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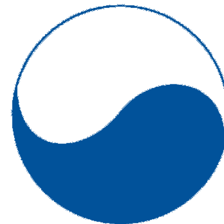

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FINANCIAL INSTITUTIONS AND MARKETS

ASSESSMENT OF THE KOREAN FINANCIAL SECTOR BY THE IMF AND THE WORLD BANK

by Meral Karasulu

In 2001–02 Korea participated in the Financial Sector Assessment Program (FSAP) conducted by the IMF and the World Bank.[1] This article describes the FSAP process in general and the Korea FSAP in particular, focusing on the main findings and recommendations.

The FSAP process

The FSAP is a joint IMF–World Bank effort that was introduced in 1999. It grew out of the vulnerabilities that came to the fore during crises experienced by a number of countries in the 1990s as well as the recognition that resilient, well-regulated financial systems are essential for macroeconomic and financial stability. The program aims to increase the soundness of financial systems, promote financial sector development in member countries, and raise awareness of these issues to help prioritize policy responses by country authorities. Participation in the program is voluntary. Since 1999 more than 100 countries have either undertaken an FSAP or formally committed to do so; 60 country assessments have been completed, and 39 of the 60 countries chose to make the Financial System Stability Assessment (FSSA) report public on the IMF Web site.

The FSAP exercise covers a broad range of issues to assess the systemic stability of the financial sector and its medium-term developmental needs. The key elements of the program are:

- A review of the overall structure, performance, and soundness of the financial system;
- An assessment of the short-term vulnerabilities of the financial sector to macroeconomic and sectoral shocks: in particular, how key sources of risk are being managed, risks to macroeconomic stability stemming from the financial sector, and the capacity of the sector to absorb macroeconomic shocks;
- An assessment of systemic liquidity developments and policies;
- An evaluation of the financial safety net arrangements and the crisis response capacity of the country; and
- An assessment of developmental issues relevant to the financial sector.

The key tools in an FSAP are the assessments of regulations and supervision of the financial sector against international standards and codes (SCs). The SCs provide benchmarks to better identify weaknesses that may contribute to economic and financial vulnerabilities, to enhance transparency, and to foster market efficiency and discipline.

To best serve its objectives, each FSAP exercise is tailored to the specific characteristics and circumstances of each country. For instance, assessments of SCs are conducted only for those principles that are of importance for the stability of the financial system of the country concerned. Similarly, when an analysis is done of the capacity of the financial sector to absorb macroeconomic risks, both the scenarios

1. The FSAP forms the basis of Financial System Stability Assessment (FSSA) reports, which include issues of relevance to IMF surveillance, and of Financial Sector Assessment (FSA) reports of the World Bank, which focus on developmental issues in the financial sector. The findings of the Korea FSAP were discussed by the IMF's Executive Board at the time of the 2002 Article IV discussions, and the FSSA report has been published on the IMF Web site at www.imf.org/external/pubs/cat/longres.cfm?sk=16436.0.

and the magnitudes of the shocks considered take into account the macroeconomic and financial sector framework of the country and the volatility in key macroeconomic variables.

The Scope of the Korea FSAP

In the case of Korea, the scope of the FSAP exercise was determined with a view to taking stock of the reforms and structural changes in the financial sector since the 1997 crisis and assessing remaining weaknesses and further developmental needs of the system.

The origins of the financial crisis that struck Korea in late 1997 can be traced to the structural weaknesses that left the economy vulnerable to an external shock and financial contagion. Although a severe international liquidity squeeze was the immediate trigger, structural weaknesses—a weak financial sector with little commercial orientation and limited ability to price risk, combined with an overleveraged corporate sector suffering from low profitability—were at the core of the problem. In addition, weak regulatory and supervisory arrangements allowed financial institutions to take on excessive risk without an adequate capital base with which to withstand shocks.[2]

The response to the crisis involved wide-ranging reforms in the legal and regulatory framework, restructuring of nonviable financial institutions, efforts to improve the health and competitiveness of the corporate sector, and efforts to address the structural weaknesses that left Korea vulnerable to a financial crisis.[3] In the process, the supervisory oversight has been significantly strengthened, and prudential regulations have been brought closer in line with international best practices. Steps have also been taken to improve the quality of supervision by consolidating supervision into a single independent agency, the FSC and its executive branch, the FSS.

Since the crisis, restructuring has changed the structure of Korea's banking sector radically and enhanced its viability. The number of banking institutions has been significantly reduced, and the problem of nonperforming assets (NPLs) has been largely addressed, mainly through the efforts of the Korea Asset Management Corporation. The capacity of the system to withstand new shocks was untested, however.[4] Korea's insurance sector was not left unscathed by the crisis. In spite of its size and market power, the insurance sector was a potential weak link in Korea's financial system. With very low capital levels, the sector's economic standing remained an issue. Despite significant restructuring, the investment trust company (ITC) sector remained weak, with poor enforcement of regulations and weak corporate governance; and the government had yet to take steps to privatize the three largest ITCs. Progress in corporate structuring was slow. At the time of the FSAP, some statistics suggested that approximately one in four companies might still be unable to generate sufficient cash flow to meet interest payments, despite the historically low interest rates.[5] These weaknesses in corporate balance sheets reflected the fragile position of the corporate sector prior to the crisis and the fact that reforming the structure of finances, along with other improvements in corporate governance, takes many years to implement.

2. See Cho, Yoon-je, "Financial Crisis of Korea: A Consequence of Unbalanced Liberalization?" (paper prepared for World Bank conference, "Financial Liberalization: How Far, How Fast?" Washington, D.C., 1999) for discussion on how the sequencing of Korea's financial liberalization contributed to the buildup of these structural weaknesses in the system.

3. See Chopra, Ajai, Kenneth Kang, Meral Karasulu, Liang Hong, Henry Ma, and Anthony Richards,"From Crisis to Recovery in Korea: Strategy, Achievements, and Lessons," in *Korean Crisis and Recovery,* ed. David Coe and Kim See-jik (Washington, D.C., and Seoul: IMF and Korea Institute for International Economic Policy, 2002) for a discussion of the origins of the crisis and the restructuring strategy.

4. See Karasulu, Meral, "The Profitability of the Banking Sector in Korea," Republic of Korea—Selected Issues (Washington, D.C.: International Monetary Fund, 2001).

5. According to an analysis by the Bank of Korea (BOK), in 2001, 28.6 percent of companies in its corporate database had interest coverage ratios below 1. However, the small database overrepresented medium-sized companies that were lagging behind; this may have overstated the extent of the problems.

In light of the size of the financial sector and the extent of the changes that had taken place, the Korea FSAP assessed a broad set of SCs. These were the Basel Core Principles for Effective Banking Supervision; the IAIS Insurance Core Principles; the IOSCO Objectives and Principles of Securities Regulation; the Core Principles for Systemically Important Payment Systems (CPSIPS); the OECD Principles of Corporate Governance; and the IMF's Code of Good Practices on Transparency in Monetary and Financial Policies, covering banking, insurance, and securities supervision, the payments system, monetary policy, and deposit insurance, and the assessment of the legal, institutional, and supervisory aspects of anti–money laundering, and combating the financing of terrorism. These assessments provided a broad picture of the regulatory regime in Korea, as well as its transparency.

The FSAP also assessed in detail systemic stability and development issues in the Korean financial sector. In the banking sector, the government has made encouraging strides to reprivatize intervened banks, but it still had sizable control in the sector, including through specialized and development banks, which enjoyed some preferential treatment. Korea's capital markets were among the largest in Asia,[6] even though the development of different segments—the money markets, including foreign exchange market; corporate bond markets; and government bond markets, for example—appeared to remain uneven. The FSAP examined the operation of the capital markets, focusing in particular on several aspects of the market infrastructure.

A first area of concentration was the foreign exchange market, where limited volumes and other impediments had earlier been prevalent and had been identified as contributing to the outbreak of the crisis in 1997. Low liquidity levels made the Korean economy highly susceptible to sharp reversals in market sentiment and speculative attacks, which could be further exacerbated by the absence of liquid derivatives markets. Since the crisis, the authorities have reviewed the operation of the foreign exchange markets and implemented several changes as part of their foreign exchange liberalization agenda.[7] While markets appeared to have deepened as a result of these changes and new instruments were introduced, there were nevertheless concerns that foreign exchange markets continued to remain illiquid and dominated by a few players, with implications for their efficiency and susceptibility to crisis.

The FSAP also investigated the management and operation of public debt markets. It used the IMF/World Bank "Guidelines for Public Debt Management" for reference.[8] Government debt management practices underwent significant changes during and after the crisis. For example, since 1998, a three-year benchmark has been established, primary dealers have been selected, and interest rates have been liberalized. The analysis focused on key issues that remained, including a bunching of maturing issues at the short end of the market, low liquidity for longer-term maturities, and market segmentation due to a proliferation of government-guaranteed paper with differing characteristics.

The corporate bond market was relatively small and illiquid. To stimulate the market, there was a need to overcome possible distortions arising from the roles of the government and of the specialized banks (especially the Korea Development Bank) that have been active in supporting the corporate bond market; for instance, in 2001 they were required by emergency decree to purchase corporate bonds of troubled companies.[9] Past practices of using administered interest rates, minimum guarantees of ITCs, weak risk-man-

6. In U.S. dollar terms at the end of 2001, Korean bond and equity markets were the third largest in Asia, after Japan and Hong Kong.

7. See Ministry of Finance and Economy for a description of the foreign exchange liberalization process: http://english.mofe.go.kr/library/l_book_list.php?t=eh_book_b&d=1.

8. See "Guidelines for Public Debt Management" (Washington, D.C.: World Bank, Public Debt Management Group, 2001), www.worldbank.org/pdm/guidelines.htm.

9. The government strongly encouraged collateralized bond obligations (CBO) and provided partial guarantees to address the credit crunch; CBOs accounted for 60 percent of new issuance in 2000.

agement practices, and distortionary taxes have been identified as obstacles to market development.

Stress-Testing Approach Chosen for Korea

A key element of the FSAP is the stress-testing exercise, which analyzes the ability of the systemically important components of the financial system to absorb macroeconomic and sectoral shocks. Stress testing by its nature has a short-term focus. Its starting point is the most current exposures of the system. The exercise involves estimating the impact of various shocks on the financial system's asset quality and capital adequacy.

Korea's openness, high volatility in key financial variables, and the exposures in the financial sector suggested the type of shocks that were most relevant to consider in the stress-testing exercise. The size of shocks was determined on the basis of historical trends experienced since 1998, which were smaller than those observed during the crisis. This approach was chosen because shocks of the magnitude experienced during the crisis would render the relationships underlying the stress-testing techniques invalid. Furthermore, the structural changes that took place since the crisis would make a recurrence of a crisis of similar magnitude less likely. Nevertheless, the shocks were chosen to be large enough to assess the behavior of the system under considerable stress.

During the examination of the financial system's vulnerabilities, it was recognized that short-term risks may arise from the direct effect of shocks to key macroeconomic variables on bank balance sheets, and from indirect effects through corporate and household balance sheets. In light of this background, the stress-testing exercise consisted of separate sensitivity analyses for the corporate and the household sectors to a range of shocks, which were then linked to the banking sector's asset quality. The impact of changes in interest rates, exchange rates, and earnings on debt-servicing capacity of the corporate sector was considered. The sensitivity of the household sector was analyzed by considering the impact of interest and exchange rate shocks on the household debt burden, and implied feedback effects to banks' asset quality were calculated. An additional analysis was performed on the direct balance sheet sensitivity of the banking sector to credit, interest rate (domestic and foreign), and foreign exchange rate risk. For the insurance sector, a parallel study was conducted to assess its vulnerability to a decline in interest yields, a fall in equity prices, and foreign exchange depreciation.

The Main FSAP Findings and Recommendations

The key FSAP findings can be summarized under three main topics: assessment of observance of international SCs, short-term vulnerability analysis; and medium-term and developmental issues in financial markets.

Observance of International SCs

Assessment of the Basel Core Principles, IAIS, and IOSCO revealed that the FSC/FSS is a competent regulator and has achieved a high degree of compliance with most of the principles assessed. Nonetheless, its powers could usefully be strengthened by providing more legal power to supervisors and increasing their ability to provide authoritative interpretation of regulations. It would be also essential to increase staffing in key areas to ensure that the supervisors remain abreast of developments in rapidly growing segments of the financial markets—off-balance-sheet products (e.g., derivatives), for example—and are ready for new supervisory challenges such as the introduction of Basel II and anti–money laundering.

In banking supervision, the assessors emphasized that full compliance with the Basel Core Principles would necessitate a gradual move away from a compliance-based supervision culture that focuses on quantitative criteria to a supervision culture based on assessment of risk management and governance structures and that places more emphasis on qualitative criteria.

In insurance supervision, the FSC/FSS adopted the consolidated solvency margin rule in October 2002 as part of its efforts to ensure prudential regulation of the domestic insurance industry. Despite these improvements, the assessment indicated that a further increase of capital requirements for life insurance companies may be needed to strengthen the sector's ability to absorb shocks. The stress-testing exercise suggested that the sector remained vulnerable to adversity in the economic environment (see below).

In securities supervision, the assessor recommended, among other things, that regulations designed to manage market volatility be reexamined to assess their effectiveness in light of high market volatility in Korea. In particular, a more frequent calculation and reporting of capital requirements for brokerages was found potentially useful for improved monitoring of the risks to the sector.

In the payments system, the Bank of Korea's (BOK) large-value real-time settlement system, BOK-Wire, was found observant with all CPSIPS principles, but a more explicit statement in legislation of the role of the BOK in the payments system would improve its ability to oversee private sector systems' compliance with the core principles. In addition, further efforts to broaden the use of the of BOK-Wire for large-value payments, especially for over-the-counter trades, was encouraged.

According to the IMF's Code of Good Practices on Transparency in Monetary and Financial Policies, both the FSC/FSS and the BOK were found to have highly transparent regulatory frameworks. However, wider consultation with the public on proposed changes to regulations and better disclosure of the agencies' internal governance procedures were identified as useful improvements. In monetary policy, the BOK had adopted a medium-term inflation target consistent with the transmission lags of monetary policy decisions to the economy. The BOK act required the announcement of an annual target, however; this could potentially lead to public misunderstanding.

The assessment of the OECD Principles of Corporate Governance indicated a solid legal foundation of good governance, but further steps were needed to improve the implementation of better corporate governance practices. These included several measures already being considered by the National Assembly at the time of the assessment; in particular, allowing minority shareholders a greater voice in the selection of directors, including making cumulative voting rights more appealing for large listed companies; facilitating voting by foreign investors; allowing class-action lawsuits by shareholders and investors, and providing better disclosure of related-party transactions and conflicts of interest.

In the areas of combating both money laundering and the financing of terrorism, the assessment underlined the considerable improvements in the legal and operational frameworks accomplished in a limited time, including the membership of Korea's Financial Intelligence Unit at the Egmont Group in 2002 as well as the Financial Intelligence Unit's system for strategic analysis of suspicious transactions. The framework could be further improved by enacting the antiterrorism bill consistent with the International Convention for the Suppression of the Financing of Terrorism; addressing the limitations on access to consumer information to facilitate international corporation; and abolishing the monetary threshold for defining suspicious transactions.

Short-Term Vulnerability Analysis

The assessment of Korea's short-term vulnerabilities made use of the assessments of SCs and the results of the stress-testing exercise to judge the capacity of Korea's institutional, financial, and regulatory systems to withstand foreseeable shocks in the short term.

At the time of the FSAP, the macroeconomic framework reflected a diminished confidence in global recovery; this subdued high-growth expectations in Korea. However, Korea's strong fiscal and external position and low inflation mitigated significant risks for major macroeconomic imbalances. In 2002, Korean banks had largely resolved their NPL hangover from the crisis, had returned to profitability, and were recapitalized. However, the continuing weaknesses in the corporate sector and the unfinished corporate restructuring agenda suggested further asset quality problems, which may not have been thoroughly dealt with yet. The rapid expansion of household credit was also raising concerns about asset quality problems in the future because the risk management practices of most Korean banks for this market segment were in their infancy.

The short-term vulnerability analysis indicated that the exposures in the banking sector were not likely to pose systemic risks that could not be absorbed by the present capitalization levels. This was largely due to the absence of currency and maturity mismatches in the banking sector as a result of the strengthened regu-

lations in these areas following the crisis. However, the exposures to interest rate and earning risk in the corporate sector could potentially worsen banks' asset quality, and small financial institutions could become undercapitalized. Needless to say, these shocks did not materialize, but such a hypothetical exercise revealed areas where further attention may be needed. For the household sector, stress tests indicated that a demand shock would have a minor effect on loan default rates; but a supply shock, requiring an increase in interest rates, was likely to increase default rates by 8 to 9 percent of outstanding household credit. In the life insurance sector, the stress-test exercise revealed a higher risk to a decline in interest rates, a decline in stock valuation, and foreign exchange depreciation at the current capitalization levels.

Besides these quantifiable risks, the FSAP underlined other potential weaknesses in the financial sector, including the weak supervision of fast-increasing derivative transactions in the market, especially by securities firms that were increasingly pressured by declining brokerage income to take leveraged positions. The negative capital ratios of the three largest ITCs also raised concerns for a possible run on their assets in case of a confidence crisis. Although not systemically important, the capital weaknesses of deposit-taking nonbank financial institutions were also a concern because a crisis in the sector could have reputational effects for the remainder of the financial sector.

Medium-Term and Developmental Issues in Financial Markets

The FSAP noted that, in the medium term, challenges for the Korean financial sector were to further deepen the capital markets and ensure that supervisory practices followed market developments closely.

In the banking sector, the reprivatization of the intervened banks was a priority in order to eliminate potential conflicts of interest arising from government's role as a regulator and owner of banks. In addition, the sprawling role of specialized and development banks in a market economy had to be reviewed; the playing field needed to be made level by phasing out any privileges that these banks may have enjoyed.

In the insurance sector, besides the requisite capitalization of the life insurance companies, the sizable presence of agricultural cooperative life insurance and postal life insurance in the market raised concerns of transparency and efficiency because they were not regulated by the FSS/FSC as other insurance companies.

In the corporate sector, continued deleveraging and more forceful implementation of corporate governance practices were recommended in order to minimize risks from further stress.

Further capital market development would necessitate improvements to the market infrastructure. The lack of a deep money market prevented the determination of the short-term riskfree yield curve and also complicated loan pricing and the further development of forward foreign exchange transactions. More regular issuance of short-term treasury bills was recommended to increase the average issue size and liquidity in the market. There was also a clear scope to develop the long end of the government bond market and higher participation of institutional investors to facilitate the development of a liquid corporate bond market. To deepen equity markets, continuing improvements to corporate governance and further improvements to accounting and auditing standards were needed.

Developments since the FSAP and the Remaining Agenda

Since the FSAP, several changes have taken place in the Korean financial sector—some in the areas identified by the FSAP and others in reaction to weaknesses that have since emerged.

The government reduced its ownership in the banking sector with the sale of its stakes in three large banks, leaving its 87 percent stake in Woori Group as its only sizable holding; it also arranged the sale of one large ITC.

In response to concerns raised in the FSAP, the FSS/FSC has established a team for derivatives market supervision and has prepared draft legislation to eliminate netting uncertainty in derivatives contracts.

The rapid expansion in household credit has slowed, mainly owing to strengthened supervisory measures for loan loss provisioning of household loans and on-site examination of banks' credit risk management systems for household lending. However, credit card debt continued to mount, and delinquencies increased at a fast pace. The lack of proper reporting of delinquency ratios temporarily masked the extent of the problem.

In March 2003, an accounting fraud at SK Global triggered a wave of redemptions from ITCs with exposure to SK. It also spilled over to credit card companies, which mostly relied on unsecured commercial paper issues held by ITC money market funds (MMFs). Liquidity regulations at MMFs were to a large extent circumvented by the use of embedded rollover options in unsecured commercial paper. This situation reflected poor oversight, which proved to be a leading cause of the liquidity squeeze.

In response, the FSC/FSS announced a set of new measures designed to enhance the safety and liquidity of MMFs, including provisions to reduce the maximum weighted average maturity of MMF investments; restricting MMF investments to two top rating classes with lower single-issuer limits; excluding automatic revolving financial products, such as option CPs from MMF-eligible instruments; and strengthening risk management and internal control of investment management companies.

The FSC/FSS also took steps to strengthen the prudential supervision of credit card companies. These measures included more stringent computation of delinquency and capital adequacy ratios, and loan-loss provisioning rules. Most important, loans converted from overdue receivables were to be included in the calculation of the effective delinquency ratio. Although, these reactive measures were introduced too late to prevent the collapse of one large credit card company, they filled important regulatory gaps.

There was also some easing of prudential regulations, which may potentially undermine the health of the financial sector. To boost corporate lending, the FSC/FSS adopted measures in mid-2003 that included the temporary easing—until the end of 2004—of capital and asset soundness criteria for financial institutions with the highest CAMEL rating.[10] The FSC/FSS also gave more freedom to insurance companies to risk-weigh corporate loans depending on the creditworthiness of the borrower.

With the introduction of bancassurance[11] in August 2003, further measures were announced that included the elimination of the capital deposit requirement for insurance companies. With this change, the protection of policyholders in the event of insolvency will be preserved by the solvency margins only, which were assessed to be inadequate by the FSAP for the level of risk faced by the life insurance sector.

In corporate governance, new accounting and auditing bills were passed, which will increase the amount of information available to investors; and class-action lawsuits were legalized in cases of securities violation.

In January, 2004, Korea took measures that will restrict trade in *won* nondeliverable forwards, which were seen as an effort to reduce upward pressure on the currency, but they could potentially impede development of markets. Indeed, the controversial regulation was later revised, and by April it was effectively reversed. Nonetheless, this step introduced an element of regulatory uncertainty, a reputation that Korea should avoid if its ambition of creating a regional financial hub is to be taken seriously.

In a macroeconomic framework where both fiscal and monetary policy tools are available to achieve economic goals, subjecting the regulatory framework—albeit temporarily—to cyclical economic concerns raises worries about the independence of the supervisors and increases regulatory uncertainty. In addition, the responses of regulators to problems in the credit card companies and the ITCs reflect the continuation of a reactive supervisory policy tradition, not a proactive approach.

10. CAMEL: capital adequacy, asset quality, management, earnings, liquidity.

11. Permitting banks to offer insurance products and services.

In the period ahead, there remains room to improve the supervisory vigilance—move to a more proactive oversight and distance supervisory policies from short-term considerations—of the financial and corporate sectors. It is also essential to continue with the remaining corporate restructuring agenda, including the passage of the insolvency law that is still under consideration in the National Assembly.

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