial institutions have greatly improved. For example, the BIS ratios of the nation's commercial banks are now comparable to those in other industrially advanced countries,¹⁵ and the commercial banks began to earn profits in 2001. Last year they recorded 24.5 trillion won in profits, the highest in history. What's more, both financial institutions and their customers by now have freed themselves from the high dose of moral hazard they had been suffering from.

In addition, thanks to those reforms that have liberalized capital account transactions, trading volume in Korea's foreign exchange market has grown significantly since the crisis. Some of the increasing foreign exchange derivative activities reflect the increasing hedging activities. Moreover, the foreign exchange authorities in recent years have shown remarkable restraint in intervening in the foreign exchange market, producing a noticeable increase in exchange rate flexibility. The money market also has become liquid at least for maturities below 90 days. The market for corporate and government bonds has become deep and active, and recently there has also been issuance of 10-year treasury bonds, which enhances the market's ability to

¹⁵ At the end of March 2006, the average BIS ratio of Korea's commercial banks stood at 13.2%.

price risk for long maturities.

Before closing this part of the presentation, I wish to make one more observation. Both the FSS and the Bank of Korea are now engaged in macro-prudential surveillance and an early warning system. The Macro-Prudential Supervision Department at the FSS prepares the quarterly Early Warning Report on Financial Sector based on an early warning model for individual major sub-sectors of the financial system. In addition, the FSS publishes monthly monitoring reports on stability indicators. The indicators for banks include the delinquency ratio, short-term liquidity, and the losses from securities valuation. Also, stress tests have been run by supervisory departments of the FSS, focusing mainly on the impact of interest rates, exchange rates, housing prices, and oil prices. The Bank of Korea also performs stress tests, operates an early warning system, and publishes a Financial Stability Report. Hopefully all these exercises will enable Korea to detect any weakness in its financial system in a timely manner so as to help the nation avoid another financial crisis.

IV. What Lessons Shall We Draw?

The final question I will address is what lessons shall we draw from the Korean experience. I have seven points to make.

The first point relates to the sequencing of capital account liberalization. Korea's decision to liberalize short-term capital flows ahead of long-term capital flows was a serious mistake. Korea should have realized that short-term capital flows are more volatile than long-term. Korea believed that short-term capital flows are largely related to trade financing. In this day of financial globalization, trade financing accounts for

only a very small part of international capital flows. Anyhow, by liberalizing short-term before long-term flows, Korea accumulated far too much short-term liability, which led to uncontrollable mismatches in maturity and currency.

My second lesson has to do with the superiority of a pure floating exchange rate system over a managed floating system. Under a managed floating system, the market mechanism is hindered from correcting trade or current account imbalances. Furthermore, in today's world it is beyond the capacity of policymakers to adjust exchange rates correctly in a timely fashion. Not only do they not have information needed for this task, but they are also often shackled by political forces in making necessary adjustments in a timely way. What's more, in periods leading up to a full-fledged crisis, policymakers often fear that if they start making big adjustments, at once the exchange rate will freefall, leading to a situation beyond their control. As a result, they make small adjustments, which encourage speculative attacks on the currency.

My third point relates to prudential supervision. Korea has rightly strengthened prudential supervision since the crisis, but there is a need to be careful about further strengthening. In a country that has had a long tradition of running the economy on government initiative, further strengthening of prudential supervision can bring about more regulations that can stifle the development of a sound financial system. What Korea seems to need at this point is twofold. More of its regulatory functions should be handed over to self-regulatory organizations in the industry. In addition, before extending prudential regulations Korea ought to pay greater attention to the quality of the personnel performing regulatory functions. Far too many people currently charged with financial supervision have limited exposure overseas. As a result they are uncomfortable, especially when it comes to regulating foreign institutions operating in

Korea.

My fourth point relates to the confidence of foreign investors. It goes without saying that many things are needed to maintain foreign investors' confidence. Transparency on the business and government level is critical. In the absence of transparency on such key economic variables as foreign reserves and policy directions, herd instinct prevails, quickly producing situations beyond control. The rule of law is also critical. Without it, foreign investment does not flow into a country in the first place. If foreign investors begin to lose confidence in the rule of law in a country, they will quickly move their investments elsewhere. What is most critical in times of crisis is, however, the quality of political leadership that enables the government and the nation to do what is required. To increase the probability of high-quality political leadership, perhaps it is time for economists to come up with ideas on how to design good government that is committed to democracy and effective and efficient at the same time. At any rate, in the case of Korea, I am still of the opinion that if the financial legislative package submitted to the national legislature had been passed on November 16, 1997, the international banking community would have had second thoughts before they accelerated the withdrawal of their funds from Korea.

That moral hazard poses a serious challenge in terms of a well-functioning financial system is obvious. In terms of domestic regulations I believe this challenge has been adequately addressed, at least in the Korean context. I have, however, some doubt as to whether this issue has been properly addressed in the international context. From the headlong rush of investment into Asia by international investors in the 1990s, it is difficult to maintain the view that international investors were blameless. Nonetheless, in the course of restructuring debts after the crisis, very few foreign investors were

bailed in. In the case of Korea, they were clearly bailed out. They were the beneficiaries of high interest rates paid in return for rescheduling debts. They rationalized such high interest rates as the price for the increase in sovereign risk due to the crisis. This position is hard to justify. Korea's crisis was a liquidity crisis. Once the IMF and others entered into an agreement to support Korea, the sovereign risk, if any, should have been lower than before the crisis.

My sixth point concerns the need to develop long-term capital markets in Korea and elsewhere. Surely Korea's capital markets today, particularly the equity market, are in much better shape than when the country was hit by the crisis. However, it is true that capital markets in Korea and elsewhere in East Asia have not yet developed to the point where long-term investments can be adequately financed locally.¹⁶ As long as this situation persists, East Asian countries will be compelled to raise capital for their long-term investments elsewhere in the world, such as New York and London. However, even in this global age East Asian companies are not well known to financial institutions in New York and London. As a result, many of them experience difficulty obtaining capital with maturities that meet their requirements. In other words, they obtain capital at a term shorter than they want. In short, as long as long-term capital markets do not develop locally in Asia, Asian countries are bound to suffer to some degree both maturity and currency mismatches. The only way to eradicate this problem in my opinion is to find ways and means to accelerate development of capital markets in Asia and other emerging markets.

My last point has to do with the extent of liquidity a country needs to secure

¹⁶ The term, "locally," should not be interpreted in an overly narrow sense, i.e., not every nation should aspire to develop its own international financial center within its border.

once it is in crisis. I have noted in this presentation that the initial assistance package worked out between the IMF and Korea fell far short of the country's liquidity needs. Recall that the further front loading of funds agreed to at the end of the second round of negotiations was not sufficient to deal with the country's liquidity needs. Only when foreign lenders were persuaded by the US government to keep rolling over the existing short-term debts in return for an opportunity to renegotiate these debts were Korea's liquidity needs met.

We should note that it was principally out of security considerations that the United States government took a series of actions that enabled Korea to meet its liquidity requirements. Put differently, the US felt that unless it helped Korea in a hurry, its security position could be jeopardized, particularly the safety and well-being of some 36,000 US troops then stationed in Korea. This point has disturbing implications for the IMF and others. Suppose another country with a size similar to that of Korea faces a financial crisis today. Under the existing charter, could the IMF arrange a support package that is comparable to the one offered to Korea at the end of renegotiations? In addition, ask yourself who could arrange the kind of international rescue package that was put together under the US initiative. What's more, ask if the US would take the initiative for that country if it had no special security relationship comparable to that of the US and Korea. I would like to invite you all to seriously consider these hypothetical questions.

Thank you very much.

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