REPUBLIC OF KOREA: REPORT ON
THE OBSERVANCE OF STANDARDS
AND CODES

REPUBLIC OF KOREA

REPORT ON THE OBSERVANCE OF STANDARDS AND CODES

May 2014

This Report on the Observance of Standards and Codes on the Republic of Korea was prepared by a staff team of the International Monetary Fund as background documentation for the periodic consultation with the member country. It is based on the information available at the time it was completed on December 24, 2013.

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FINANCIAL SECTOR ASSESSMENT PROGRAM UPDATE

December 24, 2013

REPORTS ON THE OBSERVANCE OF STANDARDS AND CODES

Prepared By
**Monetary and Capital
Markets Department, IMF
and Finance and Private
Sector Development Vice
Presidency, World Bank**

These reports are background documents to the Financial System Stability Assessment report, and were prepared in the context of the work of the Financial Sector Assessment Program (FSAP) mission that visited the Republic of Korea in April, and July 2013. The FSAP findings were discussed with the authorities during the Article IV Consultation mission in October 2013.

CONTENTS

GLOSSARY	4
BASEL CORE PRINCIPLES FOR EFFECTIVE BANKING SUPERVISION	6
A. Introduction	6
B. Financial Services Commission and Financial Supervisory Services Approach to Supervision	7
C. Assessment Challenges	7
D. Preconditions for Effective Supervision	8
E. Main Findings	8
F. Authorities' Response to the Assessment	17
CPSS-IOSCO PRINCIPLES FOR FINANCIAL MARKET INFRASTRUCTURES	25
A. Introduction	25
B. Information and Methodology Used for Assessment	25
C. Main Findings	26
D. Recommended Actions Regarding the BOK Wire+	39
E. Recommended Actions Regarding KRX-CCP	40
F. Recommended Actions Regarding Authorities	42
G. Authorities' Response to the Assessment	42
IOSCO OBJECTIVES AND PRINCIPLES OF SECURITIES REGULATIONS	45
A. Introduction	45
B. Institutional and Market Structure—Overview	47
C. Preconditions for Effective Securities Regulation	53
D. Main Findings	53
E. Authorities' Response to the Assessment	65
ASSESSMENT OF INSURANCE CORE PRINCIPLES	67
A. Introduction	67
B. Authorities' Response to the Assessment	72
FIGURE	
1. Korea Exchange Composite Index Values	51

TABLES

1. Summary Compliance with Basel Core Principles—Observance of Standards and Codes _____	11
2. Recommended Action Plan to Improve Compliance with the Basel Core Principles _____	15
3. BOK-WIRE+ Summary Compliance with CPSS-IOSCO Principles for FMIs—ROSC _____	28
4. KRX-CCP Summary Compliance with the CPSS-IOSCO Principles for FMIs—ROSC _____	32
5. Authorities' Summary Compliance with the CPSS-IOSCO Responsibilities—ROSC _____	37
6. Recommended Actions to Improve Compliance with the CPSS-IOSCO Principles and the Safety and Efficiency of the FMI Infrastructure: BOK Wire+ _____	39
7. Recommended Actions to Improve Compliance with the CPSS-IOSCO Principles and the Safety and Efficiency of the FMI Infrastructure: KRX-CCP _____	40
8. Recommended Actions to Improve Compliance with the CPSS-IOSCO Responsibilities and the Safety and Efficiency of the FMI _____	42
9. Governance Arrangements of the Korean Authorities _____	49
10. Korea Exchange Equity and Bond Business _____	51
11. Financial Investment Business _____	52
12. Assets Under Management in Domestic Collective Investment schemes _____	53
13. Summary Implementation of the IOSCO Principles— Detailed Assessments _____	56
14. Recommended Action Plan to Improve Implementation of the IOSCO Principles _____	63
15. Summary of Observance with the Insurance Core Principles _____	69
16. Recommendations to Improve Observance of Insurance Core Principles _____	71

Glossary

AC	Additional Criteria
AEFSC	Act on the Establishment of the Financial Services Commission
AMC	Asset Management Company (formerly Investment Trust Companies)
APA	Administrative Procedure Act
ASIFI	Act on the Structural Improvement of the Financial Industry
ATS	Alternative Trading System
AUM	Assets Under Management
BCP	Basel Core Principles
BCoP	Business Continuity Plan
BOK	Bank of Korea
BOK Act	Bank of Korea Act
CAR	Capital Adequacy Ratio
CCP	Central Counterparty
CEO	Chief executive officer
CIS	Continuous Linked Settlement
CME	Chicago Mercantile Exchange
CNS	Continuous Net Settlement
CP	Core principle
CPA Act	Act on Certified Public Accountants
CPSS	Committee on Payment and Settlement System
CRA	Credit Rating Agency
CRO	Chief risk officer
DM	KRX Derivatives Market
DTI	Debt-to-Income
DVP	Delivery versus Payment
EC	Essential Criteria
FHC	Financial Holding Companies
FMI	Financial Market Infrastructure
FSAP	Financial Sector Assessment Program
FSC	Financial Services Commission
FSC Act	Act on the Establishment, etc., of Financial Services Commission
FSCMA	Financial Investment Services and Capital Markets Act
FSS	Financial Supervisory Service
FTC	Fair Trade Commission
GDP	Gross Domestic Product
GFC	Global Financial Crisis
IAASB	International Auditing and Assurance Standards Board
ICAAP	Implementation of the Internal Capital Adequacy Assessment Process
IFRS	International Financial Reporting Standards
IMF	International Monetary Fund
IOSCO	International Organization of Securities Commissions

ISA	International Standard on Auditing
ISQC	International Standard on Quality Control
KAASB	Korea Auditing and Assurance Standards Board
KAI	Korea Accounting Institute
KASB	Korea Accounting Standards Board
KCIF	Korea Center for International Finance
KDIC	Korea Deposit Insurance Corporation
KFTC	Korea Financial Telecommunications and Clearings Institute
KICPA	Korean Institute of Certified Public Accountants
K-IFRS	Korean International Financial Reporting Standards
KOFIA	Korea Financial Investment Association
KONEX	Korea New Exchange
KOSDAQ	Korean Securities Dealers Automated Quotations
KOSPI	Korea Composite Stock Price Index
KRW	Korean won
KRX	Korea Exchange
KSA	Korean Standard on Auditing
KSD	Korea Securities Depository
LCR	Liquidity Coverage Ratio
LTV	Loan-to-Value
MMoU	Multilateral Memorandum of Understanding
MPC	Monetary Policy Committee
MTF	Multilateral Trading Facility
NIM	Net Interest Margin
NPL	Non-performing Loans
OTC	Over-the-Counter
PFMI	CPSS-IOSCO Principles for Financial Market Infrastructures
RAAS	Risk Assessment Application System
ROA	Return on Assets
ROMPSS	Regulation on Operation and Management Payment and Settlement Systems
ROSC	Report on the Observance of Standards and Codes
RRC	Regulatory Reform Committee
RTO	Recovery Time Objective
SFC	Securities and Futures Commission
SRO	Self regulatory organization
TB	Trading Book
TR	Trade repository
WROMPSS	Working Regulation on Operation and Management of Payment and Settlement

BASEL CORE PRINCIPLES FOR EFFECTIVE BANKING SUPERVISION

A. Introduction

1. This assessment of the current state of the implementation of the Basel Core Principles for Effective Banking Supervision (BCP) in the Republic of Korea has been completed by Mr. Christopher Wilson, Financial Supervision and Regulation Division, Monetary and Capital Markets Department (IMF) and Valeria Salomao Garcia (World Bank) as part of the work of the Financial Sector Assessment Program (FSAP) mission that visited the Republic of Korea in April, and July 2013.

2. Korea's financial sector is large and diversified. The total assets of banks and nonbank financial institutions amounted to 310 percent of GDP at end-2012. Since the mid-1990s, the financial system has become increasingly diversified, though still bank-dominated. The Korean financial system is dominated by twelve Financial Holding Companies (FHCs) that constitute about 50 percent of financial sector assets. The FHCs have steadily increased their market share in total financial sector assets from about 39 percent at end-2010. The FHCs have 87 percent of their consolidated assets in banking (accounting for about 70 percent of the banking sector assets). Of the 18 commercial and specialized banks in Korea, 14 are operating under 10 bank holding companies, which have a total of 275 subsidiaries. The financial companies under the bank holding companies operate across a broad cross-section of the financial sector.

3. The vulnerability of the Korean financial system has diminished considerably since the 2008 crisis on policy commitments to support banks' solvency and liquidity. Banks' capital adequacy is sound, and the Capital Adequacy Ratio (CAR) of the banking system at end-2012 stood at 14.3 percent, up from 12.3 percent at end-2008. All banks meet the Basel III capital requirements on an individual basis, with CARs remaining at about or above 10 percent for all years and scenarios. Banks have been retaining a larger proportion of their profits on supervisory guidance to limit dividend payouts. Liquidity profiles have improved markedly, reflecting lower foreign exchange (FX) liquidity mismatches and less reliance on wholesale funding, following the adoption of a number of macroprudential measures.

4. However, banks' profitability has been subject to downward pressures and Korean financial institutions are also highly exposed to the household sector. Since the onset of the crisis, the profitability of the banking sector has been impacted negatively by the low interest rate environment (compressing the net interest margins, (NIMs)), a marginal increase in credit risk due to deteriorating macroeconomic conditions, and the conservative regulatory provisioning standards (up to about 150 percent of expected losses). The return on assets (ROA) of the commercial banks in 2012 was about 0.5 percent, suggesting low profitability relative to other countries. Household leverage in Korea is high by international standards, with household debt accounting for 136 percent of disposable income at end-2012. To mitigate this risk, banks are required to maintain

low loan-to-value (LTV) and apply conservative debt-to-income (DTI) ratios for new loan origination. The average LTV ratio across banks currently stands at 49 percent, pointing to a large buffer against potential losses in case of deterioration in house prices.

B. Financial Services Commission and Financial Supervisory Services Approach to Supervision

5. The institutional setting in the Republic of Korea regarding banking supervision is based on an integrated supervisory approach through the Financial Services Commission (FSC) and the Financial Supervisory Service (FSS). The FSC is in charge of financial policies and supervision of financial industries, while the FSS regulates financial markets and institutions under the direction and supervision of the FSC.

6. The Republic of Korea has a moderate level of compliance with the BCP. Building upon the 2003 Financial Sector Assessment Program (FSAP) recommendations, the authorities have taken resolute steps to strengthen the regulation and supervision of the banking sector. Although the Republic of Korea counts with a strong—albeit overly complex—regulatory framework and with thorough supervisory practices, a number of areas require attention so that the Republic of Korea can meet the highest standards of supervisory effectiveness. Full implementation of Basel II to Financial Holding Companies (FHCs) will complement the transition to group supervision which began through the introduction of the FHC Act.

7. The FSS adopts a two tiered approach to bank supervision with a focus on individual banks through a relationship manager model and centralized teams of subject matter experts responsible for industry analysis. The FSS maintains an integrated system of data collection that forms the basis of off-site surveillance. On-site examinations complement off-sight supervision by providing insight into risk management as a forward looking tool. A dedicated team of specialists perform on-site examinations across the banking sector. A full scope examination is normally performed every two years, encompassing a thorough evaluation of the entire spectrum of risk management and compliance programs.

C. Assessment Challenges

8. This assessment of the current state of the implementation of the BCP reflects the regulatory and supervisory framework in place as of the date of the completion of the assessment. An assessment of the effectiveness of banking supervision requires a review of the legal framework, both generally and as specifically related to the financial sector, and detailed examination of the policies and practices of the institutions responsible for banking regulation and supervision. In line with the BCP methodology, the assessment focused on the major banks and banking groups, and their regulation and supervision, given their importance to the system.

D. Preconditions for Effective Supervision

9. **The preconditions for effective supervision (a stable macroeconomic environment, sound legal and accounting framework, and effectiveness of procedures for the efficient resolution of problems in the securities market) appear to be in place in Republic of South Korea.**

E. Main Findings

Objectives independence, powers, transparency, and cooperation (CP 1)

10. **Responsibilities, objectives and powers related to banking supervision are clearly defined in the Republic of Korea.** The legal framework currently in place reasonably provide the necessary powers to authorize the establishment of banks, conduct ongoing supervision, address compliance with laws and regulations, as well as undertake corrective actions to address safety and soundness concerns. Limitations include the fact that the FSC-FSS does not have the power to increase the prudential requirements for individual banks and banking groups based on their risk profile and systemic importance. Nevertheless, conflicting objectives and responsibilities might concur with the objectives related to safety and soundness of the banking system. Responsibilities related particularly to fair financial transactions and consumer protection and the way they are being implemented through FSS can result in conflicts between “developmental” and safety and soundness objectives. In addition, the objectives of the FSC-FSS are apparently, to a certain extent, tilted to the promotion of the financial industry.

Licensing and structure (CPs 2–5)

11. **Authorization processes are generally thorough but there is room to require formal approval for certain activities.** Major acquisitions and transfer of ownership rely on a process of notification as opposed to an explicit approval by the supervisor. The requirement to obtain an approval involves a higher standard of due diligence and enables the supervisory authorities to take action early in the process if deemed necessary.

Transfer of ownership and major acquisitions (CPs 6–7)

12. **The FSC has the power to review, reject and impose prudential conditions on proposals to transfer significant ownership or controlling interests held directly or indirectly to other parties.** In practice though, transfer of significant ownership or controlling interest do not require approval in several cases. In addition, the definition of large shareholder provided by the Banking Act is too narrow, as it does not contemplate the possibility of shareholdings below 4 percent resulting in “de facto” control or controlling interest, although in practice all commercial banks are subsidiaries of FHCs.

13. **Major acquisitions of non-financial companies are restricted in the Republic of Korea.** Overall the authorities rely on reporting for dealing with and monitoring acquisitions of financial companies (as well as the establishment of overseas operations).

Supervisory tools and reporting (CPs 8–9)

14. Although banking supervision has been enhanced over the years, further emphasis towards a more risk-sensitive approach would be beneficial. The FSC-FSS operates with a detailed off-site supervisory process, supported by a broad range of data that is collected on a periodical basis. The on-site examination process would benefit from more flexible and frequent examinations, tailored to ensure strong surveillance of the most relevant risks. Enhancements to the judgmental component of the assessments and the appointment of a point of contact in charge of all aspects related to a particular bank/banking group is key in achieving a comprehensive view of risk.

Consolidated Supervision and Home Host (CPs 12–13)

15. The FSC-FSS have taken the first step in developing a framework for Group supervision of the large complex financial institutions by enacting the FHC Act. Nonetheless, further effort is needed to achieve an effective approach to group supervision. The FSC-FSS is yet to consistently apply minimum requirements for capital, liquidity and risk management on a group-wide basis. Effective supervision of Group structures should be seen as a priority to achieve a consolidated view of risk that takes into account linkages in organizational structure and inter-group transactions.

Corporate governance and risk management (CPs 14–15)

16. Risk management and corporate governance. Supervision practices should be developed further to be more intrusive in assessing corporate governance particularly in assessing the Board's oversight of risk management. Currently, there is a strong focus on analysis of quantitative indicators as part of off-site supervision which should be complemented by analysis of a broader range of risk management factors.

Capital adequacy (CP 16)

17. Implementation of the Internal Capital Adequacy Assessment Process (ICAAP) will be an important stepping stone in achieving an integrated approach to capital planning and higher standards of risk management. When fully implemented, the ICAAP process will provide a framework for a comprehensive assessment of risk and capital and will facilitate the transition to the full implementation of Pillar 2 of Basel II to assign individual bank capital ratios. There is a healthy buffer above CARs for the banking sector 13.8 percent. The FSC-FSS plans to implement Basel III in December 2013.

18. Extension of Basel II to Financial Holding Companies (FHCs) will improve the consistency and comparability of the capital base for Korean banks. Basel II applies to the commercial banks while FHCs are subject to Basel I which does not meet international standards. The FSC-FSS plans to apply Basel II and Basel III to FHCs by December 2013.

Provisioning (CP18)

19. Prudential regulations covering loan loss provisioning have been strengthened. In transitioning to International Financial Reporting Standards (IFRS), a reserve for Credit Loss was introduced to prevent a decrease of banks' loss absorbent capacity. While the non-performing ratios for the domestic banks remain low by international standards. There are areas to improve provisioning practices, especially where loans return from default to performing status which should be tightly controlled. Since the Global Financial Crisis (GFC), government sponsored Asset Management Companies (AMCs) have been introduced to acquire nonperforming loans (NPLs) in several sectors of the economy (see above).

Credit risk (CP 17)

20. Credit risk is the most relevant risk in the banking system in South Korea. Current macroeconomic conditions are challenging in this part of the credit cycle with an upward trend in unemployment and past due loans, albeit off a low base. As a result, compliance with this Principle is critical. The FSC-FSS appears aware of the vulnerabilities in credit portfolios of individual banks and monitors data carefully on a quarterly basis. Owing to the importance of effective credit risk management, the team believes greater attention to this area is warranted.

Market risk and liquidity (CPs 22–24)

21. Regulations for market risk permit banks to exclude TB exposures from the calculation of market risk regulatory capital are under two conditions: (i) where the ratio of the TB is to total assets on the consolidated balance sheet is less than 5 percent maximum per day; and (ii) a bank where the TB is less than W 100 billion maximum per day. De-minimis exclusions from market risk are not unknown, however, the current thresholds are considered excessive. Given the exclusions allowed in the regulations, supervisory processes should be strengthened to monitor and assess traded market risk where exemptions are applied.

22. Banks operate with strong liquidity ratios, especially foreign currency liquidity requirements which are more conservative in their calibration than domestic liquidity ratios. Banks need to comply with a one-to-one loan to deposit ratio restricting leverage and while foreign currency denominated asset-liability regulatory requirements are tightly managed, there is scope to enhance liquidity risk management of won denominated asset-liability. Transition to the Basel III Liquidity Coverage Ratio (LCR) framework will provide a useful step in this regard and banks are currently required to report LCR ratios on a quarterly basis.

Internal control and external audit (CPs 26–27)

23. The regulations do not permit the FSC-FSS the power to establish the scope of external audits and in practice the scope of on-site and off-site supervision does not incorporate results from external audit. If the supervisor considers a specific risk type of line of business to be higher risk, there is no provision within the regulations to commission the External Auditor to look at

this issue as part of the external audit. The Act of External Audit for Stock Companies does not apply to all depository institutions leaving the minimum standards for non-banks materiality short of banks. The FSC-FSS does not have the power to reject and rescind the appointment of an external auditor, who is deemed to have inadequate expertise or independence, or is not subject to or does not adhere to established professional standards. Removal of external auditors is left to the audit profession.

Table 1. Summary Compliance with Basel Core Principles—Observance of Standards and Codes	
Core Principle	Comments
Responsibilities, objectives, and powers.	Responsibilities, objectives and powers related to banking supervision are clearly defined although conflicting objectives and responsibilities might not concur with the objectives related to safety and soundness of the banking system. Responsibilities related particularly to fair financial transactions and consumer protection and the way they are being implemented through FSS can results in conflicts between “developmental” and safety and soundness objectives.
Independence, accountability, resourcing, and legal protection for supervisors.	The legal status of the FSC within the Government structure as a Ministerial agency can potentially grants the FSC additional means to exercise its independence in comparison to structures were the supervisory agency is within the authority of the MoF. On the other hand, the direct subordination to the Prime Minister can also potentially threat its independence. In principle there are some checks and balances processes in place including the FSC and the FSS internal audit, the BAI as well as the investigations conducted by the Assembly, in particular the role of the Assembly in inspecting the FSC-FSS activities.
Cooperation and collaboration.	Information exchange with foreign supervisory authorities usually take places under Memorandum of Understandings (MoUs) that limit the use of information to supervision purposes only, and requires prior consent before passing it on to a third party. In addition, the FSC-FSS exchanges bank supervisory information with foreign supervisors by participating in supervisory colleges held by the home supervisors; it also invites host supervisors from abroad to attend its own supervisory colleges. The FSC is the resolution authorities in the Republic of Korea.
Permissible activities.	Permissible activities of institutions that are licensed and subject to supervision as banks are defined under the Banking Act. Banks are allowed to operate banking business, services incidental to banking business, and services concurrent to banking business.
Licensing criteria.	The FSC has the power to set licensing criteria and reject applications The FSC has the power to set licensing criteria and reject applications that do not meet such criteria. The FSC hasn’t licensed a bank in twenty years but does have a structured process in place encompassing guidance for new applicants.
Transfer of significant ownership.	The FSC has the power to review, reject and impose prudential conditions on proposals to transfer significant ownership or controlling interests held directly or indirectly to other parties. In practice though, transfer of significant ownership or controlling interest do not require approval in several cases.

Table 1. Summary Compliance with Basel Core Principles—Observance of Standards and Codes	
Core Principle	Comments
Major acquisitions.	Major acquisitions of non-financial companies are restricted in the Republic of Korea. Overall the authorities rely on reporting for dealing with and monitoring acquisitions of financial companies (as well as the establishment of overseas operations).
Supervisory approach.	The supervisory approach in place relies heavily on off-site monitoring and notifications of exceptions, as well as on a biannually full-scope on-site examination, with a robust and strong compliance foundation.
Supervisory techniques and tools.	The FSC uses a broad range of techniques and tools to implement its supervisory approach. It counts with comprehensive and detailed set of data requested, encompassing financials and management information, as well as its systems and dedicated staff, result in a robust off-site framework. On-site examinations are supported by check lists and guidance to ensure consistency in the supervisory process. Deployment of resources is based on the type of bank and total assets, which to a certain extent reflects banks' risk profile.
Supervisory reporting.	The FSC-FSS have powers to require banks to submit information on both a solo and a consolidated basis. In practice, the FSC-FSS maintains an integrated financial information analysis system to collect and manage data from the banks both on a monthly and a quarterly basis. The data collected ranges from banking operations to financials, to information related to regulatory compliance.
Corrective and sanctioning powers of supervisors.	The FSC-FSS has a range of powers, measures and tools available to address threats to banks and the banking system. The process of providing recommendations to banks based on on-site examinations, albeit recently improved, is still lengthy, which weakens its effectiveness. In addition, there are no provisions allowing the FSC to impose more stringent prudential limits and requirements, barring individuals from the banking sector, replacing or restricting the powers of Board members or controlling owners.
Consolidated supervision.	<p>The FSC-FSS has put significant effort over the last few years towards implementing consolidated supervision. The issuance of the FHC Act, as well as the implementation of the RFI for FHCs, has been key steps in that direction. Several of Republic of Korea's large banks are conglomerates with a wide variety of entities within the banking group and banks part of wider non-bank groups. Given such background, the framework in place does not fully allow for an in depth understanding and forward looking analysis needed. Group-wide supervision is based on monitoring of consolidated financials and on assessments regarding its internal controls for managing the various businesses.</p> <p>Group monitoring is conducted through a dedicated team focuses mostly on the banking side, particularly through stand-alone supervision, given its relevance within the activities of the FHCs. The overall monitoring is based on consolidated financials and assessment of the FHC regarding its internal controls for managing the various businesses.</p>

Table 1. Summary Compliance with Basel Core Principles—Observance of Standards and Codes	
Core Principle	Comments
Home-host relationships.	<p>The FSC-FSS has put in place procedures to share information and cooperate for supervisory purposes although mechanisms for effective handling of crisis situations from a cross-border perspective, as well as group resolution plans are yet to be established.</p> <p>The FSC-FSS set up a task force that has been working on standards and rule changes for D-SIB and is looking to complete the task in the near future.</p>
Corporate governance.	Regulations are generally sound, although lack specificity in some aspects to fully satisfy the criteria, with scope for supervisory practices to be strengthened with specific minimum requirements for corporate governance. Greater intensity of supervision and inspection of corporate governance could be applied across the entire deposit taking sector which includes non-banks where the regulations and oversight by boards are generally less developed.
Risk management process.	Where a bank is a member of a group of companies, the risk management framework should cover the risk exposure across and within the “banking group” and should also take account of risks posed to the bank or members of the banking group through other entities in the wider group. The complexity of FHCs places greater reliance on supervisors to be aware of group-wide risks, especially where there is a diverse cross section of business lines.
Capital adequacy.	Basel II has not been fully implemented to include FHCs which are internationally active and calculate regulatory capital according to Basel I. Pillar 2 of BII has not been fully implemented across the population of domestic banks (including - internationally active banks) and the minimum capital requirement for all banks is 8 percent, with no capacity within the regulations to assign individual capital ratios to account for a higher risk profile.
Credit risk.	Credit risk is the most relevant risk in the banking system in South Korea. Current macroeconomic conditions are challenging in this part of the credit cycle with an upward trend in unemployment and past due loans, albeit off a low base and potentially vulnerable credits could exist in performing credit portfolios. As a result, compliance with this Principle is critical. The FSC-FSS appears aware of the vulnerabilities that current developments on credit risk entail for the financial system, and monitors data carefully on a quarterly basis.
Problem assets, provisions, and reserves.	The regulations permit the reclassification of loans to performing without the borrower having proved repayment capacity under revised terms. While the FSC-FSS has increased its oversight of banks’ application of internal politics for reclassification of assets, a greater amount of supervisory attention is required to ensure banks’ apply appropriate risk management around this process. Attention to this aspect of provisioning should be enhanced, especially in the current credit cycle.

Table 1. Summary Compliance with Basel Core Principles—Observance of Standards and Codes	
Core Principle	Comments
Concentration risk and large exposure limits.	South Korea, as most countries, has not yet established guidance covering the whole spectrum of concentration risk management and monitoring. It is acknowledged that at the time of this assessment, the revised guidance by the BCBS on concentration risk has not yet been published. The CP goes beyond large exposures and into management of concentration risk which requires more of a portfolio approach.
Transactions with related parties.	Related party regulations for transactions with related parties permit exclusions under certain thresholds. As a result, the definition might not be comprehensive to capture a sufficiently broad number of related party transactions. The current definition of related party transactions is geared towards credit exposures which are reflected in the reporting obligations of banks and the off-site analysis performed by supervisors.
Country and transfer risks.	The regulations are general in nature without an explicit requirement for transfer risk which inhibits the effectiveness of oversight of this risk by supervisors. Intra-group transactions not specified in the regulations. The reporting by banks does not sufficiently aggregate across different asset classes, exposures and types of risk to provide an accurate and timely presentation of country and transfer risk.
Market risk.	Regulations for market risk permit banks to exclude Trading Book (TB) exposures from the calculating of market risk regulatory capital under two conditions: (i) where the ratio of the TB to total assets on the consolidated balance sheet is less than 5 percent maximum per day; and (ii) A bank where the TB is less than W 100 billion maximum per day. De-minimis exclusions from market risk are not unknown, however, the current thresholds are considered excessive.
Interest rate risk in the banking book.	The regulations require quarterly measurement and in the case of large change in risk, more frequent. In practice, banks calculate and measure IRR on a monthly basis.
Liquidity risk.	Banks have sound liquidity ratios measures against prudential ratios for domestic and foreign currency. There is room to enhance the level of consistency of inputs into the stress testing process. As a result, the basis for stress tests will differ across institutions through bank discretion of inputs and parameters and the identification of outliers and peer comparison is not easily performed.
Operational risk.	Inputs into off-site analysis of operational risk could be improved with more granular detail, mainly nature of internal loss data. Peer group benchmarking of loss data would enrich the benefits of this analysis. The analysis of operational risk loss data could be enhanced.
Internal control and audit.	The regulations pertaining to internal control and audit are generally comprehensive. There is a strong focus on internal controls within the Regulations which is reflected in the extent of off-site analysis and data submitted by the bank to the FSC-FSS. The on-site examination also has a strong focus on the effectiveness of Internal Audit.

Table 1. Summary Compliance with Basel Core Principles—Observance of Standards and Codes	
Core Principle	Comments
Financial reporting and external audit.	The regulations do not permit the FSC-FSS the power to establish the scope of external audits and in practice the scope of on-site and off-site supervision does not incorporate results from external audit. The FSC-FSS does not have the power to reject and rescind the appointment of an external auditor, who is deemed to have inadequate expertise or independence, or is not subject to or does not adhere to established professional standards. There has been no incidence where the FSC-FSS has taken action in this regard to dismiss an auditor.
Disclosure and transparency.	There is room for the publicly available financial data to be used in the supervisory process. The FSS reviews the public data but the supervisory framework is not complete or comprehensive as to how to use this data and integrate into the SREP and CAMEL-R approach by performing analysis and comparison against prudential data.
Abuse of financial services.	At present attention has been focused on the domestic banks of which practices for AML/CFT are improving but additional measures are required to address remaining deficiencies. The FIU will transition its focus to strengthening practices in securities and insurance sectors and finally smaller non-banks where risk profile is comparatively higher but asset size is lower. Scope to expand oversight across the entire population of deposit taking institutions.

Table 2. Recommended Action Plan to Improve Compliance with the Basel Core Principles	
Reference Principle	Recommended Action
2. Independence, accountability, resourcing and legal protection for supervisors.	<p>Review the current composition/functioning of the Commission in order to shield the Commission against conflicts of interest;</p> <p>Revise the legal protection framework in order to ensure that supervisors cannot be sued directly by market participants in cases of actions or omissions made in good faith; and</p> <p>Review the current structure, staffing and distribution of activities within the FSS in order to allocate the appropriate volume of resources to safety and soundness and risk profile of activities.</p>
5. Licensing criteria	<p>Amend the banking and respective enforcement decree and regulation to ensure that suitability of shareholders encompass the ultimate beneficial owners;</p> <p>Amend the legal/regulatory framework to expressly require a no-objection from the home supervisor in case of establishment of subsidiaries of foreign banks in the Republic of Korea; and</p> <p>Amend the RSBB to explicitly include assessments regarding the detection and prevention of criminal activities and oversight of outsourced functions.</p>
9. Supervisory techniques and tools.	Amend the legal framework in order to be able to have access to all relevant data and information from non-financial entities within a bank or banking group.

**Table 2. Recommended Action Plan to Improve Compliance
with the Basel Core Principles**

Reference Principle	Recommended Action
12. Consolidated supervision	Develop a framework in order to systematically assess the risks of the non-financial business within the group.
16. Capital adequacy	Fully implement ICAAP assessments across all deposit taking institutions; Implement Pillar 2 of BII for all banks where an individual capital ratio is applied to banks based on an assessment of their individual risk profile; and Amend Regulations for banks to obtain prior approval from FSC-FSS for capital reductions.
17. Credit risk	Increase the frequency of onsite credit risk reviews.; and Issue guidance requiring that credit transactions be made on market terms and that large and/or high risk operation is to be approved by the Board.
18. Problem assets, provisions, and reserves	Require that collateral be valued at net realizable value which includes appropriate haircuts which take account of realization costs; and Require that a valuation of collateral be performed at the time an asset is categorized as defaulted-non-performing, preferably by an independent third party.
19. Concentration risk and large exposure limits	Issue guidance/regulation covering the whole spectrum of concentration risk management and monitoring required by the revised CP; Review current exceptions to large exposures regime that may undermine prudential considerations; and Review limits as to apply consistently on both solo and consolidated.
20. Transactions with related parties	Amend regulation to require that related party transactions should be approved by the board; and Amend regulation to require that related party transactions do not occur in more favorable terms than those to non-related party clients.
21. Country and transfer risks	Issue guidance on country and transfer risk that can be understood and applied by all banks. In particular, banks need to be made aware that an overall deterioration of credit risk in a country can lead to many private contracts not being observed, even when not linked to any specific restrictions imposed by governments.
24. Liquidity	Amend regulations to require continuous compliance with liquidity ratios; Develop greater specificity for liquidity stress testing (severity, input assumptions, parameters etc) to enable consistency across industry; and Amend Regulations to contain a more explicit definition of high quality liquid assets.
26. Internal control and audit	Strengthen the oversight of IA as part of the partial examination; and Ensure the examination team meets with the full AC, currently an FSS Deputy Governor which is not part of the examination team meets with the Chair.
29. AML/CFT	Implement a risk-based methodology for supervising banks which discriminates risk profile and allocates recommendations for frequency and intensity of supervision. Extend the risk-based approach to supervision across deposit taking institutions.

F. Authorities' Response to the Assessment

24. The Financial Services Commission and the Financial Supervisory Service of Korea (FSC/FSS) would first like to thank the IMF, the World Bank, and the FSAP mission team for their assessment work. The FSC/FSS fully expects to utilize the assessment outcome as an opportunity to further improve and strengthen Korea's banking regulation and supervision. In fact, the FSC/FSS has already started on some of the mission team's recommendations and plans to work on the remaining recommendations under an appropriate timetable. The FSC/FSS also reiterates the admonition the mission team has made in its report that this assessment is not appropriate for comparison with either previous assessments or other countries' assessments.

25. From the outset, the FSC/FSS welcomed the BCP assessment as an opportunity to take a fresh look at the effectiveness of Korea's banking regulation and supervision regimes and identify areas in need of improvement. It was for this reason that the FSC/FSS agreed to BCP assessment on the basis of both the Essential Criteria (EC) and the Additional Criteria (AC) under the revised core principles (CPs) even though the new criteria would subject Korea's banking regime to far greater scrutiny than in the past.

26. The FSC/FSS disagrees with many of the CP ratings in the final assessment report with the judgment that the ratings do not adequately reflect the overall strength or effectiveness of Korea's banking regulation and supervision. One case in point is the well-established practice of bank supervisors issuing supervisory guidance—such as guidelines on integrated risk management, stress test, and performance-based pay—that the banks promptly incorporate into their internal policy and carry out for full compliance. Supervisory guidance has long proven an effective and expeditious means of banking supervision in Korea, but the mission team's assessment appears to suggest that supervisory guidance is not sufficient simply because it is an aberration from written rules and regulations. The FSC/FSS therefore provides additional arguments for the following CPs in order to bring greater balance to the mission team's assessment.

Independence, accountability, resourcing and legal protection for supervisors (CP2)

27. The FSC/FSS does not agree with the assessment of Principle 2 (Independence, Accountability, Resourcing and Legal Protection for Supervisors) for the following reasons. The mission team recommends that the FSC/FSS reconsider the representation of the Ministry of Strategy and Finance (finance ministry) and the Korea Chamber of Commerce and Industry in the composition of the FSC commissioners because of the potential for conflict of interest. Article 11 of the Act on the Establishment of the Financial Services Commission, however, directly addresses this matter by expressly providing for the recusal of FSC commissioners (voluntarily or involuntarily) from any proceedings, deliberations, and resolutions that may pose a conflict of interest.

28. Another recommendation in respect of independence and accountability is to change law in order to give regulators and supervisors immunity from litigation for actions taken in the performance of their duties. While this is a laudable proposition, the overwhelming constraint for this matter is that Korea's constitution does not provide for any selective immunity for the

FSC/FSS. More importantly, FSC/FSS regulators and supervisors are liable for damage under the State Compensation Act only in the event of a violation of law resulting from an intentional wrongdoing or negligence. Therefore, for all practical purposes, there is virtually no chance of individual regulator or supervisor being held liable for good-faith actions taken in the course of performing their official duties. In short, Korea's regulators and supervisors already perform their duties with virtual immunity from litigations that can threaten their independence or accountability.

Licensing criteria (CP5)

29. It is recommended that the criteria for a banking license include the consent of the home supervisor, internal controls related to the detection and prevention of criminal activities, and the oversight of proposed outsourced functions. The FSC/FSS notes that the laws and regulations currently in effect already enable bank supervisors to closely examine and assess the above-mentioned criteria items when reviewing banking license applications.

Transfer of significant ownership (CP6)

30. The assessment report suggests that a shareholder with less than 10 percent of share ownership should be required to seek approval for the transfer of significant ownership or controlling interest and that a shareholder with less than 4 percent should be classified as a large shareholder if the shareholder exercises "de facto" control of a bank. The FSC/FSS closely monitors shareholder status and ownership structure through the banks' shareholder reports and onsite examinations. The FSC/FSS also monitors shareholders who exercise "de facto" control on an ongoing basis.

Major acquisitions (CP7)

31. It has been suggested that prior approval should be required for a major subsidiary acquisition and that provisions specifically designed to prevent exposure to undue risk from a new acquisition or investment should be included in the banking regulation. The FSC/FSS already requires a bank to obtain approval when it seeks to hold more than 20 percent of a company or take over a subsidiary that the bank effectively controls. In addition, bank supervisors continuously monitor whether a new acquisition or investment hinders the safety and soundness of the bank.

Supervisory approach (CP 8)

32. The mission team makes the observation that the existence of multiple points of responsibility among various teams at the FSS that take charge of particular sub-segments of banking supervision and operate autonomously tends to limit the ability of the FSS to fully grasp the overall risk profile of individual banks and banking groups. The reality, however, is that the Off-Site Surveillance Team at the Bank Examination Department effectively coordinates such information and functions as the central repository of information and the central point of contact for individual banks and financial holding companies.

33. The assessment report also points to the seeming over-reliance of the FSC/FSS on comprehensive biennial full-scope examination and recommends expanded risk-based partial examinations and qualitative assessments where supervisory judgment is critical. The FSC/FSS stresses that qualitative assessment takes place not merely as part of a biennial full-scope examination, but also on an ad hoc basis as part of a partial examination performed to address vulnerabilities and risk factors as they are identified. In addition, a considerable amount of assessment criteria for CAMEL-R, the Management and Risk components in particular, is dedicated to qualitative aspects that incorporate the examiners' supervisory judgment. Nevertheless, the FSC/FSS will act on the mission team's recommendation in order to further strengthen qualitative assessment with more in-depth risk analysis and partial examinations.

34. In addition, the assessment report notes in EC1 that CAMEL-R is linked to the PCA framework but has not yet been triggered for banks. This is factually incorrect: Korea's bank supervisors issued PCAs to four banks upon CAMELS assessments conducted between April and November 1998 following the Asian financial crisis.

Supervisory techniques and tools (CP 9)

35. Under the current system, the FSC/FSS conducts ad hoc partial examination when the off-site surveillance identifies weaknesses and vulnerabilities to risks. In addition, the FSC/FSS has been working on plans to bolster partial examination in order to more effectively address risk vulnerabilities of the banks.

Supervisory reporting (CP 10)

36. Under the Financial Holding Company Act, non-financial subsidiaries of a financial holding company file quarterly reports on their financial conditions and business activities. The FSC/FSS also has the authority to compel them to submit data or comply with interview requests regarding their business affairs or properties.

37. Regarding the use of external experts in bank examination, there are guidelines in place to help assess the quality of work performed by external experts and prevent conflict of interest. Currently, external experts are required to comply only with their contractual obligations on suitability assessment and reporting mainly because their participation very much remains limited (1.8 percent or 15 of the 811 examinations conducted as of the end of November 2013). The FSC/FSS, however, expects to come up with more formally established rules and regulations on the use of external experts in anticipation of growing demand for them.

Corrective and sanctioning powers of supervisors (CP 11)

38. The FSC/FSS undertook a number of changes to the examination procedures in January this year. As a result, the FSC/FSS now sends examination findings to the bank within five months for a full-scope examination and within four months for a partial examination. Findings unrelated to sanctions on the bank or its employees—such as CAMEL-R ratings—can be notified

separately before the final exam report is issued. Going forward, the FSC/FSS will continue to work on improving post-examination notification and supervision.

Consolidated supervision (CP 12)

39. The risk management assessment criteria for financial holding companies currently consist of ten qualitative components including group-wide risk strategy and profiles. (The qualitative components relate to, among others, whether there is sufficient understanding of the management on group-wide risk profile or strategies to manage capital at risk, whether the group maintains a risk management framework commensurate with its business strategies, and whether the management of the subsidiaries was consulted before group-wide business strategies were set.) The plan going forward is to continue to work on improving the qualitative components as needed.

40. The FSC/FSS maintains a centralized information management system for information produced by non-bank departments. Under the system, departments charged with examination and supervision of bank holding companies share and access business reports from the FSS Integrated Financial Analysis System. Information on material changes taking place at each individual financial institution is accessed from the FSS Information Management System.

Corporate governance (CP 14)

41. The assessment report recommends the integration of the Model Guidelines on Sound Compensation Principles into the supervisory regulations. The FSC/FSS notes that the proposed Act on Governance of Financial Institutions, which encompasses most of the sound compensation principles in the model guidelines, was submitted to the National Assembly on June 18 and is being deliberated at the National Assembly. The assessment report also refers to the absence of regulation on conflict of interest. The FSC/FSS notes that the Banking Act explicitly sets forth provisions designed to prevent conflict of interest between the board of directors of a bank and other stakeholders and between a bank and its customers.

Risk management process (CP 15)

42. Currently, banks are required by law to incorporate the results of risk assessment and stress testing to their capital planning in accordance with the Model Guidelines on Stress Testing. The FSC/FSS regularly assesses the banks' compliance with stress testing and plans to formally adopt the guidelines into the regulation.

43. With regards to the recommendation for independent external verification of compliance with the regulations, the FSC/FSS notes that banks are required to conduct internal audit of risk management. The adequacy of internal audit of risk management also comes under regulatory scrutiny under the CAMEL-R assessment.

44. The assessment report recommends regulations for mandatory reporting of the bank's risk management unit to the chief risk officer (CRO) and the composition of the bank's risk

committee. The proposed Act on Governance of Financial Institutions, which is making its way through the National Assembly, expressly provides for risk committee and its composition.

Capital adequacy (CP 16)

45. The FSC/FSS does not agree with the assessment of Principle 16 (capital adequacy) for the following reasons:

- First, the FSC/FSS has faithfully and consistently complied with Basel standards, including capital standards, definition of capital compositions, and the regulatory ratios. This partly explains why domestic banks were able to maintain more than sufficient levels of capital throughout the global financial crisis. It also explains why the common equity tier 1 capital of Korean banks is expected to rise under Basel III unlike that of many large banks in the developed countries.
- Second, with regard to Pillar II, the FSC/FSS has carried out well-tailored capital supervision. The rigorous off-site surveillance of the 18 domestic banks enables bank supervisors to take immediate follow-up supervision action (and disciplinary action if warranted). For example, the stress tests the FSC/FSS conducted during the financial crisis period were tailored to the risk profile of each individual bank, and banks with the capital ratio below 10 percent under stress scenario were directed to raise capital.
- Third, the FSC/FSS does not agree to the finding that bank supervisors did not verify in advance changes to estimates and parameters that had been used in the internal ratings-based models because such changes were in practice subject to advance approval from bank supervisors. The FSC/FSS will take appropriate follow-up actions where more clearly established rules will minimize the likelihood of such misunderstanding.

46. In short, the FSC/FSS feels strongly that the materially non-compliant finding is based on an inaccurate assessment that fails to take into account the full breadth and scope of Korea's capital regulation regime in terms of enforcement and compliance, or the high quality of bank capital. It appears that the materially non-compliant finding is more or less driven by minor deficiencies in the explicitness of regulations on ICCAP.

Problem Assets, Provisions, and Reserve (CP 18)

47. The FSC/FSS does not agree with the assessment of Principle 18 (problem assets, provisions, and reserve) for the following reasons:

- Since the introduction of the IFRS in 2011, domestic banks have been setting aside loan loss provisions as provided for under the IFRS. The FSC/FSS ensures high loss-absorbing capacity by directing the banks to perform credit assessment of individual borrowers at risk of default when performing provision calculations. Where the level of provisioning required under the IFRS falls below the level of estimated loss, the difference must be made up and set aside as additional provisions. (At the end of September of this year, domestic banks' loan loss provisions were KRW10.4 trillion more than the IFRS-based provisions of KRW21.2 trillion.)

- Bank supervisors use the SBL ratio or the ratio of loans classified as substandard or below as a measure of soundness and for reporting purposes. The SBL ratio is more conservative than the more common NPL ratio because it incorporates the borrowers' debt-servicing ability. (At the end of September, domestic banks' SBL ratio was 1.79 percent and the NPL ratio 1.23 percent.)
- A loan under debtor-creditor workout is also subject to stringent loan classification requirements. It must be classified as an SBL at the time of the workout and can be reclassified to a higher loan classification category only after the borrower has met the rescheduled payment obligations for a considerable period of time and can demonstrate the capacity to fully service the loan (principal and interest) under the forward-looking criteria. Similarly, the reclassification of an NPL into a performing loan may be made only after the borrower's debt-servicing capacity has significantly improved. The FSC/FSS wishes to note that rule changes are currently in the works to provide specific regulations on NPL reclassification.
- For the fair value of collateral supporting an SBL, Korea's banking regulation provides specific and prudent rules on estimating the recovery amount net of any incidental expenses. The standard practice for the banks is to perform conservative collateral valuation on the basis of market price and appraisal value with additional pricing information from the collateral's cash convertibility (liquidity) and bids and offers in court auctions.

48. The FSC/FSS acknowledges some discrepancy between banks and nonbanks on the criteria to be met for a default—e.g., 90 days past due for banks and 180 days past due for nonbanks—as noted by the mission team. It must be stressed, however, that both banks and nonbanks must adhere to the same set of classification and provisioning standards on a consolidated basis, and the FSC/FSS has been fine-tuning the supervision rules to encourage convergence on default criteria for both banks and nonbanks. (Default for mutual savings banks will be changed to 120 days beginning July 2014; for credit cooperatives and unions, it has already been changed to 120 days in July 2013 and will become 90 days—as is the case for banks—in July 2014).

Concentration risk and large exposure limits (CP19)

49. It is difficult to agree to the overall thrust of CP 19 assessment. Because of domestic banks' heavy business concentration at home, bank supervisors take the due care in order to ensure domestic banks effectively manage concentration risk stemming from specific borrowers, industries, and other identifiable concentration categories. While the rules and regulations on concentration risk and large credit exposures may fall short of highly detailed provisions, such risks are effectively managed and controlled in practice because large credit extensions are carefully scrutinized and decided through deliberations by the bank's loan review committee and risk committee with the participation of a member of the board of directors of the bank. In addition, bank supervisors periodically inspect the banks' management of concentration risk through on-site examinations and monthly or quarterly reports and examine the adequacy of internal controls for concentration risk.

50. The mission team makes the observation that bank supervisors make use of the term "same borrower" (a borrower together with any party specially connected with or related to

the borrower) as the term is defined under the Fair Trade Act. The FSC/FSS notes that this is essentially an insignificant matter of formality and that bank supervisors employ strict prudential standards on bank credit extensions not only to the borrower, but also to any related persons that effectively share the risk of default with the borrower.

51. It should also be noted that bank regulators at the Basel Committee have not yet come up with the final rules and regulation on concentrated risk or large credit exposures. The FSC/FSS is looking to set more concrete rules and regulations in line with what the Basel Committee sets forth.

Transactions with related parties (CP20)

52. The FSC/FSS carries out strong and effective supervision of related-party transactions. This is also a matter yet to be firmly dealt with by the Basel Committee. When it does, the FSC/FSS expects to follow up with additional measures to further reinforce the regulatory regime on related-party transactions.

Market risk (CP22)

53. Under the existing banking regulation, 17 of the 18 domestic banks are already subject to strict capital charges for market risks, and the FSC/FSS disagrees with the assessment that current exclusions are excessive, especially because it deviates from assessments given to countries that exercise similar capital charges. The FSC/FSS also wishes to stress that Korea's banking regulations clearly provide for mark-to-market valuation of the banks' trading positions, domestic banks have faithfully adhered to the regulations, and bank supervisors will continue to take steps to improve the valuation of traded market risks and ensure strong capital regimes for them.

Liquidity risk (CP24)

54. Korea's liquidity regulations provide for won liquidity ratio (≥ 100 percent) and foreign currency liquidity ratio (≥ 85 percent) to ensure effective liquidity risk management. In July 2012, the FSC/FSS set loan-to-deposit ratio requirement in order to reduce wholesale and market funding and preempt liquid risk.

55. The FSC/FSS is looking to introduce the LCR regime beginning in 2015 as set by the Basel Committee. Since the Basel Committee proposed new liquidity rules near the end of 2010, Korea's bank supervisors have been working on the implementation of the new liquidity regime with quarterly review of domestic banks' LCR calculation and other preparatory measures. Korea's bank supervisors believe that it is premature for the assessment team to point to shortcomings on the basis of detailed LCR provisions well before the new LCR regime is completed.

56. For liquidity stress tests, bank supervisors encourage the banks to design stress scenarios with their own individually tailored risk variables and assess their effectiveness. The

FSC/FSS welcomes the proposal from the mission team to further improve the utilization of liquidity stress tests with more specific regulations.

Operational risk (CP25)

57. Regulatory issues pertaining to the authorization of the board of directors on operational risk management, reporting of operational incidents, the verification of the suitability of internal models, and disaster recovery have already been faithfully incorporated in the regulation. IT-related issues have also been specifically integrated into the regulation. The plan going forward is to review some of the details in the Model Guidelines on Integrated Risk Management for new regulation.

Financial reporting and external audit (CP27)

58. The mission team asserts that the bank supervisors' onsite and offsite supervision does not incorporate results from external audit. To this, the FSC/FSS responds that, under Article 48 of the Banking Act, bank supervisors may direct the external auditor to provide external audit information. In addition, the Examination Manual and RM Manual, which provide details on carrying out a bank examination, states that bank examiners may cooperate or consult with the external auditor at any time and obtain audit results during the examination.

59. The Act on External Audit of Stock Companies subjects listed companies, companies to be listed, and companies with assets in excess of certain thresholds to independent external audit. This requirement extends to most deposit-taking institutions. In addition, deposit-taking institutions not subject to external audit under the Act on External Audit of Stock Companies are subject to external audit under sector-specific regulations.

Disclosure and transparency (CP28)

60. Domestic banks have been faithfully complying with regulatory disclosure requirements, and the disclosure items encompass most of those covered under Pillar 3. The FSC/FSS does not use Pillar 3 as a separate disclosure regime; disclosures are instead made through the Korea Federation of Banks' Uniform Disclosure Standards for Financial Businesses. It is therefore erroneous to assume that Pillar 3 is not in effect in Korea.

61. For regulation on compensation arrangements, the FSC/FSS has issued model compensation guidelines in January 2010 as supervisory guidance. As a way to encourage compliance, the FSC/FSS regularly collects implementation data and incorporate compliance performance in the supervisory ratings. In November 2013, bank supervisors conducted an extensive review of the status of compensation arrangement and issued supervisory guidance on areas in need of improvement.

CPSS-IOSCO PRINCIPLES FOR FINANCIAL MARKET INFRASTRUCTURES

A. Introduction

62. This Report on the Observance of Standards and Codes (ROSC) summarizes the findings and recommendations of the assessments of the BOK-Wire+ and the Korea Stock Exchange (KRX) central counterparty (CCP) based on the CPSS-IOSCO Principles for Financial Market Infrastructures (PFMI). The assessment was undertaken as part of the work of the Financial Sector Assessment Program (FSAP) mission that visited the Republic of Korea in April, and July 2013. The assessors were Gynedi Srinivas of the World Bank's Payment Systems Development Group and Froukelien Wendt of the IMF's Monetary and Capital Markets Department.

63. The objective of the assessment has been to identify potential risks related to the financial market infrastructures (FMIs) that may affect financial stability. While safe and efficient FMIs contribute to maintaining and promoting financial stability and economic growth, they may also concentrate risk. If not properly managed, FMIs can be sources of financial shocks, such as liquidity dislocations and credit losses, or a major channel through which these shocks are transmitted across domestic and international financial markets.

64. The scope of the assessment includes two main FMIs as well as the authorities in Korea responsible for regulation, supervision and oversight of FMIs. The BOK-Wire+ and the KRX CCP are assessed against all relevant principles of the PFMI. The authorities, being the Bank of Korea (BOK), the Financial Services Committee (FSC), and the Financial Supervisory Service (FSS), are assessed using the responsibilities for authorities of FMIs. Unlike the BOK-Wire+ system, the KRX-CCP has not been assessed earlier during an FSAP.

B. Information and Methodology Used for Assessment

65. The information used in the assessment includes relevant national laws, regulations, rules, and procedures governing the systems and other available material. Other available material included annual reports, the self assessments, responses to the IMF questionnaire, websites from the regulators, overseers, supervisors, operators and stakeholders, and other relevant documents.¹ In addition, discussions were held with regulators, overseers, and supervisors, being the BOK, FSC, and FSS. The assessment also benefited from discussions with the KRX, Korea Securities Depository (KSD), and main stakeholders.

66. At the request of the IMF the authorities conducted self assessments. The BOK prepared a self assessment of the BOK-Wire+ system, whereas the FSC conducted an assessment of the KRX-CCP. Both self assessments were based on the PFMI. The self assessment included an assessment of the responsibilities of the Korean authorities.

¹ Not all information was available in English. Therefore, not all references to documents could be fully verified.

C. Main Findings

67. Korea has a well-developed payment, clearing, and settlement infrastructure. The BOK-WIRE+ is the real-time interbank gross payment and settlement system, and the backbone of the infrastructure where the final payments of various markets are settled. It is operated by the BOK. The KRX is the main player in the securities and derivatives market, operating three exchanges and offering clearing and settlement services for all securities and derivatives traded on the KRX. While the authorities have decided to establish a CCP for over-the-counter (OTC) derivatives at a future date, discussions are ongoing on the desirability of transforming the current trade reporting systems into full-fledged trade repositories (TRs). The planned CCP for OTC derivatives should ensure full compliance with the PFMI before being launched, taking into account lessons learned from the assessment of the CCP for exchange-traded products.

68. The BOK-Wire+ is largely compliant with the PFMI, and is overall sound. It is subject to comprehensive and transparent risk management frameworks comprising clear policies and guidelines, governance arrangements, and operational systems including regularly tested default and business continuity procedures. All transactions once settled in the BOK-Wire+ are deemed final and irrevocable, as well as bankruptcy remote.

69. There is room for improvement in certain areas to enhance the level of compliance with the PFMI. It is recommended that the operator of the BOK-Wire+ improves the collateral risk management framework by adopting regular testing of haircuts and an independent validation of haircut procedures at least annually. The BOK should provide more clarity in the regulations regarding on settlement finality and queue management, particularly with regard to revocation of queued transactions. It should also fully implement the disclosure framework, including disclosure of relevant rules and regulations in English. Finally, the BOK's oversight powers should be strengthened, to include linked FMIs and participants, particularly to obtain authentic information and enforce compliance.

70. The CCP of the KRX broadly complies with the PFMI. The CCP contributes to the safety and efficiency of the securities and derivatives market in Korea, but also concentrates systemic risk. Important steps to improve its risk management systems have been initiated in the recent period such as the introduction of intraday margin calls, back testing and sensitivity analysis, which need to be further implemented. The sizes of the joint compensation fund and settlement reserves have been increased to strengthen KRX's financial protection against a potential default of its clearing members. The introduction of the operational risk management system in January 2013 enables the KRX to manage its companywide risks in a consistent and comprehensive manner.

71. Additional steps to further compliance of the CCP with the PFMI related to the management of credit risks are warranted. The KRX should reform the credit risk management framework for the securities market, by collecting risk-based collateral (margin) on a daily basis to cover the KRX's exposures towards its clearing members between the transaction and settlement days. The KRX may also reconsider the current design of its joint compensation funds, in particular by removing the fixed size requirement of the fund to better adapt to increased exposures. The KRX's criteria for settlement banks and custodians should be increased. Finally, the KRX's risk

management framework, and in particular its margin model, should be reviewed and validated by an experienced and independent entity, such as an academic or a consultant.

72. The independence of the KRX risk management committee should be improved and the size of staff responsible for the management of credit and liquidity risk should be increased.

The committee, although independent of the business departments, is chaired by an executive director who is also responsible for strategy and planning, and therefore not fully independent from business related matters. Staffing levels in the risk management team and the clearing and settlement department responsible for risk management is small compared to the scope of their responsibilities; it should be increased. More generally, the focus of the KRX on the safety and efficiency of the CCP could be increased, for example by placing higher priority on the safety and efficiency of the CCP and on financial stability in the KRX's company objectives.

73. Recovery planning for CCPs has recently been introduced as a tool to reduce the potential burden for tax payers.

FMI should maintain viable plans with preventive measures for restoring the FMI's ability to operate as a going concern. In drafting a recovery plan the KRX should decide which of its operations are critical to continue in times of crisis. The KRX should also develop crisis scenarios that go beyond the default procedures and business continuity plans (BCoPs). The scenarios may cover extreme but plausible events, such as the default of a large participant that is part of a financial group that provides multiple services to the KRX, such as settlement and custody activities combined with a decrease in the value of assets widely used as collateral.

74. The overlap in responsibilities among the FSC and BOK hampers effective regulation, supervision, and oversight of the KRX CCP.

Overlap in regulation between central banks and market regulation is common in many countries. Authorities in those countries should ensure the effectiveness of supervision and oversight by appropriate cooperation and coordination arrangements. The mission is of the opinion that the BOK and FSC do not appropriately cooperate in the regulation, supervision and oversight of the FMIs in Korea, in particular with regard to the KRX and the KSD. Formal cooperation among the BOK and FSC at the highest level has not been used to discuss any matters related to FMIs. The cooperation at the technical level is informal, without adequate agreements that supported the BOK in effectively exercising its oversight responsibilities.

75. It is therefore recommended to formalize the cooperation among the BOK and FSC at a more technical level, for example the FSC capital markets division and the BOK payment systems policy team.

Such a cooperative framework could be in the form of a Memorandum of Understanding (MOU) to ensure effective coordination between the BOK and FSC where their roles as regulators overlap. It should enable the BOK to ensure that its suggestions are implemented and to confirm the authenticity and completeness of the information submitted by the FMIs. The BOK and FSC should "speak with one voice" to avoid any inefficiencies in their communication towards the KRX and KSD. It should also allow the FSC to benefit from relevant information that is obtained by the BOK during international meetings or meetings with the FMI operations council. The authorities should develop a crisis management framework allowing timely coordination in case of an operational or financial crisis.

76. To further improve the regulatory structure for FMIs it is recommended to increase the powers of the BOK and the resources of the FSC. There is a need to amend the existing statute to provide the BOK with enforcement tools to effectively discharge its oversight responsibilities. Also, although the FSC staff has good knowledge and is relatively effective in its activities the workload is considered too large for one staff member, especially given the complexity of the topic and the two-year rotation policy of the FSC. An increase in resources will support a proactive policy approach and a more effective guidance of the FSS by the FSC.

Table 3. BOK-WIRE+ Summary Compliance with CPSS-IOSCO Principles for FMIs—ROSC

Principle	Comments
1. Legal Basis	
	The BOK has a well-founded and clear legal and regulatory framework governing the operations of the BOK-Wire+ and its participants' rights and obligations. The BOK Act and the relevant regulations articulate the legal basis for the BOK-Wire+ to participants and the public in a clear and understandable way. The rules and regulations are enforceable and in accordance with the relevant acts. The relevant jurisdiction for each legal aspect is Korea. The regulation lists the various settlement services made available in the BOK-Wire+. While this provides an implicit understanding that the settlement through BOK-Wire+ is final, it is suggested that an explicit clause to this effect is inserted in the regulation. ² Further, the BOK could consider articulating its legal basis in a better manner by providing hyperlinks or placing the relevant acts and regulations on its payments systems webpage.
2. Governance	
	The BOK has an explicit commitment towards the safety and efficiency of the payment system as a whole. This is laid down in Article 81 (1) of the BOK Act. The BOK also explicitly supports and works towards financial stability in terms of article 1 of the BOK Act. These two articles read in conjunction with article 28 of the BOK Act reinforce the objectives of safety, efficiency and financial stability. Risk management decisions related to BOK-Wire+ are taken by or reported to the monetary policy committee (MPC), the ultimate decision-making body. The internal audit department audits the operation of BOK-Wire+. The National Assembly and the Board of Audit and Inspection, a government agency, audit the operations of the BOK-Wire+ as well. A consultative committee of participants in the BOK-Wire+ has been established. The committee meets at least twice a year to discuss various issues relating to risk management, business procedures, standardization of information technology (IT) systems and fees. When the BOK changes its major policies with respect to payment and settlement systems, it must notify the relevant institutions in advance and collect their opinions. The revised policy changes are placed on the website of the BOK and are also notified to the participants. The changes are also reflected in the annual Payment and Settlement Systems report which is placed on the website of the BOK. It is suggested that issues related to governance could be considered for inclusion as a separate chapter in the annual Payment and Settlement Systems report.

² Which is the ROPSS or Regulation on Operation and Management of Payment and Settlement Systems.

Table 3. BOK-WIRE+ Summary Compliance with CPSS-IOSCO Principles for FMIs—ROSC

Principle	Comments
3. Framework for the Comprehensive Management of Risks	
<p>The main risk that the BOK has identified relates to the inter-dependency between systemically important FMIs in Korea, including the BOK-Wire+, and their participants. Other systemically important systems, such as the KRX systems, Continuous Linked Settlement (CLS) and the retail payment systems conduct their ultimate settlements in the BOK-Wire+. BOK recognizes that any operational disruptions in BOK-Wire+ could cause risks to the participants and other FMIs, leading to increased credit and liquidity risks. Delays in settlement and operational disruptions in other FMIs could be potential sources of risk to the BOK-Wire+, in terms of pending payment instructions and queue management related issues, leading to an extension of operating hours of the BOK-Wire+ system. If needed an emergency response committee is set up and necessary action is taken. The BCoP is reviewed annually. The BCoP for the BOK-Wire+ deals with 12 potential scenarios. The BCoP scenarios also take into account the nonavailability of the systems of operators of FMIs like the KRX, KSD, and the Korea Financial Telecommunications and Clearing Institute (KFTC)³ on a system-by-system basis. It is recommended to develop in addition scenarios that deal with the simultaneous disruption of more than one FMI.</p>	
4. Credit Risk	
<p>BOK's exposure to credit risk is limited as it provides intra-day credit to participants on a fully collateralized basis; however the collateral framework could be enhanced (see principle 5).</p>	
5. Collateral	
<p>The collateral management system is operated efficiently through a link with the KSD, which keeps the government securities that the BOK accepts as collateral. The assets that are accepted as collateral are subject to a haircut, have low credit and market risks and are highly liquid. However, details regarding testing the sufficiency of the haircut, stress-testing and pro-cyclicality are not available. Details of any independent validation taking place on an annual basis are also not available. There is a need to increase the frequency of the review of the haircut methodology to a monthly interval (from the existing 6 monthly cycles) and put in place an annual independent validation of the haircut procedures adopted. In addition, stress testing scenarios should include adverse market conditions in line with the PFMI requirements.</p>	
6. Margin	
Not applicable	
7. Liquidity risk	

³ The KFTC is a retail payment operator.

Table 3. BOK-WIRE+ Summary Compliance with CPSS-IOSCO Principles for FMIs—ROSC

Principle	Comments
	Liquidity risk in the BOK-Wire+ system is minimized due to the provision of an intraday liquidity facility by the BOK to the participants in the BOK-Wire+ system. Moreover, the hybrid settlement system significantly reduced the liquidity needs of the participants. BOK as operator of the system monitors the settlement and payment flows in the BOK-Wire+ system on a real time basis and initiates measures if required to smoothen payment flows. The differential pricing fees mechanism also contributes to smoothening payment flows throughout the operating hours of the BOK-Wire+ system. Nevertheless, there is a concentration of settlement transactions after 4.00 pm, due to incoming settlements from KRX, and settlement of call loans and repo transactions (which are the principal sources of liquidity for financial investment companies). In view of the above, an impact study on the impact of differential pricing on payment flows may be undertaken by BOK.
8. Settlement Finality	
	Settlement of payment transfers in BOK-Wire+ is achieved in real-time and payments once settled are final and irrevocable; cash settlement happens in central bank money. The BOK-Wire+ provides for finality of settlement as set out in article 5 of the relevant BOK-Wire+ regulation, in which the various types of settlement services provided by BOK-Wire+ are specified. However, the regulation and working regulation ⁴ do not explicitly define the point at which settlement is deemed final. The provisions in article 5 are implicit statements regarding the settlement finality being made available in BOK-Wire+. Further, participants can cancel/revoke a payment instruction which is placed in a queue. Revocation and cancellation can only be done with the consent of a prearranged funds beneficiary institution. It is accordingly recommended that relevant articles in the regulation and working regulation be appropriately amended to emphasize and reflect these positions.
9. Money Settlements	
	Settlements are conducted in central bank money.
10. Money Settlements	
	Not applicable.
11. Central Securities Depositories	
	Not applicable.
12. Exchange-of-Value Settlement Systems	
	Delivery versus Payment (DVP) and payment versus payment settlement mechanisms are being used for the settlement of securities and foreign exchange transactions respectively in central bank money in the BOK-Wire+. Adoption of these forms of settlement has led to the elimination of principal risk.

⁴ The regulation and working regulation are respectively the Regulation on Operation and Management of Payment and Settlement Systems (ROMPSS) and the Working Regulation on Operation and Management of Payment and Settlement Systems (WROMPSS).

Table 3. BOK-WIRE+ Summary Compliance with CPSS-IOSCO Principles for FMIs—ROSC

Principle	Comments
13. Participant-default values and Procedures	
The BOK has rules and procedures governing the disposal of collateral of a defaulting participant with respect to the intraday liquidity facilities provided by the BOK. These rules and procedures are publicly available on the BOK webpage. In addition, when the rules and procedures are revised, the BOK reflects the opinions of the relevant institutions and provides guidance to participants through the BOK-Wire+ before the date of effect of such revision.	
14. Segregation and Portability	
Not applicable.	
15. General Business Risk	
BOK monitors the risk. As the BOK-Wire+ is a central bank owned system its ultimate objective is to support public interest with the BOK paying attention to financial stability in carrying out its monetary and credit policies as laid down in Article 1 (2), together with Article 28 (8) of the BOK Act.	
16. Custody and Investment risks	
No comments.	
17. Operational Risk	
To manage operational risk, the BOK has established comprehensive operational management guidelines covering technology, risk factors, human resources, monitoring, control and periodical testing. It has a recovery time objective (RTO) of 2 hours. The BCoP is developed in line with the relevant regulation and working regulation and relevant sub-regulations and deals with 12 potential scenarios. These are found to be adequate in tackling operational risk and ensuring the continuity of operations of BOK-Wire+. The BCoP scenarios also take into account the non-availability of the systems of operators of FMIs like the KRX, KSD, and the KFTC on a system-by-system basis. However, it is desirable to develop a more holistic approach taking into account a disaster scenario when the operations of more than one FMI are disrupted. The KSD is assessed once every two years by the BOK as part of its oversight activity. Given the critical nature of the FMI, the BOK could consider assessing the FMI at more frequent intervals.	
18. Access and Participation Requirements	
The BOK-Wire+ has fair and open access criteria for participation, which comprehensively considers each participant's risk management capability, the stable and efficient operation of the BOK-Wire+, and the possibility of systemic risk.	
19. Tiered Participation Arrangements	
Though tiered participation arrangements are in place, the risks of indirect participation in the BOK-Wire+ are very small because the scope of usage through indirect participation is limited and transactions of indirect participants through direct participants can be identified and monitored in real time. While this being so, it is not clear as to how the BOK monitors that direct participants are putting through transactions on behalf of indirect participants which are limited to the availability of funds in the indirect participants account with the direct participant. The BOK may consider seeking a periodical statement to this effect from the direct participants.	
20. FMI Links	

Table 3. BOK-WIRE+ Summary Compliance with CPSS-IOSCO Principles for FMIs—ROSC

Principle	Comments
Not applicable.	
21. Efficiency and Effectiveness	
The operational objectives stipulated in the relevant regulations on the BOK-Wire+ have been fulfilled. The BOK-Wire+ is operated efficiently and its system design has been developed to reflect the needs of the participants and the financial markets.	
22. Communication Procedures and Standards	
The BOK-Wire+ uses international standards for communicating with participants, and international messaging service providers such as SWIFT to communicate with CLS bank. The initiative to migrate to ISO 20022 message standards may be initiated and completed.	
23. Disclosure of Rules, Key Procedures, and Market Data	
The BOK-Wire+ regulation and its sub-regulations are disclosed through the website of the BOK and, to facilitate participants' understanding of BOK-Wire+, the BOK provides them with manuals and guidebooks. The BOK plans to use the disclosure framework published by the CPSS-IOSCO in December 2012. In addition, the BOK should also make the relevant information and data it discloses, in a language commonly used in financial markets in addition to the domestic language.	
24. Disclosure of Market Data by Trade Repositories	
Not applicable	

Table 4. KRX-CCP Summary Compliance with the CPSS-IOSCO Principles for FMIs—ROSC

Principle	Comments
1. Legal Basis	
<p>The legal basis for the KRX-CCP is generally sound and enforceable. The Financial Investment Services and Capital Markets Act (FSCMA) and the KRX market regulations sufficiently describe the organization and responsibilities of the KRX. The Debt Rehabilitation and Bankruptcy Act provides for a firm statutory foundation for netting, set-off and closing out of positions. There's a high certainty that the KRX regulations, procedures and contracts are enforceable in the Korean jurisdiction. A third country financial institution which intends to apply for KRX membership has to establish a local entity or a branch to get a business license from the FSC as a financial investment trader or financial investment broker.</p> <p>There is room to improve the legal framework in the normal course of business. The regulatory framework could be further improved by increasing its clarity. The relevant provisions for CCP clearing are currently comingled with concepts related to the KRX trading activities. The KRX regulations could make better use of the internationally used concepts, in particular the concepts used in the PFMI. Finally, as the KRX currently has not developed a recovery plan the regulatory framework has no explicit provisions that support recovery activities.</p>	
2. Governance	
The governance arrangements of the KRX are transparent and the roles and responsibilities of its board and management are clearly described and publicly available. Nonexecutive directors are appointed to represent	

Table 4. KRX-CCP Summary Compliance with the CPSS-IOSCO Principles for FMIs—ROSC

Principle	Comments
	<p>public interests. The KRX has established a risk management committee and a risk management department to identify, monitors, and manage companywide risks as well as CCP related risks. The risk management department reports to the board and the board endorses major decisions.</p> <p>The governance arrangements do however contain some gaps and issues of concern that should be addressed in a defined timeline. The risk management committee is, although independent of the business departments, chaired by an executive director who is also responsible for strategy and planning, and therefore not fully independent from business related matters. The risk management team and the clearing and settlement department, that are responsible for the management of credit and liquidity risks, is small compared to the scope of their responsibilities. It is therefore recommended to extend staff resources dedicated to risk management. Finally, the objectives of the KRX do not place a particular high priority on the safety and efficiency of the KRX-CCP. It is recommended to include the safety and efficiency of the CCP as one of the objectives of the KRX and explicitly state that the KRX CCP intends to support financial stability.</p>
	3. Framework for the Comprehensive Management of Risk
	<p>The KRX has developed a companywide risk management framework, consisting of policies, tools, governance arrangements, and default procedures for managing credit, liquidity, operational, and market risks. The risk management framework has recently been implemented and requires business departments and the market oversight department to identify, monitor and manage its risks. In addition to this bottom-up approach the KRX board decides on risk management limits. The risk management framework is reviewed on an annual basis and includes risks related to external stakeholders, such as settlement banks, the KSD and the BOK. The risk management framework is regularly assessed through independent audits.</p> <p>The KRX has not started with the development of plans for recovery or orderly wind down. The KRX should decide which of its operations are critical to continue in times of crisis. KRX should also develop crisis scenarios that go beyond the default procedures and BCoPs. The scenarios may cover extreme but plausible events, such as the default of a large participant that is part of a financial group that provides multiple services to the KRX, such as settlement and custody activities and a simultaneous decrease in the value of its collateral. The lack of such a plan is an issue of concern, given the size of systemic importance of the KRX-CCP and the impact of a potential failure of KRX on the financial stability in Korea.</p>
	4. Credit Risk
	<p>The KRX has identified various sources of credit and liquidity risks related to its CCP activities. The KRX has developed the settlement risk management system that monitors credit exposures per clearing account in real time. For the derivatives markets credit risks are in general properly identified and monitored. The KRX manages credit risks in the derivatives markets by collecting margin, joint compensation fund contributions and by allocating its settlement reserves to cover credit losses. The KRX uses daily stress testing to determine the sufficiency of its financial resources available in the event of a clearing member's default in extreme but plausible market conditions. The KRX has defined a risk management waterfall for the use of financial resources in case of credit losses. The legal and regulatory framework supports this framework.</p> <p>Several features of the credit risk management framework are not fully in line with the PFMI requirements. The credit risk management models, including the margin models, are not validated by an independent entity, such as its regulators or an external expert, such as an academic or consultancy bureau. The concept of affiliated</p>
	<p>Members are not yet considered in the credit risk management framework of the KRX. The risk management waterfall may better reflect the requirement of the PFMI that part of the KRX capital should be taken before the financial resources of surviving clearing members can be used (skin in the game). Although back testing and sensitivity analysis to measure the adequacy of its margin model are not available yet, the KRX has well developed plans to introduce them in the autumn of 2013.</p>

Table 4. KRX-CCP Summary Compliance with the CPSS-IOSCO Principles for FMIs—ROSC

Principle	Comments
5. Collateral	<p>The KRX has established clear policies regarding eligible collateral and has tools to set and enforce conservative haircuts. The KRX can further improve its collateral management by implementing collateral limits. The KRX accepts a broad range of assets as collateral, including domestic and foreign cash, listed bonds, US government bonds, and listed securities. In practice, the majority of collateral is deposited in government bonds. Collateral is marked to market on a daily basis, except for bond securities which are marked to market on a weekly basis. KRX should implement a stress testing framework for collateral.</p>
6. Margin	<p>For the derivatives market the CCP covers its credit exposures to its clearing members through a margining system,⁵ which is based on internationally used margin models. The margin model is risk based and comprises both initial and variation margin. The initial margin is determined per product group based on the maximum net loss, calculated with a 99.7 confidence level and using a 2-day close-out period. The scenarios used for calculating volatility margins are based on price changes in the underlying assets and option volatility. The KRX allows for offsets in a conservative way. Currently, the CCP does not have the operational capacity to make intraday margin calls, although it has well-developed plans to implement intraday margin calling in 2014.</p> <p>Several features of the credit risk management framework are not fully in line with the PFMI requirements. The credit risk management models, including the margin models, are not validated by an independent entity, such as its regulators or an external expert, such as an academic or consultancy bureau. Sensitivity analyses to measure the adequacy of its margin model are not available yet; the KRX has well developed plans to introduce them in the autumn of 2013.</p>
7. Liquidity Risk	<p>The KRX does have an effective framework for the management of liquidity risks, consisting of a liquidity guideline and access to credit lines that are sufficiently large. The KRX is able to identify, measure, and monitor its settlement and funding flows on an ongoing basis. The KRX stress tests its liquidity needs both daily and monthly and reports its findings on a quarterly basis to the risk management committee. The KRX does not stress its liquidity needs for foreign currencies, as settlements in foreign currencies are low. If needed, the KRX can draw on an FX credit line with one of its liquidity providers. The liquidity providers need to comply with specific criteria set out in KRX rules. The KRX does not rely on central bank money; however, its largest liquidity provider has a public profile and a triple A credit rating.</p>
8. Settlement Finality	<p>Securities settlements are final as soon as the settlement account has been debited or credited, which occurs real time during the settlement day. Derivatives transactions are final as soon as the KRX has determined the net obligation per clearing member, following a transaction. The Debt Rehabilitation and Bankruptcy Act protect the KRX against any insolvency proceedings following the bankruptcy of a clearing member.</p>
9. Money Settlements	

⁵ The margining system is called the Composite Optimized Margin System (COMS).

Table 4. KRX-CCP Summary Compliance with the CPSS-IOSCO Principles for FMIs—ROSC

Principle	Comments
	The KRX conducts its money settlements for the securities market in central bank money and for the derivatives markets through commercial banks. The main reason for using commercial bank money for derivatives is that the majority of clearing members active in derivatives trading do not have direct access to the BOK-Wire+. The KRX therefore uses the accounts of six commercial banks to settle cash following derivatives transactions. The KRX has a limited set of criteria to select its settlement banks. Banks should be regulated and supervised and have a capital ratio of at least 8 percent. It monitors compliance with these criteria on a monthly basis. The KRX does not impose additional requirements, such as creditworthiness, access to liquidity, and operational reliability. The KRX should increase its requirements for settlement banks and monitor compliance with these requirements regularly. It may also consider including an expiration date in its contracts with the settlement banks to provide incentives to the settlement banks to continue to provide adequate services and reduce risks.
10. Physical Deliveries	
	The derivatives market (DM) business regulations and enforcement rules specify processes, procedures and controls to monitor and manage the delivery process and associated risks related to the physical delivery of gold derivatives. The KRX requests the deposit of physical delivery margin to cover potential losses in case one of the counterparties is not able to fulfill its obligations in the delivery process. In addition, rules and procedures are in place to protect the KRX against any losses related to the damage of gold bars.
11. Central Securities Depositories	
	The KRX eliminates principal risk by applying DVP arrangements for the settlement of the different products that it clears. The arrangements ensure final settlement with conditional final settlement of one obligation upon the final settlement of the other. Different DVP models are used to ensure efficiency and accommodate the needs of different markets and different market participants.
12. Exchange-of-Value Settlement Systems	
	The KRX eliminates principal risk by applying DVP arrangements for the settlement of the different products that it clears. The arrangements ensure final settlement with conditional final settlement of one obligation upon the final settlement of the other. Different DVP models are used to ensure efficiency and accommodate the needs of different markets and different market participants.
13. Participant-default Rules and Procedures	
	The KRX has developed default rules and procedures to manage a participant's default. The KRX has appropriate discretionary power to implement these rules. The rules do include the necessary actions to be taken by the KRX, potential changes to normal settlement practices, the treatment of proprietary and customer transactions and accounts and the existence of other mechanisms that may be activated, such as an auction. The default manual is tested on an annual yearly basis. Key stakeholders are involved in the testing. The KRX rules and regulations could articulate certain key aspects in a more extensive way, such as the actions that an FMI can take when a default is declared and the extent to which such actions are automatic or discretionary. The internal plan should be reviewed by its management and the relevant board committees at least annually or after any significant changes to the FMI's arrangements.
14. Segregation and Portability	

Table 4. KRX-CCP Summary Compliance with the CPSS-IOSCO Principles for FMIs—ROSC

Principle	Comments
	Segregation and portability arrangements are in place for the securities and derivatives market. The account structures of the KRX, KSD, settlement banks, and clearing members segregate the clearing member's proprietary assets from its customer assets. The segregation and portability arrangements are supported by the legal framework. The relevant laws and regulations are publicly disclosed. Although the KRX is not able to monitor individual client positions during normal business it has the power to ensure timely transfer of customer accounts from the failing participant to another participant in times of crisis. The CCP may extend its provisions on portability arrangements for the securities market and use similar rules for the securities market as are currently available for the derivatives market.
15. General Business Risk	
	The KRX has a system in place to identify potential general business risks, which includes risks related to the introduction of new products and services. The KRX holds sufficient liquid net assets funded by equity so that it can continue operations and services as a going concern if it incurs general business losses. However, as the KRX does not have a plan for recovery or orderly wind-down, no explicit link is drawn by the KRX between the size of its liquid net assets and the length of time required to maintain its critical operations and services. Assets held to cover general business risk are of sufficient quality and liquidity. The KRX can raise additional equity if needed. The potential recovery plan of the CCP should link the size of the available liquid net assets and the length of time requirement to maintain critical operations and services. It should also contain a reassessment of the sufficiency of the size of the settlement reserves.
16. Custody and Investment Risks	
	The KRX holds its own and its participants' assets at supervised and regulated entities, but the KRX should enhance the monitoring of its custodians. KRX' selection criteria for custodians and subsequent monitoring systems should be upgraded to ensure that these entities have robust accounting practices, safekeeping procedures, and internal controls that fully protect the assets held in custody. The maximum allowed concentration of settlement flows is set at 60 percent, however the KRX may analyze whether it is able to withstand the default of a custodian holding 60 percent of assets and adapt the percentage if needed. The KRX's investment strategy allows only investments in cash, government bonds, and monetary stabilization bonds, which supports timely liquidation. The KRX should disclose its investment policy in English.
17. Operational risk	
	The KRX has an operational risk management framework in place consisting of systems, policies, procedures, and controls to identify, monitor and manage operational risks. Its procedures ensure scalable capacity adequate to handle increasing stress volumes. The KRX recently developed policies for physical and information security policies. A BCoP is in place, as well as a secondary and third site. The BCoP is regularly tested with all relevant stakeholders. The RTO is 3 hours, which allows for same day settlement, but is not fully in line with the prescribed RTO of 2 hours by the PFMI.
18. Access and Participation Requirements	
	The access criteria of the CCP allow for fair and open access to its services based on reasonable risk-related participation requirements. The KRX has publicly disclosed procedures for facilitating the suspension and orderly exit of a participant that no longer meets the participation requirements.
19. Tiered Participation Arrangements	
	The current legal framework does not allow the KRX to monitor settlement positions of individual customers. Subsequently, the KRX is not able to monitor positions at that level. The KRX's regulations regulate the relationship between its participants and its indirect participants. The KRX is however able to regularly identify indirect participants responsible for large positions in the DM market. It should increase its possibilities to identify risks from tiered participation in the securities market.

Table 4. KRX-CCP Summary Compliance with the CPSS-IOSCO Principles for FMIs—ROSC

Principle	Comments
20. FMI Links	
	Not applicable.
21. Efficiency and Effectiveness	
	<p>The KRX has arrangements in place to consult its participants on a regular basis and address their needs in the design of its services. The CCP is subject to government audits that aim to ensure the efficiency of the KRX's operations. Its fees and investments are subject to approval of a market efficiency committee. The KRX has established mechanisms for the regular review of its efficiency and effectiveness, such as customer satisfaction surveys.</p> <p>The KRX does not use internationally accepted communication procedures and standards for communication with its clearing members, settlement banks, the KSD, and the BOK. Conversion into internationally accepted communication procedures and standards is technically possible, but costly. The KRX should at least be able to accommodate the internationally accepted communication network and procedures to eliminate manual interventions in clearing and settlement processing, reduce risks, and increase efficiency by allowing for full straight through processing.</p>
22. Communication Procedures and Standards	
	<p>The KRX does not use internationally accepted communication procedures and standards for communication with its clearing members, settlement banks, the KSD, and the BOK. Conversion into internationally accepted communication procedures and standards is technically possible, but costly. The KRX should at least be able to accommodate the internationally accepted communication network and procedures to eliminate manual interventions in clearing and settlement processing, reduce risks, and increase efficiency by allowing for full straight through processing.</p>
23. Disclosure of Rules, Key Procedures, and Market Data	
	<p>The KRX has recently disclosed responses to the CPSS-IOSCO Disclosure Framework for FMIs, which enables participants to appropriately assess the risks they incur by participating in the CCP. Rules and regulations are disclosed on the website in Korean. Various rules and regulations are available in English as well. The website also contains statistics and various descriptions of the risk management and operational systems. KRX provides ad hoc training and information to its clearing members. Fees are also publicly disclosed. It is recommended that the KRX discloses all its rules, regulations and guidelines on its website in English.</p>
24. Disclosure of Market Data by Trade Repositories	
	Not applicable.

Table 5. Authorities' Summary Compliance with the CPSS-IOSCO Responsibilities—ROSC

Responsibility	Comments
A. Regulation, supervision, and oversight of FMIs	
	<p>FMIs in Korea are subject to regulation and oversight of the BOK and subject to regulation and supervision of the FSC and FSS. The legal underpinning of the responsibilities suggests overlap as both regulators are responsible for financial stability and have responsibilities related to the KRX and KSD. This is the case in many countries and needs to be managed by a consultative and cooperative framework in the form of an MOU to ensure effective coordination between the BOK and FSC where their roles as regulators overlap.</p>

Table 5. Authorities' Summary Compliance with the CPSS-IOSCO Responsibilities—ROSC

Responsibility	Comments
B. Regulatory, supervisory and oversight powers, and resources	
	<p>The powers of the FSC and FSS are considered sufficient. The powers of the BOK are considered not to be effective. While the BOK may request other FMIs than the BOK-Wire+ to take measures for the improvement of their operating rules and to provide related information, it has no powers to ensure that its suggestions are implemented, nor is the BOK able to confirm the authenticity of the submitted information and ascertain whether only selective information has been submitted by these entities. There is a need to amend the existing statute to empower the BOK to effectively discharge its oversight responsibilities including the powers to obtain authentic information and to be able to oversee that its observations/findings are implemented by the FMIs and the ability to impose sanctions when required.</p> <p>The resources of the BOK and FSS are considered sufficient, however, the resources of the FSC are considered insufficient. Although the FSC staff has good knowledge and is relatively effective in its activities the work load is considered too large for one staff member, especially given that staff members rotate every two years. The seconded KRX staff brings appropriate knowledge, however, may prevent the FSC from preparing independent opinions. It is recommended that the FSC extends the number of staff members responsible for clearing and settlement related matters to allow for a proactive and complete analysis of the compliance of the KRX CCP with the relevant laws, regulations, and the PFMI. It will also allow for a more proactive cooperation with the FSS.</p>
C. Disclosure of policies with respect to FMIs	
	<p>The authorities disclose the main laws and policies on FMIs, but further disclosure of information is recommended. The BOK discloses its policies publicly with respect to all FMIs including the BOK-Wire+. The FSC and FSS objectives are publicly disclosed in the FSCMA. The BOK should make the relevant information and data it discloses, in a language commonly used in financial markets in addition to the domestic language on its website. The FSC and FSS should provide dedicated information on FMIs on their websites.</p>
D. Application of the principles for FMIs	
	<p>The BOK and FSC have both publicly announced their support for the PFMI; further implementation of the PFMI is needed. The BOK has implemented the PFMI as the oversight framework for the BOK-Wire+. The BOK's application of the PFMI as the oversight framework is however incomplete, due to the regulatory overlap with the FSC and the BOK's lack of powers to see that its decisions are implemented by other FMIs. The FSC intends to adapt the regulations under the FSCMA in accordance with the PFMI. The FSC, together with the FSS, is in the process of approving regulations for OTC derivatives trading and clearing. Regulations for exchange traded stocks, bonds and derivatives have not yet been adapted to reflect the PFMI.</p>
E. Cooperation with other authorities	
	<p>The BOK and FSC do not appropriately cooperate in the regulation, supervision and oversight of the FMIs in Korea, in particular regarding the regulation, supervision, and oversight of the KRX and KSD. Cooperation among the BOK and FSC at the highest level has proven not to be effective, as FMIs so far have not been discussed at that level. The cooperation at the technical level is informal, without adequate agreements and arrangements. This impedes the BOK from effectively exercising its oversight duties. The KRX has to respond to requirements of two different regulating and supervising authorities that may be overlapping or even contracting. The FSC cannot benefit from specific knowledge that is obtained by the BOK in its role as overseer, for example information obtained during international meetings or during the FMI operations council. There are no crisis management arrangements between the authorities to manage a potential financial or operational crisis relating to FMIs in Korea.</p>

Table 5. Authorities' Summary Compliance with the CPSS-IOSCO Responsibilities—ROSC

Responsibility	Comments
	<p>It is recommended to formalize the cooperation between the BOK and the FSC regarding the regulation, supervision and oversight of FMIs. This formal arrangement should enable the cooperation between the BOK and FSC at the appropriate technical and management level and should improve the efficiency and effectiveness of the regulation, supervision and oversight, in particular in relation to the KRX CCP and the KSD. Such a cooperative framework could be in the form of an MOU having a sound legal basis to ensure effective coordination between the BOK and FSC where their roles as regulators overlap. It should enable the BOK to ensure that its suggestions are implemented and to confirm the authenticity and completeness of the information submitted by the FMIs. The BOK and FSC should “speak with one voice” to avoid any inefficiencies in their communication with the KRX and KSD. It should also allow the FSC to benefit from relevant information that is obtained by the BOK during international meetings or meetings with the FMI operations council.</p> <p>The BOK and FSC should define arrangements regarding the frequency of their information exchange and plan joint meetings with the FSS, KRX, and KSD. They should also develop a crisis management plan and test such a plan to enable timely and effective cooperation in times of crisis that may affect the safety and efficiency of the FMIs. Any assessments should be shared. Before finalizing an assessment the authorities should consult each other and take each other's comments into account.</p>

D. Recommended Actions Regarding the BOK Wire+

Table 6. Recommended Actions to Improve Compliance with the CPSS-IOSCO Principles and the Safety and Efficiency of the FMI Infrastructure: BOK Wire+

Reference Principle	Recommended Action
5. Collateral	<ul style="list-style-type: none"> There is a need to increase the frequency of the review of haircuts to take into account changing market conditions. Details regarding testing the sufficiency of haircuts, stress testing, and pro-cyclicality should be readily available.
7. Liquidity risk	<ul style="list-style-type: none"> The participants can cancel/revoke a payment instruction which is placed in a queue (Article 10 (3) of ROMPSS and Articles (20) and (42) of WROMPSS). Revocation and cancellation can only be done with the consent of a pre-arranged funds beneficiary institution. It is recommended to amend the relevant articles in the ROMPSS and WROMPSS to emphasize and reflect this position. An impact study on the impact of differential pricing on payment flows may be undertaken by the BOK, as it would facilitate deeper analysis of the payment flows and could lead to avoidance in the concentration of payment instructions.
8. Settlement	<ul style="list-style-type: none"> The ROMPSS and WROMPSS may be suitably amended to explicitly define the point at which settlement is deemed final and irrevocable in BOK-Wire+.
3, 17. Framework for the comprehensive management of risks; Operational risk	<p>It is desirable to develop a more holistic approach for the BCoP taking into account a disaster scenario when the operations of other FMIs are disrupted rather than taking into account non-availability of Individual systems.</p>
23. Disclosure	<ul style="list-style-type: none"> The CPSS-IOSCO disclosure framework may be used to facilitate the understanding of stakeholders, including participants. All information provided in Korean language may also be made available in English on the BOK website.

E. Recommended Actions Regarding KRX-CCP

Table 7. Recommended Actions to Improve Compliance with the CPSS-IOSCO Principles and the Safety and Efficiency of the FMI Infrastructure: KRX-CCP

Reference Principle	Recommended Action
1. Legal risk	<ul style="list-style-type: none"> • Improve clarity of legal and regulatory framework by explicitly distinguishing between the trading and CCP activities in the FSCMA. The KRX regulations could make better use of the internationally used concepts. • Improve the disclosure of laws and regulations, in particular by disclosing laws and regulations in English.
2. Governance	<ul style="list-style-type: none"> • Explicitly address the CCP activities of the KRX within the KRX organization in particular by explicit and publicly disclosed objectives regarding the safety and efficiency of its operations and support for the financial stability. • The risk management committee should be chaired by an individual who is independent from the FMI's executive management.
3. Framework for the comprehensive management of risks	<ul style="list-style-type: none"> • Increase the number of staff in the KRX risk-management team to manage companywide and CCP risks in a proactive way. • Develop a recovery plan in line with the requirements stated in the PFMI and the other relevant documentation provided by the standard setting bodies CPSS and IOSCO. The legal framework should be adapted to support the plans.
4. Credit risk	<ul style="list-style-type: none"> • Reform the credit risk management framework for the securities market, by collecting risk-based collateral (margin) on at least a daily basis. • Consider to remove the fixed size requirement of the fund in the KRX regulations to better address the need for increased funds in case of increased exposures. The contribution could be based on the exposures of a particular clearing member instead of its trading volumes. • Ensure that credit risk calculations take into account not only the individual clearing members, but also its affiliates. • Continue with planned reforms regarding the introduction of back testing, sensitivity analysis and the skin in the game concept. • Ensure that credit risk management model and margin model are reviewed at least annually by a qualified and independent entity.
5. Collateral	<ul style="list-style-type: none"> • Upgrade the collateral framework by developing a concentration limit policy, apply daily mark to market for bond collateral and implement stress tests for haircuts.
6. Margin	

Table 7. Recommended Actions to Improve Compliance with the CPSS-IOSCO Principles and the Safety and Efficiency of the FMI Infrastructure: KRX-CCP

Reference Principle	Recommended Action
	<ul style="list-style-type: none"> Continue the implementation on intraday margin arrangements. Better substantiate the close-out period of 2 days for the individual products.
7. Liquidity risk	<ul style="list-style-type: none"> Implement stress testing exercises for foreign currencies.
8. Settlement finality	<ul style="list-style-type: none"> Enhance clarity of DM regulations to specify the point after which member's obligations may not be revoked by a clearing member.
9. Money settlements	<ul style="list-style-type: none"> Increase requirements for settlement banks and monitor compliance with these requirements regularly.
10. Physical deliveries	<ul style="list-style-type: none"> Further improve the DM rules and regulations by more explicitly specifying the KRX's role as CCP in the delivery process.
11. Participant-default rules and procedures	<ul style="list-style-type: none"> Further improve the securities and DM regulation by specifying the key concepts related to the management of a default by the CCP in line with the PFMI.
12. Segregation and portability	<ul style="list-style-type: none"> Extend regulations on portability arrangements for the securities market in line with the derivatives market regulations.
15. General business risk	<ul style="list-style-type: none"> The potential recovery plan of the KRX should link the size of its liquid net assets and the length of time requirement to maintain its critical operations and services. It should also contain a reassessment of the sufficiency of the size of the settlement reserves.
16. Custody and investment risks	<ul style="list-style-type: none"> Broaden selection criteria for custodians to ensure robust accounting practices, safekeeping procedures, and internal controls. The KRX should monitor compliance regularly. Reconsider the 60 percent cap on the value of assets held by one custodian based on an analysis of KRX' ability to withstand the default of a custodian holding 60 percent of assets. Disclose investment policy in English.
17. Operational risk	<ul style="list-style-type: none"> The KRX, together with the FSS, should adapt the regulatory framework to accommodate an RTO of 2 hours in line with the PFMI.
18. Tiered participation arrangements	<ul style="list-style-type: none"> Increase possibilities to identify risks from tiered participation.
19. Communication procedures and standards	<ul style="list-style-type: none"> Accommodate the internationally accepted communication network and procedures.
20. Disclosure of rules, key procedures, and market data	<ul style="list-style-type: none"> Disclose all rules, regulations and guidelines in English.

F. Recommended Actions Regarding Authorities

Table 8. Recommended Actions to Improve Compliance with the CPSS-IOSCO Responsibilities and the Safety and Efficiency of the FMI	
Reference Responsibility	Recommended Action
B. Regulatory, supervisory, and oversight powers and resources	<ul style="list-style-type: none"> • Increase powers of the BOK. • Increase resources of FSC.
C. Disclosure of policies with respect to FMIs	<ul style="list-style-type: none"> • Improve disclosure of information in English, in particular on websites of the FSC and FSS.
D. Application of the principles for FMIs	<ul style="list-style-type: none"> • Adapt the regulations under the FSCMA to reflect the requirements of the PFMI.
E. Cooperation with other authorities	<ul style="list-style-type: none"> • Formalize cooperation and coordination among the BOK and FSC regarding the regulation, supervision and oversight of FMIs.

G. Authorities' Response to the Assessment

THE BANK OF KOREA'S RESPONSE TO THE ASSESSMENT

77. The Bank of Korea (BOK) broadly shares with the IMF FSAP Mission Team's overall assessment, considering that the part covering BOK-Wire+ and the responsibilities of the authorities reflects, to a considerable extent, the BOK's opinions.

78. However, since there are some items that we find it difficult to agree on in the assessment, we would like to express our opinions related to them:

Principle 1 (legal basis)

The assessment of Principle 1 found that the BOK did not seek a legal opinion of external experts so far. However, the BOK seeks legal advices from external law firm when necessary about whether regulations concerned are consistent with relevant laws and regulations.

Principle 3 (Framework for the Comprehensive Management of Risks)

- The fact that there is a BOK-Wire+ BCoP scenario taking into account non-availability of the systems of operators of other FMIs, is clearly spelled out on various occasions in the assessment, but Key Consideration 4 for Principle 3 is not revised and remains unchanged. Thus, it needs to be revised to be consistent with the other parts. Also, comments and priority (p.34, short-term and high priority) need to be adjusted accordingly.

Principle 5 (collateral)

- The assessment seems to have been revised to reflect the BOK's opinion (the frequency of the review is set to the actual six-month cycle). However, the increase in the frequency of the review methodology to a one-month cycle seems to be excessive, in consideration of the article related to the PFMI. Practically as well, it is not only difficult but also inefficient to carry out a review in each month.

Principle 7 (liquidity risk) and principle 8 (settlement finality)

- Despite the fact that the ratings for Principle 7 and Principle 8 were revised upward, Comments and Priority remained as short-term and high priority. Given that suggested recommendations do not have much effect on the daily operation of BOK-Wire+, and that it will take some time until they will be implemented, it does not seem appropriate to apply such priority.

Principle 16 (custody and investment risk)

- The assessment recommends that BOK should assess the Korea Securities Depository (KSD) at more frequent intervals. But even under the current regulations, BOK can conduct the assessment at any time.

Principle 19 (Tiered participation arrangements)

- The BOK does not consider additional periodical reports necessary, as it is able to identify and monitor the settlement amounts made by indirect participants, the number of indirect participants on behalf of whom direct participants put through transactions, and the related settlement amounts in real time through the BOK-Wire+ monitoring system.

Principle 23 (Disclosure of rules, key procedures, and market data)

- The assessment has included Principle 23 in the prioritized recommendations and lowered the grade to partly observed, which, if any, we think should be attributable to the insufficient disclosure of relevant information in English. However, we think that the draft has not reflected the BOK's current status of English material disclosure.
- Currently, the BOK fully discloses on our English-language website the annual Payment and Settlement Systems Report, the Rules and Regulations related to payment and settlement systems, and the current status of domestic payment and settlement systems. The CPSS-IOSCO Level 1 assessment report published on August 12 this year also assessed the payment system—BOK Wire+ is the backbone of it—as an FMI in which the principles are fully observed based upon its clear links with the related regulations.
- It is difficult to understand that a partly observed rating, which meant to be an issue of concern that could become serious if not addressed promptly, was granted to a medium priority project. The information disclosure of BOK-Wire+ was rated two grades lower than that of the KRX, even though there's virtually no difference from that of the KRX. At the same time, a rating of broadly observed was given in case of Responsibility C. Taken these things together, we strongly believe that there is a problem with consistency in evaluation, and, in our opinion, Principle 23 for BOK-Wire+ should deserve at least broadly observed rating.

Responsibility C (Disclosure of policies with respect to FMIs)

- The assessment of Responsibility C does not seem to properly reflect the information that the BOK is currently releasing in English. The BOK's oversight policies and procedures are already set out in detail in English, through its regulations and annual report on payment and settlement.

THE FINANCIAL SERVICES COMMISSION'S RESPONSE TO THE ASSESSMENT**The FSC regulates and supervises FMIs in accordance with PFMIIs.**

79. FMIs such as KRX and KSD are regulated and supervised by the FSC in accordance with the FISCMA and its subordinate laws and regulations which have been adapted to reflect PFMIIs. The FSC delegates examination duties to the FSS which examines the KRX and KSD on their compliance with the PFMIIs.

- The FISCMA stipulates the legal basis of the duties, corporate governance and etc. of the KRX and KSD.
- The KRX is the clearing and settlement institution for securities and derivatives which operates in accordance with the FISCMA as approved by the FSC.
- The KSD is the settlement institution for securities which conducts deposit and settlement business in accordance with Regulation on Settlement Business approved by the FSC.
- The FISCMA provides for governance of the KRX and KSD including qualifications of senior executives and board of directors.
- The KRX accumulates and deposits Joint Compensation Fund and margins, makes repayment for defaulted members and determines repayment order to ensure stability and integrity of transactions.
- The KSD is the central depository institution that conducts business in accordance with the Regulation on Depository Business to minimize risks related to deposits and transfers of securities.
- The FSC regulates, supervises and is reported by the KRX and KSD on their operations.

80. The FSC and the BOK closely cooperate with each other based on the legal and institutional framework.

- The Senior Deputy Governor of the BOK is a member of the commissioners of the FSC pursuant to article 4 of the Establishment Act whereas the vice-chairman of the FSC may be present and speak at the Monetary Board in accordance with article 91 of the BOK Act. These enable both institutions to participate in important decision making processes undertaken by each institution.

- The FSC, FSS, MoSF, and BOK hold Macroeconomic Financial Meeting both on a regular (at least once every quarter) and irregular basis to analyze and review macroeconomic soundness through information sharing and close cooperation based on the provisions of the Regulation on the Establishment and Operations of Macroeconomic Financial Meeting (Presidential Directive).

81. In addition, the FSC and the BOK closely cooperate with each other at working level based on the MOU.

82. The KRX and KSD are providing information requested by the BOK in accordance with the BOK Act, FISCMA and FSC-BOK MOU.

83. The FSC and BOK are closely working together to meet the international standards and enhance stability of the clearing, payment and settlement system through the arrangement of Advancement Committee for the Financial Market Infrastructure.

- The FSC and BOK established Advancement Committee for Financial Market Infrastructure for the purpose of sharing expertise and information on payment and settlement.
- During the Committee held in March 2013, both organizations shared and reviewed self assessment reports produced by the FMIs including the BOK, exchange and KSD.

84. Although the two organizations closely cooperate, it is clearly stipulated in the FISCMA that the FSC has the authority to supervise the KRX and KSD. Therefore, there is hardly any overlap in the supervision authority on both FMIs.

- The FSC supervises and may impose sanctions on the overall work of the KRX and KSD including the payment and settlement system in accordance with the articles 306–307 and 410–411 of the FISCMA.
- The BOK conducts oversight and may request the operating institution or its supervisory agency to improve the operating standards in accordance with the article 81 of the BOK Act.

85. Finally, the FSC and FSS both disclose relevant laws, regulations, systems, policies and detailed materials on their web-sites (FSC: www.fsc.go.kr, FSS: www.fss.or.kr).

IOSCO OBJECTIVES AND PRINCIPLES OF SECURITIES REGULATIONS

A. Introduction

86. This assessment of the current state of the implementation of the IOSCO Objectives and Principles of Securities Regulations in the Republic of Korea has been completed by Ms. Eija Holttinen, Financial Supervision and Regulation Division, Monetary and Capital Markets Department (IMF) and Andrea Corcoran (External Expert, World Bank) as part of the work of the Financial Sector Assessment Program (FSAP) mission that visited the Republic of

Korea in April, and July 2013. The previous IOSCO assessment of Korea was conducted in 2001-02 before the first IOSCO Assessment Methodology had been developed. From the perspective of the IOSCO Principles, this is therefore effectively a first assessment. Hence, comparisons with the prior assessment are discouraged since the process has since been refined to promote consistency and has become progressively more rigorous.

87. The Korean authorities have made significant progress since the last FSAP in revising the securities regulatory framework, with the current framework achieving good overall compliance with the International Organization of Securities Commissions (IOSCO) Principles. Importantly, the earlier legal impediments to international cooperation and exchange of information have been removed. Since 2011, Korea also applies the Korean International Financial Reporting Standards (K-IFRS) that follow the International Financial Reporting Standards (IFRS).

88. Although the regulators' responsibilities are defined in legislation, the complexity of the structure obscures the transparency of the decision-making processes. The responsibility for deciding on a particular supervisory or enforcement action can lie either at the Financial Services Commission (FSC), Securities and Futures Commission (SFC), or Financial Supervisory Service (FSS), depending on the nature and gravity of action, but it is not always clear which one of them is ultimately in charge. The process is further complicated by the use of pre-deliberation committees at various levels. Self-regulatory organizations—the Korea Exchange (KRX), the Korea Financial Investment Association (KOFIA) and the Korean Institute of Certified Public Accountants (KICPA)—also play a role in the regulatory and supervisory processes. Publication of additional information on the decision-making structure and processes would be beneficial.

89. Operational cooperation and coordination between the various authorities is currently addressed by having the agencies represented in each others' decision-making bodies. However, the full participation of the Minister of Strategy and Finance at the FSC Board has the potential of compromising the independence of the FSC's supervisory and enforcement decisions. Consideration should be given on how best to mitigate the potential for undue political influence arising from such governance arrangements by, for example, restricting the participation of the Minister of Strategy and Finance in the supervisory and enforcement decisions. Attention should also be paid to ensuring that the various arrangements for gathering commercial input provide for equal and transparent treatment of market participants.

90. The authorities have a broad set of powers, most of which are used effectively. The on-site examination program could be expanded to ensure sufficient coverage of smaller entities, in particular asset management companies and auditors. Improved oversight of small auditors is important to address challenges in enforcing compliance with the auditor independence and quality control requirements. The on-site inspections should also continue to focus on ensuring proper handling of customer securities and funds.

91. Despite recent improvements announced or taken by the authorities, challenges remain in enforcing compliance with the unfair trading/market abuse provisions of the Financial Investment Services and Capital Markets Act (FSCMA). This is primarily due to the lack of sufficiently dissuasive administrative sanctions and the length and less than optimal outcome of the criminal enforcement process. Jointly with the public prosecutor's office, the authorities should

continue to seek ways to improve both the administrative and criminal enforcement powers and processes.

92. Comprehensive disclosure requirements apply to both issuers and collective investment schemes (CIS). Applicable rules prescribe the content of primary market, periodic and ongoing disclosures. While their prescriptive nature ensures compliance with the IOSCO Principles, the authorities are encouraged to monitor whether the current ongoing disclosure requirements for issuers continue to best serve the interests of investors and market evolution while maintaining a manageable compliance burden. Given the risks arising to investors from any shortcomings in CIS custody and valuation, it is important to focus on monitoring compliance and require the use of market or fair value for all CIS.

93. The current processes to monitor systemic risk do not appear to sufficiently acknowledge the potential for systemic risk arising from the securities sector. This combined with certain deficiencies in the regulators' arrangements to manage defaults could negatively impact their ability to deal with market disruptions and institutional failures.

94. The assessment was made based on the IOSCO Principles approved in 2010 and the Assessment Methodology adopted in 2011. As has been the standard practice, Principle 38 was not assessed due to the existence of separate standards for securities settlement systems and central counterparties.

95. The IOSCO Assessment Methodology requires that assessors not only look at the legal and regulatory framework in place, but also at how it has been implemented in practice. The ongoing global financial crisis has reinforced the need for assessors to make a judgment about supervisory and other operational practices and to determine whether they are sufficiently effective. Among other things, such a judgment involves a review of the inspection programs for different types of supervised entities, the cycle, scope and quality of inspections, as well as how the relevant authorities follow up on findings, including by using enforcement actions.

96. The assessment was based on: (i) a self-assessment and additional written responses prepared by the authorities; (ii) reviews of the relevant legislation and regulations; (iii) meetings with the management and staff of the FSC, SFC, FSS, Ministry of Strategy and Finance (MOSF), Bank of Korea (BOK), Seoul Central District Public Prosecutor's Office; and (iv) meetings with SROs and market participants, including the KRX, Korea Securities Depository (KSD), KOFIA, KICPA, Korean Chamber of Commerce and Industry, banks, securities companies, fund managers, issuers, credit rating agencies, audit firms and local lawyers specialized in securities markets law.

97. The assessors want to thank the Korean authorities and market participants for their cooperation and willingness to share information during the mission. In particular, the FSC's and FSS's patience in responding to the numerous follow-up queries after the mission was highly appreciated. Our particular thanks go to the translators, without whose assistance it would not have been possible to complete this report.

B. Institutional and Market Structure—Overview

REGULATORY STRUCTURE

98. The Korean securities regulatory and supervisory structure is comprised of three main agencies established by the Act on the Establishment of the Financial Services Commission (AEFSC). The FSC is responsible for setting financial and supervisory policy across all financial institutions and markets in Korea. The SFC established under the FSC deals with matters related to unfair trading on the capital markets and accounting and auditing. The FSS conducts the supervision, inspection and investigation of financial institutions under the guidance and supervision of the FSC or SFC. In addition to these three regulatory and supervisory agencies, the MOSF, the BOK and its Monetary Policy Committee (MPC), and the Korea Deposit Insurance Corporation (KDIC) play significant roles in the Korean financial system. The Fair Trade Commission (FTC) also has the ability to review the terms of certain financial contracts and to bring actions related to anti-competitive activities, including manipulation.

99. The overall structure for the supervision of financial markets, institutions and products is that of an integrated regulator/supervisor with internal functional diversification.

Supervision of all financial institutions, including banks, insurance companies, financial investment business entities (which include securities companies, fund management companies, investment advisors, discretionary portfolio managers, and managers of trusts) and other entities such as operators of securities and derivatives markets, mutual savings banks, and other non-bank financial institutions is executed from within separate departments of the FSS. Various arrangements are used to promote collaboration on overall policies and information exchange.

100. The core regulatory and supervisory function is located within the FSC, which acts like a Board with a Secretariat and has staff devoted to policy issuance and supervision, whereas the SFC and FSS have prescribed roles in effectuating this policy operationally. The FSC is a governmental agency with Ministerial/Cabinet level status and 287 staff, of which about 20 are in the Capital Markets Bureau. The FSC oversees the FSS, which is a publicly chartered private corporation with an Executive Director/CEO (the FSS Governor). The FSS has approximately 1,750 employees of which about 23 percent (404) are dedicated to capital markets issues. The FSS has an independent budget that is funded through statutorily permitted fees and by a constant contribution of the BOK. The SFC, within the FSC, has a separate Board but no staff or secretariat of its own and relies on access to staff from the FSC as needed to fulfill its individual mandate.

101. The relevant authorities have multiple interlocking governance and coordination arrangements. For example, the Vice Chairperson of the FSC serves as chairperson of the SFC and the Governor of the FSS serves on the board of the FSC. The Vice Minister of the MOSF, the President of the KDIC and the Senior Deputy Governor of the BOK are by law ex-officio commissioners of the FSC with full voting rights, including on supervisory and sanctioning decisions. The Vice Chair of the FSC, the Vice Minister of the MOSF and the Senior Deputy Governor of the BOK are members of the Deposit Insurance Committee of the KDIC. The following chart illustrates the agencies and some of the inter-locking arrangements among them.

Table 9. Governance Arrangements of the Korean Authorities

Name	MOSF	BOK	FSC	FSS	FSC-SFC	KDIC	OTHERS
Macroeconomic Financial Meeting	CHAIR: Vice Minister	Senior Deputy Governor	Vice Chair	Senior Deputy Governor	-	Vice President	-
Bank of Korea (Monetary Policy Committee)	Vice Minister (non-voting member)	CHAIR: Governor; and Sr. Deputy Governor	Vice Chair (non-voting member)	-	-	-	Five other members (one member each recommended by BOK, MOSF, FSC, Korea Chamber of Commerce & Industry, and Korea Federation of Banks)
Financial Services Commission	Vice Minister	Senior Deputy Governor	CHAIR: FSC Chairman; and FSC Vice Chair	Governor	-	President	Three external members including one member recommended by Chamber of Commerce
FSC-SFC	-	-	-	-	Chair: FSC Vice Chairman	-	One Standing commissioner and three non standing commissioners
Deposit Insurance Committee	Vice Minister	Senior Deputy Governor	Vice Chair	-	-	CHAIR: President	Three external members
Financial Supervisory Services	-	-	-	CHAIR: Gov., Sr. Dep. Gov.	-	-	-

102. Multiple laws govern the legal framework for regulation and supervision of the capital markets. These include:

- AEFSC and related Enforcement Decree;
- FSCMA and related Enforcement Decree;
- Act on the External Audit of Stock Companies and related Enforcement Decree;
- Certified Public Accountant Act (CPA Act) and related Enforcement Decree;
- Use and Protection of Credit Information Act and related Enforcement Decree;
- Act on Real Name Financial Transactions and Confidentiality and related Enforcement Decree;
- Administrative Procedure Act (APA);
- Framework Act on Administrative Regulations;

- Commercial Act;
- Government Organization Act (GOA);
- Act on Debt Rehabilitation and Bankruptcy; and
- Act on the Structural Improvement of the Financial Industry.

MARKET STRUCTURE

103. Korea has one exchange (Korea Exchange, KRX) into which three markets, the Korea Stock Exchange (securities), the Korean Securities Dealers Automated Quotations (KOSDAQ) Stock Market (smaller cap securities), and the Korea Futures Exchange (KOFEX) (futures), were combined in 2005. The KRX acts as the central counterparty (CCP) for the exchange-traded securities and futures markets. The Korea Securities Depository (KSD) is the central securities depository. The KRX has links with the Chicago Mercantile Exchange (CME) and Eurex for night trading of futures and options. The KRX has one of the largest markets in the world, with 1,788 listings, and a market capitalization of USD 1,179.4 billion. It trades the world's most traded futures contract, the Korea Composite Stock Price Index (KOSPI) 200, which has a daily turnover of 7.4 million contracts. The Korean market is highly volatile with more than 60 percent of trading originating with retail investors and another 20 percent from foreign investors with little institutional participation. The KRX has recently (June 2013) announced the addition of a new platform Korea New Exchange (KONEX), which will specialize in small and medium enterprises.

Figure 1. Korea Exchange Composite Index Values

Source: Korea Exchange.

Table 10. Korea Exchange Equity and Bond Business

	2009	2010	2011	2012
Number of Listed Companies	1,788	1,798	1,816	1,784
Market Capitalization, USD Billions	834.6	1,091.9	996.1	1,179.4
Market Capitalization, KRW Trillions	971.9	1,239.2	1,147.6	1,262.7
Value of Bond Trading, USD Billions	438.1	515.6	716.0	1,285.6

Source: World Federation of Exchanges.

104. A small platform for quotations in companies not listed on the KRX with a market capitalization of USD 554 million and annual trading value of USD 24 million operates under the oversight of KOFIA. KOFIA is a self-regulatory organization (SRO) with various statutory functions, including the certification of securities professionals and the pre-clearance of advertisements. Membership is not mandatory, but it is not practicable to work in the area of financial services without being a member. Alternative trading systems (ATS) or multilateral trading facilities (MTF) were not permitted at the time of the on-site visit, but the law has recently changed. A bill passed in March 2013 contemplates the creation of a CCP for OTC derivatives clearing. At the

moment the plan is that this infrastructure would operate under the auspices of the KRX. Bonds trade over-the-counter (OTC) and on the exchange.

105. The number of authorized and registered financial investment business entities and of banks and insurance companies conducting financial investment business activities as of March 31, 2013 was as follows:

Table 11. Financial Investment Business									
	Securities Companies	Future Companies	Asset Management Companies	Investment Advisory Firms	Trust Businesses	Banks	Insurers	Others	Total
Investment Brokerage Business	62	7	44	0	0	34	11	11	169
Investment Trading Business	58	7	45	0	0	48	9	2	169
Discretionary Investment Management	0	0	84	0	0	0	0	0	84
Trust Business*	21	0	0	0	11	20	5	0	57
Investment Advisory Business	39	7	62	157	0	1	0	139**	405
Source: FSS.									
Note: *As of July 2013.									
**Offshore investment advisors only.									

106. The assets under management (AUM) in the domestic collective investment schemes totaled KRW 307,592 billion at the end of 2012. The funds are primarily investment trusts, with a small proportion being investment companies. Private offerings are commonly made. The hedge fund industry in Korea remains small, with AUM of KRW 1,739 billion as of end-2012.

Table 12. Assets Under Management in Domestic Collective Investment Schemes

		Securities					Money Market Funds	Deriva- tives	Real Estate	Funds of Funds	Special Assets	Sum
	Fund Type	Stocks	Mix of Stocks	Mix of Bonds	Bonds	Sum						
Public Offering	Investment Trust	78,481	4,837	5,699	12,907	101,925	62,010	10,954	534	5,204	579	181,209
	Investment Company	1,177	108	682	0	1,968	0	372	513	0	2,229	5083
	Sum	79,659	4,945	6,381	12,907	103,894	62,010	11,327	1,048	5,204	2,808	186,293
Private Placement	Investment Trust	6,480	4,278	13,021	34,343	58,124	1,975	20,387	18,386	2,856	13,665	115,395
	Investment Company	122	90	51	0	264	0	-74	466	0	5,247	5,904
	Sum	6,602	4,369	13,073	34,343	58,389	1,975	20,312	18,852	2,856	18,913	121,299
Total	Investment Trust	84,962	9,115	18,721	47,250	160,050	63,985	31,341	18,921	8,060	14,245	296,605
	Investment Company	1,299	198	734	0	2,232	0	298	979	0	7,476	10,987
	Sum	86,262	9,314	19,455	47,250	162,282	63,985	31,640	19,901	8,060	21,721	307,592

Source: FSC/FSS.

C. Preconditions for Effective Securities Regulation

107. Korea is a civil law jurisdiction which has drawn its financial services legislation from multiple models including the United Kingdom, the United States, the European Union and others. The law is highly detailed and comprises thousands of pages of text. Korea has an independent judiciary and the prosecutors are officers of the courts. Korea has made a significant effort to benchmark its financial sector framework against international standards and to implement international accounting and auditing standards. Its insolvency law supports finality of settlement, the protection of customer funds held by securities brokers, and close out netting procedures. Its commercial law, originally based on the German model has been updated to be more consistent with Anglo Saxon corporate governance structures and to permit the governmental agencies implementing capital markets law some scope to interpret their primary legislation. There are some residual legal issues relative to the integrity of pledged collateral in indirect holding systems. Uniquely the deposit protection scheme and the resolution arrangements are extended to all financial institutions covered by the financial supervisory architecture, including not just deposit taking banks but also investment brokers and traders. The Korean system makes use of self-regulatory organizations that are themselves empowered by statutes, and to whom delegations of various functions related to financial services regulation are made in a transparent manner. The judicial system is observed to be fair, although the amount of prosecutorial resources available for combating financial crime is limited and may retard prosecuting financial crimes.

D. Main Findings

108. Principles for the regulator: The Korean regulatory structure is intended to permit an integrated approach to supervision, while maintaining functional expertise, and to enhance the

capacity of the securities regulator to issue binding guidance. Nonetheless, the operational structure and the procedural allocation of responsibilities are so complex that individual mandates seem unclear and the overall system lacks operational transparency. The interlocking governance structures, particularly through the voting participation of the Minister of Strategy and Finance in supervisory and enforcement decisions, can at least be perceived to compromise independence. There may also be structural impediments to maximizing the use of existing resources, especially because the SFC does not have its own staff. Effort should continue to be dedicated to refining the cooperative protocols among domestic authorities. The procedures for consultation could be improved by providing a feedback statement and increasing the transparency of the Regulatory Reform Committee's (RRC) decision-making processes. Communication of restrictions on personal trading and the monitoring for compliance should be enhanced. Despite cross-agency arrangements for identifying and mitigating potential systemic risks, the possibility for risks to arise from the capital markets seems underweighted. Although there is a system for developing policy responses to emerging regulatory issues, the process for assessing perimeter risks is not documented. Prevention of conflicts of interest and misaligned incentives has been addressed in the regulatory framework.

109. Principles for self-regulation: SROs are used to augment the front line oversight of markets and certain market professionals. There is a comprehensive program by the FSC/FSS to oversee the self-regulatory responsibilities of each of the statutory SROs. This includes approval of rules and processes, receipt of notifications of SRO activities, including sanctions, dispute resolution results, and business reports, and on-site and off-site reviews.

110. Principles for enforcement: The FSS, together with the SROs, has sufficient inspection, investigation and surveillance powers vis-à-vis regulated entities. Its on-site examination program is largely based on periodic and thematic examinations, with some elements of a risk-based approach. The program is relatively robust with the exception of limited examinations of certain types of smaller regulated entities. The FSS, FSC and SFC jointly have a broad set of investigative powers that are however currently not fully utilized, leading to the need for the public prosecutor's office to be largely in charge of the investigative process after a referral by the SFC or FSC. The three authorities can impose a range of administrative sanctions, but their power to impose pecuniary administrative sanctions is limited to certain violations. The maximum amounts for civil money penalties and administrative fines are low. The enforcement process appears to take a relatively long time. Numerous administrative measures have been taken, subject to the limitations on the types of sanctions available. Available evidence suggests that the criminal process has not necessarily led to a credible use of the range of sanctions available.

111. Principles for cooperation: The FSC and FSS have sufficient authority to share information with their domestic and foreign counterparts without a need for any external approvals. They are signatories to the IOSCO MMoU, a number of bilateral MoUs with their foreign counterparts, and a domestic MMoU on macroprudential cooperation and exchange of financial information. In practice, they have provided timely assistance to a number of requests for assistance.

112. Principles for issuers: The regulatory framework includes comprehensive and sufficiently timely primary market, periodic and material event disclosure requirements for issuers of listed and publicly offered securities. Relevant accountability provisions and enforcement mechanisms are in place. Derogations from disclosure obligations are clearly defined. The basic rights of shareholders are addressed in the Korean regulatory framework. Acquisitions of large shareholdings are required to be disclosed. Obligation to make a public tender offer and prepare a public tender statement and prospectus applies to those that intend to acquire at least 5 percent of the equity securities of a company. All listed corporations are required to prepare their financial statements according to the K-IFRS that are fully in line with the IFRS, and attach them to the registration statements and annual business reports. The Korea Accounting Institute (KAI)/Korea Accounting Standards Board (KASB) has been entrusted with the duty to set and interpret the K-IFRS, whereas compliance with them is supervised by the FSS and KICPA, with enforcement measures taken by them or by the SFC or FSC in more serious cases.

113. Principles for auditors, credit rating agencies and other information service providers.

The FSS and KICPA share the responsibility for the oversight of audit reports and auditors. Their oversight programs are based on the sampling of audit reports and periodic on-site visits to audit firms and teams, with smaller entities subject to less frequent visits. Despite the active use of enforcement measures, non-compliance by audit firms remains a challenge, leading to a recent legislative proposal to strengthen quality control requirements for the audit firms of listed companies and financial institutions. Relevant auditor independence requirements and the obligation to apply the Korean Standards on Auditing (KSAs) are in place, but in practice non-compliance by some auditors has been a concern. The KSAs will be fully aligned with the revised International Standards on Auditing (ISAs) in the beginning of 2014. Credit rating agencies are required to be authorized, and are subject to a regular on-site examination program and periodic reporting requirements. The IOSCO CRA Code of Conduct requirements have been fully implemented. The FSC has rules in place to prevent conflicts of interest by sell-side analysts that follow IOSCO guidance and are in the vanguard in applying oversight to all types of evaluators, in the manner of CRAs. Nonetheless, the pricing by bond pricing agencies should be kept under review as guidance on benchmarks for pricing evolves.

114. Principles for collective investment schemes: CIS can be provided in various legal forms, although in practice publicly offered funds are either investment trusts or investment companies. All CIS operators and those that market or distribute CIS are required to be authorized and are subject to a full range of conduct of business, organizational and reporting requirements. The on-site examination program of the FSS does not provide sufficient coverage of the small CIS operators. Custodians are subject to limited examinations in relation to their role as CIS custodians. The assets of a CIS have to be properly segregated, and related party custody is forbidden in the FSCMA, but sufficient evidence was not available to conclude that compliance with this prohibition is effectively monitored and enforced. A potential investor in a CIS has to be provided with an investment prospectus that is analogous with the registration statement reviewed by the FSS. The requirements on advertizing, periodic and ongoing reporting, disclosure of investment strategy, valuation of CIS assets, and subscription and redemption of CIS securities are largely appropriate. However, money

market fund assets are valued at book value. Pricing errors above a certain level have to be disclosed, but compensating investors that have suffered from an error is based on market practice rather than an obligation. Hedge funds can be offered only as private placements to qualified investors, but operating a hedge fund requires the same authorization as operating a regular CIS. Hedge funds are exempted from the FSCMA audit requirements, and the FSS has not yet conducted any on-site examinations on them.

115. Principles for market intermediaries: The Korean authorities have comprehensive rules for licensing intermediaries, which include the vetting of principals, including major shareholders. Ongoing supervision uses detailed examination guides that combine actively followed compliance and risk-based regimes, as well as appropriate early warning information reporting. Steps should be taken to further document contingency arrangements, and risk basing would be enhanced by designing supervisory models that give more weight to intra-group exposures. Additionally, care should be taken to assure that forbearance with respect to compliance with capital requirements does not lead to the accrual of unmanageable risks.

116. Principles for secondary markets: The KRX is a participant utility with a monopoly in exchange trading. It has multiple programs to control risk, including short interest reporting procedures, individual price limits, circuit breakers, and the power to isolate failures through the transfer of positions. Disclosure of more information on the use of these provisions would be useful. According to the authorities, OTC activity is limited and is subject to reporting consistent with international standards. However, the actual amount may not be readily measurable and the level of enforcement of reporting requirements is difficult to substantiate. The exchange plays an active front line role in the oversight of the markets, with real time surveillance and active surveillance staff. More information on the delineation of events of default and corresponding resources for completing settlement should be readily available to the market at large as well as to clearing participants. International benchmarks with respect to pre- and post-trade transparency of various transaction types and valuation of illiquid securities by pricing agencies should be kept under review.

Table 13. Summary Implementation of the IOSCO Principles—Detailed Assessments

Principle	Findings
Principle 1. The responsibilities of the Regulator should be clear and objectively stated.	The regulatory mandates of the FSC, SFC and FSS are defined in the AEFSC and in procedural legislation applicable to government organizations and administrative activity, such as the Government Organization Act. The decision-making processes within the authorities involve multiple steps. The operational processes for fulfilling the defined mandates and accountability within and among the various structures are hence virtually impenetrable. The FSCMA is intended to apply to all financial institutions and activities, with functional specialization within the supervisory program. Although all financial investment business must be conducted within an authorized or registered entity, more accessible information on the business conduct requirements for insurance investment products is desirable. The law explicitly requires the BOK, KDIC, FSS and FSC to exchange supervisory information and to conduct joint inspections. However, no additional implementation protocol on decision-making responsibilities beyond an MoU on sharing periodic and ad information exists.

Table 13. Summary Implementation of the IOSCO Principles—Detailed Assessments

Principle	Findings
Principle 2. The Regulator should be operationally independent and accountable in the exercise of its functions and powers.	The Minister's participation in the FSC Board is intended to ensure coordination and introduce appropriate checks and balances. However, this arrangement has the potential to jeopardize the regulators' independence. There are appropriate procedures and criteria for the appointment and removal of the FSC and SFC Chair and Commissioners, but as part of the Cabinet the FSC Chair typically resigns when the government changes. The process by which the RRC can require the revision of secondary legislation proposed by the FSC is not transparent and RRC decisions must be followed by the FSC. Potentially, the RRC process also could limit the FSC's regulatory independence.
Principle 3. The Regulator should have adequate powers, proper resources and the capacity to perform its functions and exercise its powers.	The FSC, SFC, and FSS have a broad complement of powers; including powers to take administrative enforcement actions (see Principle 11 for gaps in the enforcement powers). Although they have different funding structures, both the FSC and FSS are adequately funded to undertake their current activities. However, the staff and IT resources dedicated to the capital markets are limited, even taking into consideration the use of self-regulatory resources to augment those of the regulator. The SFC relies on the FSS resources to investigate market abuses, and the technology for oversight of trading activity by the regulator is limited.
Principle 4. The Regulator should adopt clear and consistent regulatory processes.	The FSC, FSS, SFC and the other authorities have well-documented processes, which must be followed to propose, adopt and implement rules and operations. The DART system keeps an electronic record of all required filings and these are accessible to the general public. There is a consultation process, which however does not necessarily result in a feedback statement. The decision making process of the RRC is not transparent (see Principle 2). The informal committee system, while informative and useful in keeping the authorities abreast of market developments, may also leave some stakeholders less well represented than others, thus making a feedback statement particularly valuable. Administrative decisions that affect individuals must be in writing and provide reasons. There is also an opportunity for persons subject to investigation to be heard. Interpretations of general applicability must be made public.
Principle 5. The staff of the Regulator should observe the highest professional standards, including appropriate standards of confidentiality.	Commissioners and staff of the regulators are subject to a duty of loyalty and confidentiality and are required to avoid conflicts of interest or to disclose them. The staff is subject to a written Code of Conduct and can be subject to disciplinary action for unprofessional conduct. Although guidance exists, there was substantial confusion among staff as to the scope of applicable securities trading restrictions and related requirements. Despite reporting requirements, no program for active ongoing monitoring of compliance with securities holding and trading rules exists. Whistle blowers are granted anonymity.
Principle 6. The Regulator should have or contribute to a process to monitor, mitigate and manage systemic risk, appropriate to its mandate.	The Korean authorities (MOSF, BOK, KDIC, and FSC) cooperate through the Macroeconomy and Finance Meeting to consider the emergence of potential risks, the channels for risk transmission and the impact of macro-prudential matters on financial stability and the real economy. Work has advanced on developing what information should be readily available and exchanged. Although some steps have been taken to address the potential systemic risk arising from market intermediaries, the prevailing view does not sufficiently acknowledge that systemic risks can originate from the securities sector. In the bottom-up process, the FSS uses various mechanisms to identify risks within the financial system, but its existing processes are extremely siloed considering the number of large, integrated financial groups and the potential benefits of integrated regulation.

Table 13. Summary Implementation of the IOSCO Principles—Detailed Assessments

Principle	Findings
Principle 7. The Regulator should have or contribute to a process to review the perimeter of regulation regularly.	The FSC and FSS have a bottom-up process to identify emerging problems and market evolutions that require regulatory/supervisory attention through periodic industry self-assessments and review of information from complaints and various advisory committees. The FSS also conducts thematic and ad hoc inspections based on emergent issues that can feed into the policy formation process for policing the perimeter. However functional silos prevent full use of the potential synergies that could be applied to perimeter review within an integrated authority. Further, the current process is not documented either as to how its results are disseminated within the FSS and among the relevant authorities, or as to how the review should affect policy making.
Principle 8. The Regulator should seek to ensure that conflicts of interest and misalignment of incentives are avoided, eliminated, disclosed or otherwise managed.	As a condition of authorization, each financial investment business entity must have a system for prevention and management of conflicts of interest that needs to be tested and updated from time to time. The Korean business conduct rules directly address conflicts of interest that could result from misaligned incentives relative to the underwriting/offer of new issues. These rules preclude contingent compensation related to sales, and provide requirements for CRAs and other evaluators as to required independence of judgment and to integrity of the evaluative methodologies used (see Principles 20, 22 and 23). Internal conflict prevention processes of regulated entities are reviewed internally by compliance personnel and as part of on-site monitoring.
Principle 9. Where the regulatory system makes use of Self-Regulatory Organizations (SROs) that exercise some direct oversight responsibility for their respective areas of competence, such SROs should be subject to the oversight of the Regulator and should observe standards of fairness and confidentiality when exercising powers and delegated responsibilities.	The FSS has a comprehensive program to oversee the self-regulatory responsibilities of each of the SROs. This includes approval of rules and processes, receipt of notifications of SRO activities, including sanctions, dispute resolution results, and business reports, and on-site and off-site reviews. The FTC may also review certain SRO practices or contracts. The KRX is currently effectively a monopoly for profit mutual company. Access to trading must be through an authorized broker. The Principles on Secondary Markets address some issues relative to adequate availability of certain SRO rules.
Principle 10. The Regulator should have comprehensive inspection, investigation and surveillance powers.	The FSS has sufficient inspection, investigation and surveillance powers vis-à-vis regulated entities, either directly or through delegation to the SROs (see Principle 9). The primary responsibility for market surveillance lies with the KRX. The regulatory framework includes detailed record-keeping requirements for regulated entities.
Principle 11. The Regulator should have comprehensive enforcement powers.	The FSS, SFC and FSC jointly have a broad set of investigative powers that are however currently not fully utilized. They can also impose a range of administrative sanctions, but their power to impose pecuniary administrative sanctions is limited to certain violations. The maximum amounts for civil money penalties and administrative fines are low. The SFC and FSC can refer matters for criminal prosecution. The public prosecutor's office can use all its investigative powers in suspected criminal violations of the FSCMA and other securities markets related acts, and the FSS, SFC and FSC can share information with it.
Principle 12. The regulatory system should ensure an effective and credible use of inspection, investigation, surveillance and enforcement powers and implementation of an effective compliance program.	The FSS examination program is largely based on periodic and thematic examinations, with the examination plan of financial investment business entities incorporating a more risk-based approach. The on-site examination program is relatively robust with the exception of smaller collective investment business entities and audit firms/teams, which are subject to less frequent examinations. The investigative and enforcement process has taken a relatively long time, and the authorities reported that they are not using all the existing investigative powers due to resource constraints. Numerous administrative measures have been taken primarily in relation to regulated entities and their executives and

Table 13. Summary Implementation of the IOSCO Principles—Detailed Assessments

Principle	Findings
	employees, subject to the limitations on the types of sanctions available. The unfair trading investigations and enforcement rely on the criminal process. Limited information was available to assess the effectiveness of the criminal enforcement process, but that gathered indicates that the sanctions available have not been optimally utilized.
Principle 13. The Regulator should have authority to share both public and non-public information with domestic and foreign counterparts.	Within the scope of their respective mandates, the FSC and FSS have the authority to share both public and non-public information with their domestic and foreign counterparts. No external approvals are needed and information can be provided also on an unsolicited basis. There is no requirement for the conduct to constitute a breach under Korean law to enable the Korean authorities to share information with their foreign counterparts.
Principle 14. Regulators should establish information sharing mechanisms that set out when and how they will share both public and non-public information with their domestic and foreign counterparts.	The FSC and FSS are signatories to the IOSCO MMoU and to a domestic MMoU on macroprudential cooperation and exchange of financial information (see Principle 6). In practice, they have provided timely assistance to a number of requests for assistance.
Principle 15. The regulatory system should allow for assistance to be provided to foreign Regulators who need to make inquiries in the discharge of their functions and exercise of their powers.	The FSC and FSS are signatories to the IOSCO MMoU and can provide assistance to foreign regulators under it and other MoUs that they have signed.
Principle 16. There should be full, accurate and timely disclosure of financial results, risk and other information that is material to investors' decisions.	The regulatory framework includes comprehensive primary market, periodic and material event disclosure requirements for issuers of listed and publicly offered securities. Some requirements, in particular those for material event disclosures, are very prescriptive. The timeliness of disclosures complies with IOSCO minimum requirements, even though the following day deadline for material event disclosures is late compared to international best practice. Relevant accountability provisions and enforcement mechanisms are in place. Derogations from disclosure obligations are clearly defined.
Principle 17. Holders of securities in a company should be treated in a fair and equitable manner.	The basic rights of shareholders are addressed in the Korean regulatory framework. Acquisitions of large shareholdings are required to be disclosed. Obligation to make a public tender offer applies to those that intend to acquire at least 5 percent of the equity securities of a company. In such cases, a public tender statement and prospectus have to be published.
Principle 18. Accounting standards used by issuers to prepare financial statements should be of a high and internationally acceptable quality.	Audited financial statements are required to be attached to the registration statements and annual business reports. All stock-listed corporations are required to prepare their financial statements according to the K-IFRS that are fully in line with the IFRS. Companies that have issued fixed income securities or whose stocks are not listed can use Korean GAAP. The KAI/KASB has been entrusted with the duty to set and interpret the K-IFRS, whereas compliance with them is supervised by the FSS and KICPA, with enforcement measures taken primarily by the SFC or FSC. There have been cases of accounting fraud, and the related enforcement challenges are addressed in Principles 19 and 20.
Principle 19. Auditors should be subject to adequate levels of oversight.	The FSS and KICPA have been assigned with the responsibility for the oversight of audit reports and auditors in Korea. The former is in charge of the review of audit reports of all stock-listed corporations and oversight of the largest audit firms. Both the FSS and KICPA have implemented an oversight program based on the sampling of audit reports and periodic on-site visits to audit firms and teams

Table 13. Summary Implementation of the IOSCO Principles—Detailed Assessments

Principle	Findings
	to assess the implementation of relevant auditing, independence and quality control requirements. Smaller firms and teams are subject to relatively infrequent visits. Despite the active use of enforcement measures, non-compliance by auditors remains a challenge. Due to this, quality control requirements for the audit firms of listed companies and financial institutions are in the process of being strengthened.
Principle 20. Auditors should be independent of the issuing entity that they audit.	The regulatory and self-regulatory framework in Korea sets standards on auditor independence, including restrictions on the provision of non-audit services. Rotation requirements for auditors are in place, and the nomination of an auditor requires the approval of the audit committee. In practice, there have been violations of the independence requirements, which might reflect the need to strengthen oversight and enforcement.
Principle 21. Audit standards should be of a high and internationally acceptable quality.	Audits in Korea have to be conducted in line with the KSAs set by the Korea Auditing and Assurance Standards Board (KAASB). They are currently not fully in line with the ISAs, but will become so in the beginning of 2014. The KAASB follows an open and transparent process in standard setting, and the standards are subject to the approval of the FSC. There has been a significant amount of enforcement cases against violations of the auditing standards.
Principle 22. Credit rating agencies should be subject to adequate levels of oversight. . The regulatory system should ensure that credit rating agencies whose ratings are used for regulatory purposes are subject to registration and ongoing supervision.	Credit rating agencies are required to be authorized for credit information business. They are subject to a regular on-site examination program and periodic reporting requirements. The IOSCO Code requirements have been implemented.
Principle 23. Other entities that offer investors analytical or evaluative services should be subject to oversight and regulation appropriate to the impact their activities have on the market or the degree to which the regulatory system relies on them.	The FSC and FSS have regulations and processes intended to prevent conflicts of interest between sell side analysts and the broker that follow IOSCO guidelines. These prohibit conduct inconsistent with a duty of loyalty to a particular customer and the company investor base overall. The FSC and FSS are in the vanguard in introducing comparable oversight to that advocated for CRAs to all evaluators used by their regulatory system for valuation services.
Principle 24. The regulatory system should set standards for the eligibility, governance, organization and operational conduct of those who wish to market or operate a collective investment scheme.	All CIS operators are required to be authorized for collective investment business and are subject to a full range of conduct of business and organizational requirements. The authorization requirement also applies to those that market or distribute CIS and to operators of privately placed funds. The on-site examination program of the FSS does not provide sufficient coverage of the small CIS operators. Custodians are subject to limited examinations focusing on their specific responsibilities as CIS custodians (see Principle 25). Periodic and ongoing reporting requirements apply. Delegation is subject to comprehensive regulatory requirements.
Principle 25. The regulatory system should provide for rules governing the legal form and structure of collective investment schemes and the segregation and protection of client assets.	CIS can be provided in various legal forms in Korea, although in practice publicly offered funds are either investment trusts or investment companies. They do not need to be registered provided that a registration statement has been approved by the FSS. The assets of a CIS have to be properly segregated, and related party custody is forbidden in the FSCMA. However, sufficient evidence was not available to conclude that compliance with this prohibition is effectively monitored and enforced.
Principle 26. Regulation	A potential investor in a CIS has to be provided with an investment prospectus that

Table 13. Summary Implementation of the IOSCO Principles—Detailed Assessments

Principle	Findings
should require disclosure, as set forth under the principles for issuers, which is necessary to evaluate the suitability of a collective investment scheme for a particular investor and the value of the investor's interest in the scheme.	that is analogous with the registration statement reviewed by the FSS. The FSS can demand a corrective registration statement to be issued in case of any false or misleading information. There are comprehensive requirements on advertizing and periodic and ongoing reporting both to investors and the FSS, and investment strategy and information on asset valuation have to be disclosed.
Principle 27. Regulation should ensure that there is a proper and disclosed basis for asset valuation and the pricing and the redemption of units in a collective investment scheme.	There are detailed regulatory requirements on the valuation of CIS assets, subscription and redemption of CIS securities, and circumstances when redemptions can be suspended. Each collective investment business entity has to set up a valuation committee responsible for valuing the CIS assets, and services of bond pricing agencies are to be used for valuing fixed income instruments. However, money market fund assets are permitted to be valued at book value, without sufficient safeguards. Pricing errors above a certain level have to be disclosed. There is no automatic obligation to compensate investors that have suffered from the error, but the market practice is that of voluntary compensation.
Principle 28. Regulation should ensure that hedge funds and/or hedge funds managers/advisers are subject to appropriate oversight.	Operating a hedge fund requires the same authorization as operating a regular CIS. Hedge funds can be offered only as private placements to qualified investors. Hedge fund operators are subject to periodic reporting requirements to the FSS, and their investor reporting obligations are based on KOFIA guidelines. Hedge funds are not required to be audited. The FSS has not yet conducted any on-site examinations of hedge funds.
Principle 29. Regulation should provide for minimum entry standards for market intermediaries.	The licensing requirements for all financial investment business entities are comprehensive and include fitness and propriety vetting for executives and large shareholders, minimum capital requirements based on the type of business units authorized, requirement for a business plan and appropriate resourcing with properly registered personnel, a facilities inspection, including IT, a requirement for internal controls, risk management and management of conflicts of interest, and a period of exposure of the application for public comment. In some cases an on-site visit is performed at the time of application, but commencement of financial investment business is not necessarily a factor that leads to an early full scope inspection. Banks and insurance companies that offer securities products must also have appropriate licenses, though some requirements relative thereto may differ from those applied to financial investment business entities.
Principle 30. There should be initial and ongoing capital and other prudential requirements for market intermediaries that reflect the risks that the intermediaries undertake.	There is a minimum initial capital requirement and an ongoing risk-based requirement calculated as a net operating capital ratio that incorporates "reserve requirements" based on the risk/quality of assets held. This requirement is supported by extensive, sometimes difficult to interpret, guidance. When firms reach an early warning level of 150 percent of the minimum amount, the FSS issues a recommendation or order for corrective action and a requirement for a financial performance improvement plan, reflective of the firm's risk rating and capital level. Capital is calculated daily and reported as of month end, within 30 days, as well as quarterly. The time frames for filing periodic capital reports and for implementing suggested corrective actions are longer than best practice within such a volatile market. In mitigation, material event reporting and early warning reports must be made immediately (see also Principle 32). Broker loans as margin are permitted to the extent of 100 percent of a broker's equity. There is limited evidence on what group risk information is available to securities companies within a group, particularly non-financial holding company groups.
Principle 31. Market intermediaries should be required to establish an	Financial investment business entities are required to have risk management, internal control and compliance functions and to establish policies and procedures related to business conduct, including order handling, documentation of accounts,

Table 13. Summary Implementation of the IOSCO Principles—Detailed Assessments

Principle	Findings
internal function that delivers compliance with standards for internal organization, and operational conduct, with the aim of protecting the interests of clients and their assets and ensuring proper management of risk, through which management of the intermediary accepts primary responsibility for these matters	and trading authority, disclosure, suitability and risk warning requirements, sales representations and practices, trading practices, and requirements for the treatment of customer funds and securities. The FSS operates a well-designed and documented examination program. The level of monitoring of order allocation and handling by brokers of customer securities and funds held by a broker as trustee or nominee, however, could not be substantiated. The KRX is not able to monitor settlement positions of individual customers in indirect holding systems.
Principle 31. Market intermediaries should be required to establish internal function that delivers compliance with standards for internal organization and operational conduct, with the aim of protecting the interests of clients and their assets and ensuring proper management of risk, through which management of the intermediary accepts primary responsibility for these matters.	Financial investment business entities are required to have risk management, internal control and compliance functions and to establish policies and procedures related to business conduct, including order handling, documentation of accounts and trading authority, disclosure, suitability and risk warning requirements, sales representations and practices, trading practices, and requirements for the treatment of customer funds and securities. The FSS operates a well-designed and documented examination program. The level of monitoring of order allocation and handling by brokers of customer securities and funds held by a broker as trustee or nominee, however, could not be substantiated. The KRX is not able to monitor settlement positions of individual customers in indirect holding systems.
Principle 32. There should be procedures for dealing with the failure of a market intermediary in order to minimize damage and loss to investors and to contain systemic risk.	The FSS uses various processes aimed at giving it an early warning of a financial investment business entity's deteriorating financial situation. The authorities have intervention powers that include the capacity to transfer accounts and other business, requirements for settlement guarantee and compensation funds, provisions for appropriate margin and margin collection, resolution procedures and deposit insurance to mitigate the potential damage and losses due to default. Information on what constitutes events of default and the resources for redress are not readily available, although there are rules and guidance in place and the KRX CPSS-IOSCO self-assessment that contains some of this information was posted in July. The authorities do not have a documented contingency plan (see also Principle 37). The period for rectifying a capital deficiency can be longer than is consistent with best practice.
Principle 33. The establishment of trading systems including securities exchanges should be subject to regulatory authorization and oversight.	The KRX was established by merging previously established exchanges as provided by law. It is a for-profit stock company primarily owned by trading members. The requirements for the establishment and organization of the operations and regulatory functions of the exchange are consistent with the IOSCO requisites for authorization related to resources, reliability of systems, surveillance capacity and other matters. Certain rules and information are insufficiently specific and accessible (see Principles 32 and 37). ATS or MTF were not operative at the time of the assessment mission, but have been permitted as of June. Trading organized by KOFIA is considered to be OTC.
Principle 34. There should be ongoing regulatory supervision of exchanges and trading systems which should aim to ensure that the integrity of trading is maintained through fair and equitable rules that strike an appropriate balance between the demands of different market participants.	The FSS conducts oversight of the exchange and the exchange system through off-site and on-site monitoring. It reviews trading on a batch, not a real time basis. It also receives reports from the exchange that operates its own real time trading surveillance program. Exchange rules are approved by the FSC, as are products in the case of structured products and derivatives. The exchange oversees the provision of continued disclosure of material price sensitive information required under its own rules.

Table 13. Summary Implementation of the IOSCO Principles—Detailed Assessments

Principle	Findings
Principle 35. Regulation should promote transparency of trading.	The KRX system provides largely sufficient pre- and post-trade information. Minimum block size and the use of volume weighted average prices for block trades are specified by rules. The block size is very small, and only the volume of block trades and not the price is reported. However, since the value of block trades is less than 1 percent of the total trading value and there is a pricing model, the impact on transparency is limited. Outside the scope of the IOSCO Principle, KOFIA Freeboard contains significant information. Prices for OTC bond trades are also to be reported within 15 minutes of execution, but enforcement is difficult as the trades are typically done by voice or messenger and reporting is related to time of settlement. For bond trades to be settled, prices must be reported as all bonds are dematerialized.
Principle 36. Regulation should be designed to detect and deter manipulation and other unfair trading practices.	The exchange rules prevent the acceptance of trades that could be for the purpose of manipulation and prohibit specific market practices, such as wash trades. Exchange staff undertake real time trade monitoring and conduct yearly inspections of all members with respect to trading practices. The exchange can bring its own actions against its members and request its members to suspend offending employees. The KRX has taken disciplinary actions in a significant number of cases, but does not make its actions systemically public. It has also referred unfair trading cases to the FSS for further investigation, so that the majority of market abuse actions by the public prosecutor's office originate from KRX referrals.
Principle 37. Regulation should aim to ensure the proper management of large exposures, default risk and market disruption.	The exchange has a broad range of requirements and arrangements to mitigate and manage default risk, market disruption, and futures, short, and other open exposures. However, the definition of events of default, the waterfall of resources to redress them, and the resources accessible to the exchange to complete settlement are not clearly described and easily accessible to the public. Further, while the KRX performs scenario testing, it is not clear how existing mitigation and recovery arrangements will be applied in practice as they have yet to be tested with respect to securities companies. The impact of the recent introduction of continuous net settlement (CNS) may achieve improvements in certainty, but the CNS and the expected introduction of CCP clearing for OTC derivatives trades will require careful ongoing monitoring and adaptation of risk management systems to meet international standards.
Principle 38. Securities settlement systems and central counterparties should be subject to regulatory and supervisory requirements that are designed to ensure that they are fair, effective and efficient and that they reduce systemic risk.	Not assessed.

Table 14. Recommended Action Plan to Improve Implementation of the IOSCO Principles

Principle	Recommended Action
Principle 1	<ul style="list-style-type: none"> The authorities should increase the transparency of their mandates and related allocation of regulatory and decision-making responsibilities by e.g. posting an organigram and related decision making flow chart on the website of each authority. The authorities should continue to augment the practical arrangements for cooperation, e.g. by a written protocol. The FSC and FSS ensure that the investor protection requirements in place for securities-related activities conducted within banking and insurance entities are transparent and readily accessible to the public.

Table 14. Recommended Action Plan to Improve Implementation of the IOSCO Principles

Principle	Recommended Action
Principle 2	<ul style="list-style-type: none"> • The FSC should exclude the MOSF representative from the administrative sanctioning process and individual supervisory decisions or at least remove his voting powers in those cases. • The FSC should identify certain financial safety and soundness and business conduct regulations that should be exempted from the RRC process, though subject to general administrative review under the APA. • The participating authorities should clarify the RRC decision-making process, when it is reviewing regulations proposed by the FSC.
Principle 3	<ul style="list-style-type: none"> • The FSC and FSS should assess whether their staffing levels in the capital markets area are sufficient. • The government should consider whether there needs to be a specific dedication of governmental resources to facilitate the execution of powers provided under the FSCMA to the SFC to combat market abuse.
Principle 4	<ul style="list-style-type: none"> • The FSC and FSS should consider providing a feedback statement on consultations (see also Principle 2 regarding the RRC process).
Principle 5	<ul style="list-style-type: none"> • The FSC and FSS should ensure timely communication of guidance on personal trading restrictions and property registration affecting staff and Commissioners/Board members. • The FSC and FSS should document their monitoring programs for compliance with the trading restrictions.
Principle 6	<ul style="list-style-type: none"> • The authorities should heighten the awareness that problems in the securities sector could precipitate runs or other problems with systemic effect. • The authorities should continue to identify with more particularity the information that should be shared among the authorities to address risks originating from each sector that could adversely affect other sectors (see also Principle 1).
Principle 7	<ul style="list-style-type: none"> • The FSC and FSS should develop a more formal top down process to review emerging risks of misconduct and products or services that do not appear to be sufficiently supervised/regulated and a related escalation process.
Principle 11	<ul style="list-style-type: none"> • The FSC, SFC and FSS should ensure credible use of their existing investigative powers. • The FSC should explore the possibility of increasing the range and level of administrative pecuniary sanctions.
Principle 12	<ul style="list-style-type: none"> • The FSS should ensure that its on-site examination program provides sufficient coverage of all supervised entities (see also Principles 19 and 24). • The FSS, SFC, FSC and the public's prosecutor's office should work jointly to aim at improving the effectiveness of the criminal enforcement process, including through increased information sharing on the outcome of the cases referred to the public prosecutor's office.
Principle 16	<ul style="list-style-type: none"> • The FSC should consider whether the current prescriptive material event disclosure regime is the most efficient and effective manner to ensure sufficient disclosure to investors. • The FSC should consider proposing a change to the deadline for material event disclosures.
Principle 19-21	<ul style="list-style-type: none"> • The FSC should pursue its plans to strengthen the quality control requirements for the audit firms that audit listed companies and financial institutions. • The FSS and KICPA should ensure that their audit oversight programs are sufficiently comprehensive and address the risks of non-compliance identified in the market. • The SFC should ensure that there is robust enforcement of the violations of the independence and quality control requirements.
Principle 24	<ul style="list-style-type: none"> • The FSS should ensure that its on-site examination program provides sufficient coverage of all collective investment business entities. • The FSS should ensure that its on-site examinations on custodians cover sufficiently their specific responsibilities as CIS custodians.
Principle 25	<ul style="list-style-type: none"> • The FSS should ensure that compliance with the prohibition of related party custody is effectively monitored and enforced.

Table 14. Recommended Action Plan to Improve Implementation of the IOSCO Principles

Principle	Recommended Action
Principle 27	<ul style="list-style-type: none"> The FSC should require the use of market or fair value also for the valuation of MMF assets as required by the IOSCO Policy Recommendations on Money Market Funds. The FSC should assess whether the regulatory framework applicable to the treatment of pricing errors is sufficient to enforce the obligation to compensate investors.
Principle 28	<ul style="list-style-type: none"> The FSC should consider the appropriateness of exempting hedge funds managers from the requirement to have the fund audited. The FSS should ensure that it launches its on-site inspection program in hedge fund managers as planned.
Principle 29	<ul style="list-style-type: none"> The FSS should consider early on-site “nursery visits” to newly licensed firms.
Principle 30	<ul style="list-style-type: none"> The FSS should consider simplifying its guidance on capital compliance. The FSS should review whether performance improvement plans related to capital deficiencies should be more expeditiously implemented (see also Principles 32 and 37).
Principle 31	<ul style="list-style-type: none"> The FSS should increase the focus of its examination activities on customer funds and order allocations, especially within brokers acting as trustees.
Principle 32	<ul style="list-style-type: none"> The authorities should document their contingency plan for addressing financial disruption and firm failures. The authorities should further document and make readily available to participants and the public the definition of events of default, existing default mitigation arrangements and the order by which available resources to redress defaults will be used by the financial investment business entity, the KRX, the KSD and any future CCP.
Principle 35	<ul style="list-style-type: none"> The FSC, FSS and KRX should consider whether the current KRX practice for reporting block trades provides sufficient information to the market. The FSC, FSS and KOFIA should consider whether further guidance (and enforcement) is necessary with respect to reporting OTC bond trades.
Principle 37	<ul style="list-style-type: none"> The authorities should request an assessment of the securities settlement system. The KRX and KSD should better describe the arrangements for the completion of settlement in the event of default, even assuming the insolvency of a clearing member, and keep the sufficiency of these arrangements under continuous review.

E. Authorities’ Response to the Assessment

117. The Korean authorities would first like to thank the IMF and the World Bank for their work on the assessment of Korea’s securities regulation and welcome the recommendations and suggestions made by the assessment team. While we are very much appreciative of this opportunity to review and enhance our supervisory and regulatory framework for the securities sector, there are certain areas in the assessment report where we do not fully agree with and thus, would like to provide further comments.

118. With respect to principle 12 on effective and credible use of inspection, investigation, surveillance and enforcement powers and implementation of an effective compliance program, the assessment report suggests that the on-site examination program is relatively robust with the exception of smaller collective investment business entities and audit firms/teams, which are subject to less frequent examinations.

119. While the Korean authorities believe sufficient time is a necessary component for ensuring sound quality of investigation and enforcement, we also highlight the authorities’

steady efforts to innovate and expedite the investigative process in an effort to minimize consumer complaints and investor harm. For instance, the Financial Services Commission (FSC), the Financial Supervisory Service (FSS) and the prosecutors' office are working together in a joint task force since May 2013 to fast-track the criminal enforcement process.

120. In the meantime, the FSC is in the process of consulting with the Ministry of Justice to introduce civil money penalty in the punishment of unfair trading cases, including market abuse, in an effort to recover unlawful gains and allow timely punishment. Introduction of civil money penalty is expected to reduce reliance on criminal procedures and provide more diversity in the enforcement process.

121. We also note that the recently revised Financial Services and Capital Markets Act (FSCMA) introduces civil money penalty to punish violations of requirements to disclose large holdings of securities. In addition to the civil money penalty, the revised FSCMA also introduces fines ranging from 100 percent up to 300 percent of the amount of unlawful gains from unfair trading to discourage such unlawful activities and recover ill-gotten gains more effectively.

122. In August 2013, the FSS has also launched a team dedicated to the management of unfair trading cases. The team works to enhance the quality and effectiveness of investigation and enforcement of unfair trading by following up and collecting information on indictment and conviction rates of the unfair trading cases that have been referred by the FSS to the prosecutors' office. In an effort to bolster information sharing, the FSC, the FSS, and the prosecutors' office have already set up a permanent consultative body for information exchange.

123. The FSS would also like to underscore our continuous effort to ensure the effectiveness of on-site examination process for smaller asset management firms. For instance, not only have we increased the number of examiners for on-site examinations by 55 percent in 2013 compared to 2012, we select timely and emerging issues for our on-site visits, such as partial examinations of newly established asset management firms. For 2014, wide-ranging factors, like exam frequency, will be considered in putting together annual examination plans. For example, small asset management firms that have never been subject to on-site examinations since inception will be subject to partial examinations in the first quarter of 2014 with a special focus on areas and issues that have been identified to be deficient during the general full-scope examination of large asset management firms.

124. In terms of the inspection of smaller audit firms, we believe supervisory risk associated with small audit firms tend to be small because of their small size and relatively small impact on the overall financial market. Thus, in order to achieve the most efficient supervision with limited resources, the FSS allocates more supervisory resources to the inspection of large accounting

firms with greater significance in investor protection. For instance, audit teams⁶ undertake audits not of large listed securities firms but mostly of small non-listed securities firms with relatively limited impact on the overall financial market. Similarly, smaller audit firms conduct audits mostly of non-listed firms.⁷ Thus, the regulatory risk stemming from smaller firms and teams is limited. On the other hand, mid and large audit firms,⁸ which audit 86 percent of listed companies have the most influence on financial markets and thus warrant the most supervisory resources.

ASSESSMENT OF INSURANCE CORE PRINCIPLES

A. Introduction

125. This assessment of the current state of the implementation of the Assessment of the Insurance Core Principles (ICP) in the Republic of Korea has been completed by Mr. Craig Thorburn (World Bank) as part of the work of the Financial Sector Assessment Program (FSAP) mission that visited the Republic of Korea in April, and July 2013. This report is an assessment of Korea's compliance with International Association of Insurance Supervisors' Insurance Core Principles (ICPs), as adopted in October 2011. The review was carried out as part of the 2013 Financial Sector Assessment Program (FSAP) assessment of Korea, and was based on the regulatory framework in place, the supervisory practices employed, and other conditions as they existed in April 2013.

126. The assessment uses the version of the IAIS Insurance Core Principles (ICPs) adopted in October 2011 and follows the prescribed methodology. The assessment is based solely on the laws, regulations, and other supervisory requirements and practices that were in place at the time of assessment. It was informed by discussions with regulators and market participants and responses to a detailed questionnaire as well as reports prepared by the IAIS in their thematic peer review processes where Korea participated. The assessor is grateful for the full cooperation extended by all.

127. The insurance supervisory system in Korea shows a high level of observance of the Insurance Core Principles (ICPs) of the International Association of Insurance Supervisors (IAIS). This high level reflects a strong commitment in Korea to international standards. The engagement of the FSC and FSS with the IAIS, the FSB and through Korea's G-20 membership has contributed positively to this commitment and the quality of implementation.

128. The regulatory structure, although complex, is well developed compared to international norms. The authorities have implemented IFRS accounting standards, updated the

⁶ Audit teams together audit 15 percent of all companies subject to external audits and the quality of audit conducted by audit teams is inspected by the KICPA.

⁷ Only 14 percent of total listed firms are audited by small audit firms and the quality of audit performed by small audit firms are also inspected by the KICPA.

⁸ Audit quality inspection for mid- and large audit firms are directly conducted by the FSS.

capital regime to a sophisticated risk based capital approach, and many other regulatory requirements in a proactive and timely manner. Limited weaknesses in the regulatory structure are well understood by the authorities and can be expected to be addressed.

129. Compared to the previous FSAP, reforms have been made that are now proactive to achieve best practices rather than remedial in response to the financial crisis of the late 1990s.

Supervisory developments also reflect some significant strength. The authorities have developed a solid risk assessment application system (RAAS). Attention to insurance fraud, particularly through the use of a centralized database, is impressive.

130. The insurance sector in Korea has long been one of the most significant in the world in terms of penetration.

Total premium stood at 149.9 trillion KRW (134 billion USD) in 2011 ranking it the eighth largest in the world. Insurance penetration stood at 11.6 percent and was ranked 5th in the world. Continued growth is expected particularly in retirement savings products given the expectations for demographic aging. There are 55 insurers, up from 50 five years earlier. There are 24 life insurers and 31 non-life insurers. Included in the defined non-life insurance companies are nine reinsurers. There are 26 foreign insurers, including 14 that operate as branches. Seven insurers are part of defined financial groups, six having a bank holding company. The market is open and competitive. All of the large insurers are substantially domestic and do not currently meet the expected criteria for either IAIS Global Systemic Insurers or Comframe IAIG supervision.

131. Negative interest rate spreads remain an issue but the challenges have been mitigated substantially by having recognized the issue well before many other jurisdictions.

An active program of monitoring these risks through stress testing and other methods, along with actions by insurers has greatly reduced this risk and it is expected that insurers are sufficiently resourced. However, the risk remains albeit at reduced levels and needs to be monitored on an ongoing basis.

132. Insurer profitability and capital are solid for both life and non-life insurance.

Capital levels have built over time through injections and retained profits, and comfortably meet requirements.

133. Supervision of the insurance industry in Korea is the responsibility of the Financial Services Commission (FSC) and the Financial Supervisory Service (FSS).

The original FSC was established in 1998 but underwent an important change in 2008 when it was elevated in status and took on additional policy responsibilities. The FSC delegates inspection and supervision activities, including by specifying procedures, to the FSS.

134. Industry capacity for enhanced ERM will take time to mature. Continuing the development of risk management capacity can be supported by current initiatives to enhance requirements.

Observance will be improved further as ongoing initiatives progress. Enhanced risk management, group supervision will become more important and can be enhanced progressively using existing platforms for cooperation. G-SIFI and ComFrame could be relevant for Korea at least as a host supervisor in the short term. Becoming a signatory to the IAIS MMoU is in progress.

135. Table 16 lists the suggested steps for improvement of the already high level of observance. These tend to reflect actions that are already in progress but yet to be fully operational. In particular, improvements in the risk management systems in insurers, supported by a continuing shift toward risk based supervisory approaches, will secure many of the improvements. Some changes to legal scope are also suggested, most particularly with respect to supervision of groups.

Table 15. Summary of Observance with the Insurance Core Principles

Insurance Core Principle	Overall Comments
1. Objectives, Powers, and Responsibilities of the Supervisor	The requirements meet the standards of this core principle.
2. Supervisor	The FSS and FSC arrangements are largely in line or above with international standards although some enhancement to legal protection in practice and to reduce the risk of politicization of the leadership positions is suggested.
3. Information Exchange and Confidentiality Requirements	The requirements meet the standards of this core principle.
4. Licensing	The requirements meet the standards of this core principle.
5. Suitability of Persons	The authorities should extend oversight to key persons in control functions regardless of their formal management position, and should consider more formal criteria that relate to collective adequacy of boards and the possibility that any person (not just those specified) might be over-extended. The obligation on insurers to self-monitor and report suitability could be made more formal.
6. Changes in Control and Portfolio Transfers	The requirements meet the standards of this core principle.
7. Corporate Governance	The requirements meet the standards of this core principle.
8. Risk Management and Internal Controls	The approach to regulation, particularly regarding internal controls, actuarial obligations, and compliance, is fully observed. Risk management is one area where observance will be fully achieved as industry capacity improves and internalizes risk management approaches throughout the business operations.
9. Supervisory Review and Reporting	The requirements meet the standards of this core principle.
10. Preventive and Corrective Measures	The requirements meet the standards of this core principle.
11. Enforcement	The requirements meet the standards of this core principle.
12. Winding-up and Exit from the Market	The requirements meet the standards of this core principle.
13. Reinsurance and Other Forms of Risk Transfer	The requirements meet the standards of this core principle.
14. Valuation	The continued use of historic cost as a part of the valuation system will reduce in relevance over time but does, in the interim period, reduce the transparency and consistency of the approach somewhat.
15. Investment	Noting that larger insurers tend to have more advanced risk management processes and their limit setting approach tends to be more robust, the FSS could reinforce shift to more risk based approach within the limit structure.
16. Enterprise Risk Management for Solvency Purposes	The FSS and FSC are developing requirements to introduce an ORSA system for insurers based on some guidelines that are under discussion. It is also planning

Table 15. Summary of Observance with the Insurance Core Principles

Insurance Core Principle	Overall Comments
	<p>to have detailed requirements added to regulations for ERM. There is a good deal of potential detail that can be implemented as ERM capacity develops in Korean insurers and the approach of doing so of having a guideline would be good.</p> <p>The rating of LO is justified given the successful implementation of major reforms in a timely manner in the Korean market.</p>
17. Capital Adequacy	The absence of a group capital requirement should be addressed.
18. Intermediaries	Whilst the FSS and the legal requirements are sufficient, the FSS might consider some more proactive and anticipatory approaches to ensure its presence in the area is given a higher profile.
19. Conduct of Business	The requirements meet the standards of this core principle.
20. Public Disclosure	The requirements meet the standards of this core principle.
21. Countering Fraud in Insurance	The very impressive approach can be further leveraged to improve value to clients and efficiency in insurers.
22. Anti-Money Laundering and Combating the Financing of Terrorism	The shortcomings in the AML regime, including the need to specifically address domestic politically exposed persons, should be addressed to achieve full observance.
23. Group-wide Supervision	The authorities should advance supervisory college considerations with respect to larger groups that are internationalizing. The FSS should also request participation in colleges for foreign insurers utilizing their international network to minimize costs. Consideration to strengthening the voluntary nature of the FHC laws with either stronger indirect oversight or compulsion would have merit.
24. Macroprudential Surveillance and Insurance Supervision	The FSS should continue to develop its capacity to identify emerging risks relevant to the insurance sector and the treatment of these in integrated stress testing, particularly where insurers are part of financial groups, and could further diversify the range of sources that might suggest issues for further analysis such as consideration of legislative changes on insurance experience.
25. Supervisory Cooperation and Coordination	The authorities should look to deepen engagement in cooperation activities relating to groups (FHC approved or not) by exploring exchange of understanding of supervisory issues at operational levels and contingency planning.
26. Cross-border Cooperation and Coordination on Crisis Management	<p>The authorities should look to deepen engagement in cooperation activities relating to groups (FHC approved or not) by exploring exchange of understanding. Discussion on expectations in the event of insurer distress as part of preliminary planning with key counterpart jurisdictions to take the elaboration to a deeper level of operational detail.</p> <p>The authorities should continue the IAIS MMoU process.</p>

Table 16. Recommendations to Improve Observance of Insurance Core Principles

Insurance Core Principle	Recommendations
2. Supervisor	Measures to enhance the political independence of the governing bodies could be considered. Legal protection arrangements should be strengthened further.
5. Suitability of Persons	The authorities should extend oversight to key persons in control functions regardless of their formal management position, and should consider more formal criteria that relate to collective adequacy of boards and the possibility that any person (not just those specified) might be over-extended. The obligation on insurers to self-monitor and report suitability could be made more formal.
8. Risk Management and Internal Controls	Efforts to encourage more effective enterprise risk management in insurers should be continued.
15. Investment	Noting that larger insurers tend to have more advanced risk management processes and their limit setting approach tends to be more robust, the FSS could reinforce shift to more risk based approach within the limit structure.
16. Enterprise Risk Management for Solvency Purposes	The FSC FSS should press ahead with efforts that encourage a risk based approach to implementing ORSA and ERM processes within insurers, in an effort to ensure continued focus on the maturing risk management technical developments that insurers are pursuing.
17. Capital Adequacy	The absence of a group capital requirement should be addressed.
18. Intermediaries	Whilst the FSS and the legal requirements are sufficient, the FSS might consider some more proactive and anticipatory approaches to ensure its presence in the area is given a higher profile.
22. Anti-Money Laundering and Combating the Financing of Terrorism	The shortcomings in the AML regime, including the need to specifically address domestic politically exposed persons, should be addressed to achieve full observance.
23. Group-wide Supervision	The authorities should advance supervisory college considerations with respect to larger groups that are internationalizing. The FSS should also request participation in colleges for foreign insurers utilizing their international network to minimize costs. Consideration to strengthening the voluntary nature of the FHC laws with either stronger indirect oversight or compulsion would have merit.
24. Macroprudential Surveillance and Insurance Supervision	The FSS should continue to develop its capacity to identify emerging risks relevant to the insurance sector and the treatment of these in integrated stress testing, particularly where insurers are part of financial groups, and could further diversify the range of sources that might suggest issues for further analysis such as consideration of legislative changes on insurance experience.
25. Supervisory Cooperation and Coordination	The authorities should look to deepen engagement in cooperation activities relating to groups (FHC approved or not) by exploring exchange of understanding of supervisory issues at operational levels and contingency planning.
26. Cross-border Cooperation and Coordination on Crisis Management	<p>The authorities should look to deepen engagement in cooperation activities relating to groups (FHC approved or not) by exploring exchange of understanding. Discussion on expectations in the event of insurer distress as part of preliminary planning with key counterpart jurisdictions to take the elaboration to a deeper level of operational detail.</p> <p>The authorities should continue the IAIS MMoU process.</p>

B. Authorities' Response to the Assessment

136. The Financial Services Commission and the Financial Supervisory Service of Korea (FSC/FSS) welcome the IMF/World Bank's review of Korea's regulatory and supervisory framework for the insurance sector. The FSC/FSS are firmly committed to the FSAP process, as it provides many valuable insights into the authorities' effort to continuously review and improve Korea's regulatory and supervisory framework for the insurance sector. The FSC/FSS also appreciate this opportunity to comment on the review, and there are some areas where the authorities do not agree on the assessment or would like to provide further thoughts on.

137. With respect to the 'suitability of persons' principle, the IMF/World Bank recommends that the Korean authorities should extend oversight to key persons in control functions regardless of their formal management position. However, in accordance with Article 13 of the Insurance Business Act and Article 19 of the Enforcement Decree of the Insurance Business Act, the FSC/FSS review the fitness and propriety of every key person of an insurance company who exercises material influence on management decisions, regardless of his or her formal management position.

138. On the 'enforcement' principle, the assessment noted that the FSS can fine or remove individuals for 2 or 5 years. The FSC/FSS wish to add that Article 134 of the Insurance Business Act provides a firm legal basis to impose a wider range of sanctions on insurance companies and their executives/employees, which include but not limited to monetary penalty and suspension from duties.

139. The FSC/FSS would also like to take this opportunity to share one of the key post-assessment changes in Korea's regulatory framework for insurance companies. Following the submission of comments on the IMF/World Bank's draft assessment in May, the authorities laid the groundwork for the implementation of consolidated risk-based capital (RBC) regime in order to strengthen prudential supervision of insurance groups.

140. The FSC/FSS believe that the new consolidated RBC regime will contribute greatly to more effective group-wide risk management in the insurance sector, as it would help insurance companies better identify subsidiary risks and prevent the spread of contagion from a subsidiary to the entire insurance group.

141. While a partial trial implementation of the new regime already began in August 2013, the FSC/FSS expect to proceed with full implementation some time in 2015 after necessary industry and market assessments.

142. Finally, the FSC/FSS appreciate the IMF/World Bank's recommendations and fully expect to utilize the assessment outcome as an opportunity to further improve and strengthen Korea's insurance regulation and supervision. The authorities also look forward to a continuing dialogue with the IMF/World Bank in jointly seeking to improve the stability and effective supervision of the global financial services sector.