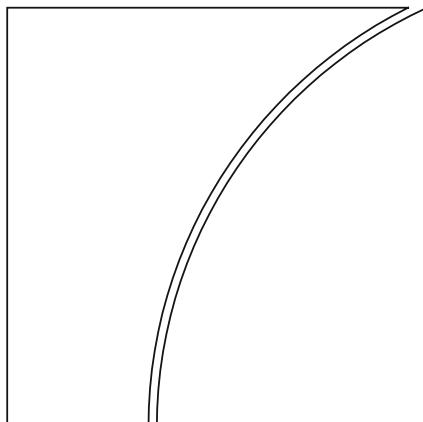


Basel Committee on Banking Supervision



Regulatory Consistency Assessment Programme (RCAP)

Assessment of Basel III risk-based capital regulations – Korea

September 2016



BANK FOR INTERNATIONAL SETTLEMENTS

Note that this report refers to the RCAP grades prior to October 2025. The grade 'materially non-compliant (MNC)', ie one notch above the lowest grade, has since been renamed to 'partially non-compliant (PNC)' for greater clarity

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Glossary

AMA	Advanced Measurement Approaches
AGSFC	Act on Governance Structure for Financial Companies
A-IRB	Advanced Internal Ratings-Based Approach
ASA	Alternative Standardised Approach
AT	Assessment Team
AT1	Additional Tier 1
BCBS	Basel Committee on Banking Supervision
BIA	Basic Indicator Approach
CAR	Capital adequacy ratio
CCP	Central counterparty
CCR	Counterparty credit risk
CET1	Common Equity Tier 1
CEM	Current exposure method
CRE	Commercial real estate
CVA	Credit valuation adjustment
D-SIBs	Domestic systemically important banks
DRSBB	Detailed Regulation on Supervision of Banking Business
EAD	Exposure at default
FAQs	Frequently asked questions
F-IRB	Foundation Internal Ratings-Based Approach
FSAP	Financial Sector Assessment Programme
FSC	Financial Services Commission of Korea
FSS	Financial Supervisory Service of Korea
FX	Foreign exchange
GGSFC	Guidelines on Governance Structure for Financial Companies
G-SIB	Global systemically important bank
HVCRE	High-volatility commercial real estate
ICAAP	Internal Capital Adequacy Assessment Process
IMA	Internal Models Approach
IMM	Internal Models Method
IPRE	Income-producing real estate
IRB	Internal Ratings-Based Approach
KFB	Korean Federation of Banks
KRW	Korean won
LGD	Loss-given-default
MDB	Multilateral development bank
MR	Market risk

OTC	Over-the-counter
PD	Probability of default
PONV	Point of non-viability
PSE	Public sector entities
QRRE	Qualifying Revolving Retail Exposures
RCAP	Regulatory Consistency Assessment Programme
RSFHC	Regulation on Supervision of Financial Holding Companies
RSBB	Regulation on Supervision of Banking Business
RWA	Risk-weighted assets
SA-CCR	Standardised approach for measuring counterparty credit risk exposures
SMM	Standardised Measurement Method
TSA	The Standardised Approach

Preface

The Basel Committee on Banking Supervision sets a high priority on the implementation of regulatory standards underpinning the Basel III framework. The prudential benefits from adopting Basel standards can only fully accrue if these are implemented appropriately and consistently by all member jurisdictions. The Committee established the Regulatory Consistency Assessment Programme (RCAP) to monitor, assess and evaluate its members' implementation of the Basel framework.

This report presents the findings of the RCAP Assessment Team on the domestic adoption of the Basel risk-based capital standards in Korea and its consistency with the minimum requirements of the Basel III framework.¹ The assessment focuses on the adoption of Basel standards applied to the Korean banks that are internationally or regionally active and of significance to Korea's domestic financial stability.

In recent years, the Korean authorities² have undertaken several noteworthy initiatives designed to strengthen the prudential framework relating to bank capital. The Korean authorities issued the final rule on Basel III risk-based capital in November 2013 to implement the Basel III framework (taking effect in December 2013).

The RCAP Assessment Team was led by Mr Michael Schoch, Head of Banks Division and Member of the Executive Board of the Swiss Financial Market Supervisory Authority (FINMA). The Assessment Team comprised seven technical experts drawn from Belgium, China, India, Hong Kong SAR, Germany, Singapore and South Africa (Annex 1). The main counterparty for the assessment was the Financial Supervisory Service of Korea (FSS).

The assessment relied upon the data, information and materiality computations provided by the FSS. The assessment findings are based primarily on an understanding of the current processes in Korea as explained by Korean authorities and the expert view of the Assessment Team on the documents and data reviewed. The overall work was coordinated by the Basel Committee Secretariat with support from FINMA staff.

The assessment began in November 2015 and comprised: (i) completion of an RCAP questionnaire (a self-assessment) by the Korean authorities; (ii) an off- and on-site assessment phase (November 2015 to June 2016); and (iii) a post-assessment review phase (July to September 2016). The off- and on-site phases included: (i) the Team Leader's on-site visit for preliminary discussions with the Korean authorities and representatives of Korean banks (which were used as the RCAP sample banks for the purpose of impact assessment); (ii) an off-site Assessment Team meeting; and (iii) an Assessment Team's on-site visit for discussions with the Korean authorities and external audit firms. These exchanges provided the Assessment Team with a deeper understanding of the implementation of the Basel risk-based capital standards in Korea. The third phase consisted of a two-stage technical review of the assessment findings: first by a separate RCAP Review Team and feedback from the Basel Committee's Supervision and Implementation Group; and secondly, by the RCAP Peer Review Board and the Basel

¹ See also the separate RCAP assessment report on Korea's compliance with the Basel III Liquidity Coverage Ratio. Other Basel III standards, namely the Net Stable Funding Ratio, the leverage ratio, and the framework for systemically important banks will be assessed as those standards become effective as per the internationally agreed phase-in arrangements.

² Korean authorities refers to the Financial Services Commission (FSC), Financial Supervisory Service (FSS) and the Bank of Korea (BoK).

Committee. This two-step review process is a key instrument of the RCAP process to provide quality control and ensure integrity of the assessment findings.

The focus of the assessment was on the consistency and completeness of the domestic regulations in Korea with the Basel minimum requirements. Issues relating to adequacy of prudential outcomes, capital levels of individual banks, the adequacy of loan classification practices, or the FSS's supervisory effectiveness were not in the scope of this RCAP assessment exercise.

Where domestic regulations and provisions were identified to be not in conformity with the Basel framework, these deviations were evaluated for their current and potential impact (or non-impact) on the reported capital ratios for a sample of banks that are internationally active or regionally active and of significance to Korea's domestic financial stability. Some findings were evaluated on a qualitative basis. The assessment outcome was based on the materiality of findings and the use of expert judgment.

The report has three sections and a set of annexes: (i) an executive summary with a statement from the FSS on the material findings; (ii) the context, scope and methodology and the main set of assessment findings; and (iii) details of the deviations and their materiality along with other assessment-related observations.

The RCAP Assessment Team acknowledges the professional cooperation received from the Korean authorities throughout the assessment process. In particular, the Assessment Team sincerely thanks the staff of the FSS for playing an instrumental role in coordinating the assessment exercise. The series of comprehensive briefings and clarifications provided by the Korean authorities enabled the RCAP assessors to arrive at their expert assessment. The Assessment Team is hopeful that the RCAP assessment exercise will contribute towards strengthening prudential effectiveness and full implementation of the recent reform measures in Korea.

Executive summary

The Korean risk-based capital regulations (Basel II) came into force in January 2008. The prudential framework applies to all banking institutions, including national and commercial banking institutions. The frameworks of Basel 2.5 and Basel III came into effect on February 2012 and December 2013, respectively.

The RCAP Assessment Team (Assessment Team) identified a number of deviations from the Basel framework, the majority of which the FSS has rectified. The FSS used the discipline of the RCAP exercise to undertake reform and upgrade their prudential capital framework – to the extent feasible and consistent with Korean national interests. In all, Korean's capital framework benefited during the course of the RCAP assessment work from 38 rectifications.

Overall, as of the 30 June 2016 cut-off date for the RCAP assessment, the Assessment Team finds Korea's prudential regulations to be largely compliant with the standards prescribed under the Basel framework. Overall, 12 of the 14 components assessed are compliant with the Basel framework, and one component (definition of capital) is largely compliant while one component (transitional arrangements) is materially non-compliant. In view of this, the prudential regulatory framework in Korea was evaluated to be largely compliant with the minimum standards prescribed under the Basel framework.

The Korean implementation of the detailed requirements of the definition of capital and transitional arrangements are in line with the Basel framework in many respects. Nevertheless, the Assessment Team noted a few but important material deviations that would lead to a higher capital base for the affected Korean banks.

The transitional arrangements component grade is driven mainly by one material finding. The Basel rules text requires that instruments issued after 1 January 2013 should be compliant with PONV requirements and would otherwise be fully derecognised. As the enforcement date of Korean domestic regulation on Basel III was in November 2013 (instead of 1 January 2013), due to delays in national implementation of Basel III, the issuances of capital instruments without PONV requirements between January 2013 and November 2013 were allowed to be recognised as part of transitional arrangement (until end-2022) instead of being fully derecognised immediately, as required by Basel standards. As of December 2018, the most affected bank had an outstanding issuance that formed 0.71% of its total RWAs, representing a 71 bp overstatement of its capital ratio, and the weighted average ratio of these issuances to the seven banks' RWAs was 0.34% (implying a 34 bp overstatement of capital ratios on average). While the impact is expected to gradually decrease based on the applied transitional arrangements, the underlying issuances are expected to remain in the books of seven Korean banks until end-2022. Given this current impact, the transitional arrangements component was assigned a materially non-compliant grading, following the RCAP methodology.

Concerning the definition of capital component, the Assessment Team noted one key finding that contributed to a largely compliant grading. Basel standards require instruments to be perpetual, ie to have no explicit maturity date, in order for such instruments to be eligible for Additional Tier 1 (AT1) capital. Under Korean rules, instruments with an initial maturity date of a minimum maturity of 30 years and combined with an embedded rollover clause are viewed as perpetual and consequently are then considered eligible for AT1 capital. This was implemented consciously by the Korean authorities to accommodate the existing legal constraint introduced by the Korean Commercial Act that requires all debt instruments to have a maturity date.

As part of its rectification action, the FSS introduced a new article in the Enforcement Decree of the Banking Act (EDBA)³, and deleted the reference to the 30-year maturity in the DRSBB. The FSS explained to the Assessment Team, that this new article in the EDBA (a governing law of the RSBB and the DRSBB), would allow Korean banks to issue contingent capital instruments without any reference to an explicit maturity date in the underlying debt term sheet. In contrast, such bonds are regarded as carrying an implicit maturity date aligned with the exercise of permanent write-down following the contingent trigger event (ie a bank's liquidation or bankruptcy). The FSS confirmed the Assessment Team's understanding that "implicit maturity" upon PONV confers no right to repayment and it is simply the term used to confirm that the instrument no longer exists as a result of the write-down/conversion. In this regard, the Assessment Team finds the rectification action proposed by the FSS to be satisfactory.

Notwithstanding, the remaining legacy issue as a result of the previous regulation cannot be fully ignored. The Assessment Team noted there is a considerable amount of outstanding previous issuance of ineligible AT1 instruments with a 30-year maturity date. As of December 2018, the impact remains material, affecting two Korean banks, with the most affected bank having an outstanding issuance of 0.62% of its total RWA (ie an overstatement of capital ratio by 62 bp) and a weighted average impact of 0.17% of the total RWAs (ie an overstatement of capital ratio by 17 bp) of the sample banks. In its assessment, the Assessment Team reflected that the FSS has prohibited banks from issuing such instruments following the RCAP on-site review in February 2016. The Assessment Team also anticipated that the impact would be reduced over time, as the FSS may ask banks to redeem the outstanding ineligible AT1 instruments on the call date. However, the Assessment Team had to be cognisant that the risk of such instruments being recognised as Tier I capital until 2025 cannot be fully ruled out.

The Assessment Team compliments the FSS for its substantial reforms and the achieved alignment with the Basel capital framework. Overall, FSS has taken a prudential stance in implementing the Basel minimum standards for Pillar 1, which is evidenced by several noteworthy areas of super-equivalence (Annex 10). The RCAP Methodology does not, however, provide for those to be taken into account. Further, several important elements in the Korean regulation, notably the Pillar 2 capital framework, have only recently been implemented and their effectiveness will require the FSS and the banks to build up further experience. Looking ahead, the Assessment Team recommends keeping the Pillar 2 parts of the prudential framework, and a few other items, under review and listing them for a re-assessment at a future follow-up RCAP assessment (Annex 12). The team also identified one item that would benefit from further clarification by the Basel Committee (Annex 13).

³ Newly issued Article 19 of EDBA: "Where a bank issues financial bonds pursuant to article 33(2)-(4) of the Banking Act (herein after "contingent convertible bonds"), the bond's maturity date may be set as the date on the bank's liquidation or bankruptcy."

Response from the Financial Supervisory Service of Korea

The Financial Supervisory Service (FSS) welcomes the opportunity to respond to the findings and comments of the RCAP Assessment Team on the implementation of the Basel III capital adequacy requirements in Korea. The FSS deeply appreciates the expertise and hard work of the RCAP Assessment Team and its leader, Mr. Michael Schoch.

The FSS supports the objective of the RCAP from the BCBS, and agrees humbly to the Korean RCAP results. We believe the RCAP has provided us with great opportunities to enhance consistency between local regulations and the Basel standards. Specifically, the discussions that we had with the Assessment Team during the on-site visit helped us to make Korean regulation be consistent with Basel standard.

Before the Korean RCAP started, the FSS pre-emptively amended regulations several times through self-assessments. Furthermore, for the findings the Assessment Team pointed out during the on-site visit, the FSS completed the revision of local regulations before the cut-off date to be consistent with the Basel standards.

The Assessment Team has evaluated that a few parts of the definition of capital and transitional arrangement are not entirely compliant with the Basel standards. We believe that such deviation is derived from the delayed Basel III implementation, and that therefore it will be resolved in the near future as early redemption will be encouraged. The FSS respects the Assessment Team's evaluation based on expert judgements. As stated in the report, other components have been evaluated as compliant with the Basel standards. We believe this shows that Korean capital regulations have contributed to strengthening a level playing field in the global banking system.

The FSS agrees that the RCAP is an efficient program for improving the consistency of banking standards across jurisdictions. The program is also an important tool that helps ensure the stability and soundness of the global banking system. The FSS will continue to work hard to sustain a level playing field and promote stability in the global banking system.

1 Assessment context and main findings

1.1 Context

Status of implementation

The Financial Services Commission (FSC) is responsible for the regulation and supervision of the banking sector. The FSC is empowered by the Article 17 of the Act on the Establishment of Financial Services Commission to issue banking regulations, rules and guidance to licensed banks in the Korea. The Basel II Pillar 1 standards have been in effect from January 2008 and, subsequently, Basel 2.5 and Basel III were implemented with effect from February 2012 and December 2013, respectively, via the issuance of regulations as outlined in Table 2. Regulations are published in Korean language. For the purpose of RCAP assessment, the regulations were translated in English.

Status of approval of Basel advanced approaches

Number of banks, end-December 2015

Table 1

	Standardised Approach	Banks under Standardised Approaches with intent to move to Advanced approach	Advanced approach approved by FSS
Credit risk	RCAP banks :1 Other banks :3	RCAP banks : Nil Other banks : 2 (FIRB)	RCAP banks : 7 (AIRB) : 1 (FIRB) : 6 Other banks : 4 (AIRB) : 1 (FIRB) : 3
Counterparty credit risk	RCAP banks : 8 (CEM) Other banks : 9 (CEM)	RCAP banks : Nil Other banks : Nil	RCAP banks : Nil Other banks : Nil
Market risk	RCAP banks : 3 Other banks : 8	RCAP banks : Nil Other banks : Nil	RCAP banks : 5 Other banks : 1
Operational risk	RCAP banks : 3 Other banks : 9	RCAP banks : Nil Other banks : Nil	RCAP banks : 5 Other banks : Nil

Source: FSS Korea.

In January 2016, the FSS issued regulations regarding Pillar 2 that stipulate the new requirements for banks' internal capital adequacy assessment process (ICAAP), as well as the framework for the supervisory review and evaluation process (SREP). At the time of the assessment, the FSS were in the process of implementing the new Pillar 2 framework. Before testing its effectiveness, the FSS and the banks will need to build up further experience. The FSS expects to complete the first cycle of Pillar 2 reviews in 2017.

Regarding Pillar 3, the FSS issued minimum disclosure requirements for banks in August 2012, covering both the disclosure requirements on a solo basis and consolidated basis. The disclosure requirements were subsequently revised and updated, including during the RCAP assessment in June 2016.

Regulatory system and model of supervision, and binding nature of prudential regulations

All Korean banks, including national and commercial banks are subject to the Basel capital regulation on both a standalone and consolidated level.

Banking regulations in Korea comprise (i) the Banking Act, (ii) the Enforcement Decree of the Banking Act, (iii) the Regulation on Supervision of Banking Business (RSBB), (iv) the Detailed Regulations on Supervision of Banking Business (DRSBB) and (v) the Instructions for Unified Disclosure for Financial Services (IUDFS). The authority for each of the five regulations vary and follow a vertical hierarchy from the highest (i) to the lowest (v). The Banking Act provides a comprehensive framework for banking regulation and supervision by the Financial Services Commission (FSC) including prudential standards (eg capital, assets and liquidity). The Banking Act provides the FSS with the authority to supervise banks and ensure they abide by the rules and regulations set by the FSC. In addition, the Banking Act authorises the FSC to take enforcement measures against banks when violating rules and regulations. The RSBB and the DRSBB are regulations derived from the Banking Act and the Enforcement Decree of the Banking Act. The IUDFS is written by the Korea Federation of Banks (KFB) and, according to the RSBB, the FSS has the power to require enactment and amendment of the IUDFS issued by the KFB. Annexes 2 and 7 provide further information regarding the structure and bindingness of the Korean prudential regulations.

Some regulations are supplemented by additional guidance, eg the Guidelines on Governance Structure for Financial Companies (GGSFC) or "Criteria for Drafting Annual Corporate Governance Reports" (issued by the Korean Federation of Banks). These supplementary documents do not have regulatory status, but banks' compliance with these documents is taken into account into supervision and the FSS may follow up in case of non-compliance. Several Pillar 2 (paragraphs 84–94 of the Sound compensation practices of the Basel supplemental Pillar 2 guidance) and Pillar 3 (the disclosure requirements for remuneration) requirements are implemented through the GGSFC. For the purpose of the assessment of Pillars 2 and 3, the Assessment Team concluded that the legal bindingness and enforceability of the GGSFC are questionable. Notwithstanding, the Assessment Team take cognisance that the provisions in the GGSFC will be formally enacted in the Act on Governance Structure of Financial Companies (AGSFC) by August 2016.

The team verified the bindingness of the prudential regulations through an assessment of the RCAP bindingness criteria, and agrees that the documents are binding (see Annex 7). Based on the meeting with Korean banks during the team leader's visit, the representatives from these banks confirmed the bindingness of the prudential regulations.

Hierarchy of banking regulations in Korea

Table 2

Laws that empower the FSS as banking supervisor	Banking Act (issued by the National Assembly)
	Enforcement Decree of Banking Act (issued by the President and the State Council)
Supervisory regulations derived from the above laws (various)	Regulation on Supervision of Banking Business (issued by the Financial Services Commission)
	Detailed Regulation on Supervision of Banking Business (the Financial Supervisory Service)
	Instruction for Unified Disclosure for Financial Services (the Korean Federation of Banks)
	Act on Governance Structure of Financial Companies (to be issued by August 2016 to replace the current Guidelines on Governance Structure of Financial Companies (GGSFC)

1.2 Structure of the banking sector

As at December 2015, 17 banks were licensed in Korea (17 banks are locally incorporated), with total bank assets (including off-balance sheet equivalents) amounting to KRW 2,878 trillion (approximately USD 2.39 trillion – see Annex 8 for an overview of selected key indicators of the Korean banking sector). The financial system is dominated by the 10 largest internationally active commercial banks, which hold about 91% of total banking assets. There are no global systemically important banks (G-SIBs) in Korea, but two of the 17 banks are subsidiaries of foreign G-SIBs. Korean authorities have finalised the framework for identification of domestic systemically important banks (D-SIBs) and have identified six banks as D-SIBs.

Under the new Basel III standards, the weighted average total capital ratio of the 10 largest banks stood at 13.84% (as at 31 December 2015). The Tier 1 ratio and the CET1 ratio were 11.29% and 10.71%, respectively. Credit risk is the predominant risk type for Korean banks, and accounts for approximately 92.53% of total risk-weighted assets, followed by operational risk (4.9%) and market risk (2.57%). The FSS has been cautious in allowing banks to engage in complex financial activities.

1.3 Scope of the assessment

Scope

The RCAP Assessment Team has considered all documents that effectively implement the risk-based Basel capital framework in Korea as of 30 June 2016, the cut-off date for the assessment (Annex 4).

The assessment focused on two dimensions:

- A comparison of domestic regulations with the capital standards under the Basel framework to ascertain that all the required provisions have been adopted (*completeness* of the Korean domestic regulation); and
- Whether there are any differences in substance between the domestic regulations and the capital standards under the Basel framework and their significance (*consistency* of the Korean regulation).

In carrying out the above, the RCAP Assessment Team considered all binding documents that effectively implement the Basel framework in Korea as discussed above. Importantly, the assessment did not evaluate the adequacy of capital or resilience of the banking system in Korea or the supervisory effectiveness of the Korean regulatory authorities.

Any identified deviation was assessed for its materiality (current and potential, or having an insignificant impact) by using both quantitative and qualitative information. For potential materiality, in addition to the available data, the assessment used expert judgment on whether the domestic regulations met the Basel framework in letter and spirit (see Section 1.4).

Bank coverage

For the purposes of assessing the materiality of deviations, data were collected from the following eight banks: Woori Bank, Kookmin Bank, Shinhan Bank, Industrial Bank of Korea, Nonghyup Bank, Hana Bank, Citibank Korea and Kyongnam Bank. These banks represent more than 76% of total assets of the banking system in Korea (as at 31 December 2015).

Assessment grading and methodology

As per the RCAP methodology approved by the Basel Committee, the outcome of the assessment was summarised using a four-grade scale, both at the level of each of the 14 key components of the risk-based

Basel capital framework and the overall assessment of compliance: compliant, largely compliant, materially non-compliant and non-compliant.⁴

The materiality of the deviations was assessed in terms of their current or, where applicable, potential future impact (or non-impact) on the banks' capital ratios. Wherever relevant and feasible, the Assessment Team, together with the FSS, attempted to quantify the impact based on data collected from Korean banks in the agreed sample of banks (see Annex 9). The non-quantifiable aspects of identified deviations were discussed and reviewed in the context of the prevailing regulatory practices and processes with the FSS.

Ultimately, the assignment of the assessment grades was guided by the collective expert judgment of the Assessment Team. In doing so, the Assessment Team relied on the general principle that the burden of proof rests with the assessed jurisdiction to show that a finding is not material or not potentially material. A summary of the materiality analysis is given in Section 2 and Annex 9.

In a number of areas, the Korean rules go beyond the minimum Basel standards. Although these elements provide for a more rigorous implementation of the Basel framework in some aspects, they have not been taken into account for the assessment of compliance under the RCAP methodology as per the agreed assessment methodology (see Annex 10 for a listing of areas of super-equivalence).

1.4 Main findings

A summary of the main findings is given below.

Summary assessment grading		Table 3
Key components of the Basel capital framework	Grade	
Overall grade:	LC	
Scope of application	C	
Transitional arrangements	MNC	
Pillar 1: Minimum capital requirements		
Definition of capital	LC	
Credit Risk: Standardised Approach	C	
Credit risk: Internal Ratings-Based Approach	C	
Securitisation framework	C	
Counterparty credit risk framework	C	
Market risk: Standardised Measurement Method	C	
Market risk: Internal Models Approach	C	
Operational risk: Basic Indicator Approach and Standardised Approach	C	
Operational risk: Advanced Measurement Approaches	C	
Capital buffers (conservation and countercyclical)	C	

⁴ This four-grade scale is consistent with the approach used for assessing countries' compliance with the Basel Committee's *Core principles for effective banking supervision*. The actual definition of the four grades has been adjusted to take into account the different nature of the two exercises. In addition, components of the Basel framework that are not relevant to an individual jurisdiction may be assessed as not applicable (N/A). See www.bis.org/publ/bcbs264.htm for further details.

Pillar 2: Supervisory review process	
Legal and regulatory framework for the Supervisory Review Process and for taking supervisory action	C
Pillar 3: Market discipline	
Disclosure requirements	C

Definition of the grades: **Compliant (C)**: all minimum Basel provisions have been satisfied and no material deviations have been found that would give rise to prudential concerns or provide a competitive advantage to internationally active banks; **Largely compliant (LC)**: only minor provisions have not been satisfied and differences that have a limited impact on financial stability or the international level playing field have been identified; **Materially non-compliant (MNC)**: key provisions of the framework have not been satisfied or differences that could materially impact capital ratios have been identified; **Non-compliant (NC)**: the regulation has not been adopted or differences that could severely impact capital ratios and financial stability or international level playing field have been identified.

Colour code:

Compliant	C
Largely compliant	LC
Materially non-compliant	MNC
Non-compliant	NC

Main findings by component

Scope of application

The Korean rules in this component are considered compliant with the Basel standards. As a general matter, the Basel III capital framework should apply on a fully consolidated basis to all internationally active banks at every tier within a banking group, and to any bank holding company that is the parent entity within a banking group, to ensure that the requirements capture the risk of the whole banking group. The Korean rules apply the Basel framework to all banks on both a standalone and a consolidated basis. If the bank is majority-owned by a holding company, the capital regulation will be applied at the holding company level that scopes in all financial subsidiaries of the holding company, excluding insurance companies.

Transitional arrangements

The transitional arrangements are assessed as materially non-compliant with the Basel standards driven by one material finding. The Basel rules text requires that instruments issued after 1 January 2013 should be compliant with PONV requirements and would otherwise be fully derecognised. As the enforcement date of Korean domestic regulation on Basel III was in November 2013 (instead of 1 January 2013), due to a delay in the national implementation, the issuances of capital instruments without PONV requirements between January 2013 and November 2013 were allowed to be recognised as part of transitional arrangements (until end-2022) instead of their immediate full derecognition, as required by the Basel standards.

For the purpose of assessing materiality, the Assessment Team took December 2018 as the reference date, ie the end of the phase-in period of Basel III for capital deductions. As of December 2018, seven banks had outstanding issuances of Tier I and Tier II instruments that were issued during the period of January–November 2013 and which amounted to KRW 0.8 trillion and KRW 2.3 trillion, respectively. The most affected bank had an outstanding issuance that formed 0.71% of its total RWAs or a 71 bp overstatement of its capital ratio, and the weighted average impact of these issuances on the seven banks' RWAs was 0.34% (ie a 34 bp overstatement).

Notwithstanding, in several areas, the Assessment Team noted a super-equivalent implementation of transitional arrangements. Specifically, the FSS did not adopt most of the transitional arrangements permitted in the Basel framework, eg (i) phase-in of the minimum Common Equity Tier I and Tier I capital requirement; (ii) regulatory adjustment items; as well as (iii) the decrease of the recognised amount of minority interests. These are detailed in the report (see Annex 10) but, in accordance with the RCAP assessment methodology approved by the Basel Committee, aspects where Korean requirements are stricter than the Basel standards were not taken into account in evaluating consistency and in assigning assessment grades. Furthermore, these items will cease to exist by end-2018, a reference date that is used for the materiality assessment.

Definition of capital

The Assessment Team noted one key finding that contributed to the largely compliant grading of this component, which is the scope for considering Additional Tier 1 instruments with an explicit minimum maturity of 30 years as Tier 1 capital. This deviation is no longer present in the Korean regulation after the rectification by the Korean authorities, but there is a legacy issue.

Basel standards require instruments to be perpetual, ie to have no explicit maturity date, in order for such instruments to be eligible for Additional Tier 1 (AT1) capital. Under Korean rules, instruments with an initial maturity date implying a minimum maturity of 30 years combined with an embedded rollover clause are viewed as perpetual and are then considered eligible for AT1 capital. This was implemented deliberately by the Korean authorities to accommodate the legal constraint imposed by the Korean Commercial Act that requires all debt instruments to have a maturity date.

After a careful review of this alternative structure, particularly the operational mechanism of the automatic rollover feature at the maturity date, the Assessment Team acknowledged the similarity between this structure and a pure perpetual debt, as well as the efforts taken by the FSS to manage legal risks that might arise at the redemption date. However, the Assessment Team was of the view that not all legal risks around a potential redemption claim by investors at maturity date could be excluded. Given the clarity of the Basel requirement ("perpetual, ie there is no maturity date"), the Assessment Team was unable to recognise these instruments as completely equivalent to perpetual instruments. Further, it should be noted that requiring AT1 instruments to be strictly perpetual is a cornerstone defining the enhancement from Basel II to Basel III. This is to ensure that AT1 instruments bear features akin to common equity and rule out any market expectation that they could be redeemed at any time.

As part of its rectification action, the FSS introduced a new article in the Enforcement Decree of the Banking Act (EDBA)⁵, and deleted the reference to 30-year maturity in the DRSBB. The FSS explained to the Assessment Team that this new article in the EDBA (a governing law of the RSBB and the DRSBB), would allow Korean banks to issue contingent capital instruments without any reference to an explicit maturity date in the debt term sheet. In contrast, such bonds are regarded as bearing an implicit maturity date aligned with the exercise of permanent write-down following the contingent trigger event (ie a bank's liquidation or bankruptcy). The FSS confirmed the Assessment Team's understanding that "implicit maturity" upon PONV confers no right to repayment and it is simply the term used to confirm that the instrument no longer exists as a result of the write-down/conversion. In this regard, the Assessment Team found the rectification action proposed by the FSS satisfactory.

Notwithstanding, while the textual deviation has been addressed in the revised version of the Detailed Regulation on Supervision of Banking Business (DRSBB), the Assessment Team noted that there

⁵ Newly issued Article 19 of EDBA: "Where a bank issues financial bonds pursuant to article 33(2)-(4) of the Banking Act (herein after "contingent convertible bonds"), the bond's maturity date may be set as the date on the bank's liquidation or bankruptcy."

remains a considerable amount of outstanding previous issuances of ineligible AT1 instruments with a 30-year maturity date. As of December 2018, the impact remains material for two Korean banks, with the most affected bank having an outstanding issuance of 0.62% of its total RWAs (ie an overstatement of capital ratio by 62 bp) and a weighted average impact of 0.17% of the total RWAs (ie an overstatement of capital ratio by 17 bp) of the sample banks. Following the RCAP on-site review in February 2016, the FSS has prohibited banks from issuing such instruments and the Assessment Team anticipated that the impact would be reduced over time as the FSS may ask banks to redeem the outstanding ineligible AT1 instruments upon the call date. However, the Assessment Team is cognisant that the risk of such instruments being recognised as Tier I capital until 2025 cannot be fully ruled out.

Capital buffers (conservation and countercyclical)

There is no material finding in this section. The Korean rule is considered compliant with the Basel standards.

Credit risk: Standardised Approach

With regard to this component, the Korean rules, specifically the DRSBB, are considered compliant. In order to achieve this result, a number of rectifications were made, which left no material deviation in this section. However, two remaining deviations are considered potentially material. The first one relates to the definition of residential mortgage loans eligible for a 35% risk weight, which the domestic regulations define, among other criteria, as residential houses that are "owned" by the borrowers, as opposed to those that are "occupied" by the borrowers as stated in the Basel standards. The second finding relates to the risk weight treatment of commercial real estates (CRE), where the domestic regulations make it possible for certain types of CRE to attract a risk weight below 100%, deviating from the Basel requirements.

Credit risk: Internal Ratings-Based Approach

The Assessment Team considers the implementation by the FSS of the Internal Ratings-Based (IRB) approach for credit risk to be compliant with the Basel framework. Currently, the majority of the Korean banks implemented the IRB approach (11 out of 17 Korean banks).

During the assessment process, the Assessment Team identified a number of deviations, the majority of which were subsequently rectified by the FSS (see Annex 6). Following the rectifications by the FSS, only one potentially material deviation remains with regard to the "owner-occupier" criteria, which is part of the criteria under the Basel requirement for a loan to be treated as a retail residential mortgage.

The Assessment Team also noted one observation with regard to the long phased roll-out as well as the permanent partial use exemptions for various types of credit exposures in the IRB approach for credit risk. Specifically, certain credit exposures are permitted to be under phased roll-outs, since up to six or seven years, certain specific types of credit exposure are allowed to be permanently exempted from the application of the IRB approach, including exposures to sovereigns and banks, without any aggregate ceiling, under Korean regulation. Based on the data provided by FSS, the permanent exemptions/partial use were found to be material both in terms of size and perceived risk profile. During the assessment process, the FSS carried out satisfactory amendments to its regulation to bring its rules into line with the Basel framework. The Assessment Team acknowledges that, with these changes and corresponding enforcement in 2016, the observed material deviations will gradually cease to exist in practice among the Korean banks.

Credit risk: Securitisation framework

The Korean rule implementing the securitisation framework is considered compliant with the Basel standards. The Assessment Team identified two non-material findings related to descriptions of qualitative

standards. While the Assessment Team acknowledges that these requirements are included in the "Detailed guidelines for calculating risk weighted asset of securitisation exposures", these guidelines are not a legally binding regulation and cannot be considered for RCAP purposes. Notwithstanding, the Assessment Team noted that this guideline was published by the FSS and continues to be officially used as a manual for guiding ongoing supervisory reviews. As this requirement is implemented in practice, the findings in this section are not considered material.

Counterparty credit risk framework

Overall, the Assessment Team considers the counterparty credit risk framework compliant. According to Korean rules, all three approaches specified by the Basel framework to measure counterparty credit risk (CCR) exposures can be adopted by banks. The rules for these three approaches, and both approaches for credit valuation adjustment (CVA) risk, were specified by the FSS in their local regulations. Similarly, the rules on capital requirements for bank exposures to central counterparties were also captured in the DRSBB, in accordance with the Basel framework. Currently, banks use the Current Exposure Method for CCR regulatory reporting purposes.

The Assessment Team also noted the CCR risk-weighted assets (RWAs) were relatively small in relation to total RWAs (approximately 2% of the total RWAs of KRW 1,426.1 trillion as at December 2015). The FSS is in the process of incorporating the new Standardised Approach for Counterparty Credit Risk (SA-CCR) into its local regulation.

Market risk: Standardised Measurement Method

The Standardised Measurement Method (SMM) for market risk is compliant with the Basel framework. In general, Korean banks with daily trading assets exceeding KRW 100 billion are subject to the market risk framework issued by the FSS. The Assessment Team noted that the RWA value attributed to the SMM is relatively small in relation to total RWAs. SMM RWA currently represent approximately 1% of total RWAs.

Market risk: Internal Models Approach

The Internal Models Approach (IMA) for market risk is compliant with the Basel framework. The Assessment Team noted that RWAs attributed to the IMA approach for market risk are relatively small in relation to total RWAs. IMA RWAs for market risk (KRW 43.4 trillion) currently represents approximately 3.25% of total RWAs of all 17 banks as of end-2015 (KRW 1,426.1 trillion).

Operational risk: Basic Indicator Approach, Standardised Approach, and Advanced Measurement Approaches

The Korean rules for operational risk are consistent with the Basel framework, and as such are considered compliant. No deviation from the Basel requirements was identified by the Assessment Team. In a few areas, the rules are more conservative than required by the Basel standards (see Annex 10 for more details).

The Basel framework allows three approaches to calculating the capital requirements for operational risk, namely: the Basic Indicator Approach (BIA), the Standardised Approach (TSA) or its variant the Alternative Standardised Approach (ASA) and the Advanced Measurement Approaches (AMA). Korean regulations allow banks to adopt the BIA, TSA and the AMA for calculating capital requirements for operational risk. The FSS does not allow banks to adopt the ASA (a national discretion in Basel II paragraph 652, footnote 132).

Supervisory review process

The RCAP assessment of the supervisory review process covers the adoption of prescribed standards under Pillar 2 of the Basel II framework and the Supplementary Pillar II Guideline.

The Korean Pillar 2 framework is considered compliant with the Basel framework as the domestic rules are in line with the Basel expectations on Pillar 2. The Assessment Team identified only one finding as not material.

Disclosure requirements

The Basel Pillar 3 requirements for market discipline, the disclosure requirements for remuneration and disclosure requirements for capital were sufficiently reflected through domestic regulations, and as such are considered compliant. The Assessment Team detected two deviations from the Basel requirements but both are assessed as not material.

2 Detailed assessment findings

The component-by-component details of the assessment of compliance with the risk-based capital standards of the Basel framework are set out below. The focus of Sections 2.1 to 2.5 is on findings that were assessed to be deviating from the Basel minimum standards and their materiality. Section 2.6 lists some observations and other findings specific to the implementation practices in Korea.

2.1 Scope of application

Section grade	Compliant
Summary	<p>The Korean rules on scope of application are considered compliant with the Basel standards.</p> <p>As a general matter, the Basel III capital framework should apply on a fully consolidated basis to all internationally active banks at every tier within a banking group, and to any bank holding company that is the parent entity within a banking group, to ensure that the requirements capture the risk of the whole banking group. The Korean rules apply the Basel framework to all banks on both a standalone and a consolidated basis and align consolidation with the Korean International Financial Reporting Standards (K-IFRS). If the bank is majority-owned by a holding company, the capital regulation will be applied at the holding company level that scopes in all financial subsidiaries of the holding company, excluding insurance companies. In Korea, five of the sample banks, namely, Kookmin, Shinhan, Nonghyup, Hana and Kyongnam, apply such a holding structure.</p>

2.2 Transitional arrangements

Section grade	Materially non-compliant
Summary	<p>The transitional arrangements component is assessed as materially non-compliant with the Basel standards, largely driven by one material finding. Specifically, the FSS allows banks to recognise instruments without principal loss-absorption features issued between January until November 2013, to be eligible for transitional arrangements until end-2022. The Basel framework requires that such instruments be derecognised after 1 January 2013.</p>
Basel paragraph no	Basel III paragraph 94(g)
Reference in domestic regulation	DRSBB addenda 3(1)/(2)
Findings	Basel III requires that capital instruments that no longer qualify as non-common equity Tier 1 capital or Tier 2 capital must be phased out beginning 1 January 2013. As the DRSBB's enforcement date is 30 November 2013, until then, relevant disqualified capital instruments were not phased out. In addition, the cut-off date related to the different treatment of disqualified capital instruments with a call option differs from the Basel standard in a similar way.
Materiality	<p>Not material.</p> <p>Despite the different entry point of transitional arrangements, DRSBB aligns the phase-out timing with that of Basel III starting from December 2013. Regarding the cut-off date related to instruments with call options, the Assessment Team noted that such instruments have either ceased to exist or been replaced by fully compliant ones. Therefore, the outstanding impact of the textual difference is reduced to none, and</p>

	there will not be any likelihood of potential impact in future. This finding is thus considered not material.
Basel paragraph no	Minimum requirements to ensure loss absorbency at the PONV – Transitional arrangement
Reference in domestic regulation	DRSBB Addenda 3
Findings	The Basel text requires that all instruments issued after 1 January 2013 must be compliant with the PONV requirement. Otherwise, full derecognition is required. As the enforcement date of DRSBB is 30 November 2013, the issuances between January 2013 and 30 November 2013 are allowed for grandfathering until November 2023 instead of immediate full derecognition after 1 January 2013.
Materiality	Material. For the purpose of assessing materiality, the Assessment Team took December 2018 as the reference date, ie the end of the phased-in period of the Basel III for capital deductions. As of December 2018, seven banks had outstanding issuances of Tier I and Tier II instruments that were issued during the period of January–November 2013 and which amounted to KRW 0.8 trillion and KRW 2.3 trillion, respectively. The most affected bank had an outstanding issuance that formed 0.71% of its total RWAs or a 71 bp overstatement of its capital ratio, and the weighted average impact of these issuances to seven banks' RWAs was 0.34% (34 bp).

2.3 Pillar 1: Minimum capital requirements

2.3.1 Definition of capital

Section grade	Largely compliant
Summary	The Korean framework of the definition of capital requirements is assessed as largely compliant with the Basel Framework. In the course of the assessment, the Assessment Team identified a number of deviations that were largely rectified by the FSS (see Annex 6). There is one deviation that leads to the largely compliant grading of the component. While Basel III explicitly requires Additional Tier 1 (AT1) instruments to be perpetual, DRSBB allows an instrument with a minimum 30-year maturity with an automatic rollover to be recognised as perpetual and thus as Additional Tier I capital.
Basel paragraph no	Basel III paragraph 55(4)
Reference in domestic regulation	DRSBB Annex 3 6B(a)(m)
Findings	While Basel III requires additional Tier I instruments to be perpetual, ie with no maturity date, under Korean rules, instruments with an initial maturity date of a minimum of 30 years combined with an embedded rollover clause can be viewed as perpetual and are then eligible for AT1 capital. This was deliberately implemented by the Korean authorities to accommodate the legal constraint introduced by the Korean Commercial Act that requires all debt instruments to have a maturity date. After a careful review of this alternative structure, particularly the operational mechanism of the automatic rollover feature at the maturity date, the Assessment Team acknowledged the similarity between this structure and a pure perpetual debt, as well as the efforts taken by the FSS to manage legal risks that might arise at the redemption date. However, the Assessment Team was of the view that not all legal risks around a potential redemption claim by investors at maturity date could be excluded. Given the clarity of the Basel requirement ("perpetual, ie there is no maturity date"), the Assessment Team was unable to recognise these instruments as completely equivalent to perpetual instruments. Further, it should be noted that requiring AT1 instruments to be strictly perpetual is a cornerstone that defines the

	<p>enhancement from Basel II to Basel III. This is to ensure that AT1 instruments bear features akin to common equity and rule out any market expectation that they could be redeemed at any time.</p> <p>As part of its rectification action, the FSS introduced a new article in the EDBA, in addition to the deletion of the reference to a 30-year maturity in the DRSBB. The Assessment Team was given to understand by the FSS that this new article in the EDBA (a governing law of the RSBB and the DRSBB), would allow Korean banks to issue contingent capital instruments without any reference to an explicit maturity date in debt term sheet. In contrast, such bonds are regarded as bearing an implicit maturity date aligned with the exercise of permanent write-down following the contingent trigger event (ie a bank's liquidation or bankruptcy). The FSS confirmed the Assessment Team's understanding that the "implicit maturity" upon PONV confers no right to repayment and it is simply the term used to confirm that the instrument no longer exists as a result of the write-down/conversion. In this regard, the Assessment Team found the rectification action proposed by the FSS satisfactory.</p> <p>Notwithstanding, while the textual deviation has been addressed in the revised version of the DRSBB, the Assessment Team noted there is a considerable amount of outstanding previous issuances of ineligible AT1 instruments with a 30-year maturity date (legacy issue – see "Materiality" section below).</p>
Materiality	<p>Material.</p> <p>As of December 2018, the impact remains material, affecting two Korean banks, with the most affected bank having an outstanding issuance of 0.62% of its total RWAs (ie an overstatement of its capital ratio by 62 bp) and the weighted average impact is 0.17% of total RWAs (ie an overstatement of the capital ratio by 17 bp) of the sample banks. Following the RCAP on-site review in February 2016, the FSS has prohibited banks from issuing such instruments and the Assessment Team anticipated that the impact would be reduced over time as the FSS may ask banks to redeem the outstanding ineligible AT1 instruments at the call dates. However, the Assessment Team is cognisant that the risk of such instruments being recognised as Tier I capital until 2025 cannot be fully ruled out.</p>
Basel paragraph no	Basel III paragraphs 55(14), 65
Reference in domestic regulation	DRSBB Annex 3 6A(2)
Findings	<p>The Basel III standard requires that, if the instrument is not issued by an operating entity or the holding company in the consolidated group (eg a special purpose vehicle – "SPV"), the proceeds must be immediately available without limitation to an operating entity or the holding company in the consolidated group in a form which meets or exceeds all of the other criteria for inclusion in Additional Tier 1 capital. To ensure this requirement is fulfilled, there should be a funding agreement to facilitate transfer of proceeds between the bank and the issuer that satisfies relevant Additional Tier I or Tier II criteria. This is to ensure that, in addition to the proceeds upstream from the SPV to the bank, the relevant eligible criteria should equally govern the contract of that upstream. Korean rules do not explicitly include these criteria.</p>
Materiality	<p>Not material.</p> <p>The Assessment Team noted that there is no SPV-like issuance in Korea to date and the market incentive for such a structure is very low in future.</p>

2.3.2 Capital buffers (conservation and countercyclical)

Section grade	Compliant
Summary	The Korean capital framework is assessed as compliant with the Basel III capital framework with regard to the capital buffers. All banks in Korea are required to

	implement the capital conservation and countercyclical buffer above the minimum capital requirement.
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2.3.3 Credit risk: Standardised Approach

Section grade	Compliant
Summary	The FSS has implemented the national provisions in line with the Basel standard. The Assessment Team identified a number of deviations, the majority of which have subsequently been rectified by the FSS (see Annex 6). Notwithstanding, there are three remaining deviations, two are considered potentially material and one is not material.
Basel paragraph no	Basel II Paragraph 58, footnote 23
Reference in domestic regulation	N/A
Findings	Basel II paragraph 58, footnote 23 (third bullet point) states that PSEs that are commercial undertakings in nature should be considered as corporates. This requirement is missing in the Korean regulations. As a result, Korean banks may inadvertently apply preferential risk weighting to exposures to PSEs that are commercial undertakings in nature.
Materiality	Not material. The FSS advised that, at present, all PSEs that are commercial undertakings in nature are in fact risk-weighted as corporates.
Basel paragraph no	Basel II paragraph 72
Reference in domestic regulation	DRSBB provision 40A
Findings	DRSBB 40A requires a residential house to be "owned" instead of "occupied" by the borrower, as stated in the Basel requirement as one of the criteria for the mortgage concerned to be considered a residential mortgage loan eligible for a 35% risk weight. The Assessment Team is of the view that "owning" is not necessarily the same as "occupying" because a borrower can own a residential house without occupying, if the property was purchased for other reasons, eg speculative purposes.
Materiality	Potentially material. The FSS advised that speculation in the property market is discouraged in Korea. Besides, the data provided by the FSS indicated that residential mortgage loans eligible for a 35% risk weight were secured by properties which are occupied, will be occupied, or rented, in line with the Basel requirement. However, given that only one standardised bank is covered in the sample and that there may potentially be some changes to the Basel standards on the standardised approach, this issue should be monitored going forward and the deviation is considered potentially material. There is a similar deviation in the context of the IRB approach, which is discussed in the next section (Section 2.3.4).
Basel paragraph no	Basel II paragraph 74
Reference in domestic regulation	DRSBB provision 41A
Findings	Basel II paragraph 74 states that mortgages on CRE do not, in principle, justify other than a 100% weighting of the loans secured. Depending on the type of collateral (empty building site etc), DRSBB provision 41A states that the applicable risk weight shall be that of an exposure without such a collateral (ie the risk weight shall be that of the counterparty concerned) or 100%, whichever is lower. This allows the possibility of a risk weight below 100% being applied to mortgages on CRE.
Materiality	Potentially material.

	FSS advised that the sampled bank applies 100% risk weights to all exposures secured by CRE in line with Basel's requirement. However, given that only one standardised bank is covered in the sample and that there may potentially be some changes to the Basel standards on the standardised approach, this issue should be monitored and the deviation is considered potentially material.
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2.3.4 Credit risk: Internal Ratings-Based Approach

Section grade	Compliant
Summary	<p>The Assessment Team assesses the FSS's implementation of the IRB approach to be compliant. In the course of the assessment, the RCAP team identified a number of deviations in relation to permanent partial use, qualifying revolving retail exposures (QRRE), acquisition, development and construction (ADC) exposures etc, but these were all satisfactorily rectified by the FSS (see Annex 6).</p> <p>Similar to the finding raised under the standardised approach (Section 2.3.3), the Korean regulation does not specify the "owner-occupier" criteria for a loan to be treated as residential mortgage loans under retail.</p>
Basel paragraph no	Basel II paragraph 231
Reference in domestic regulation	DRSBB [Annex 3] 116-6 A. (2)
Findings	<p>Basel paragraph 231 allows for an exposure to be categorised as a retail exposure, if it meets all of the three specified criteria. The second criteria states:</p> <p>"Residential mortgage loans (including first and subsequent liens, term loans and revolving home equity lines of credit) are eligible for retail treatment regardless of exposure size so long as the credit is extended to an individual that is an <u>owner-occupier</u> of the property. Loans secured by a single or small number of condominium or co-operative residential housing units in a single building or complex also fall within the scope of the residential mortgage category. National supervisors may set limits on the maximum number of housing units per exposure.</p> <p>Korean regulation does not specify the "owner-occupier" criteria for a loan to be treated as residential mortgage loan under retail. The FSS clarified that, in Korea, banks manage residential mortgage loans to individuals under same credit policies and standards whether the property is owner-occupied or not. The credit assessment of these mortgages is based on the individuals' independent repayment capacity, such as strict debt-to-income and conservative loan-to-value ratios.</p> <p>The Assessment Team is of the view that the owner-occupier criterion is an essential condition for residential mortgage loans to be treated as retail and qualify for the relatively low correlation factor under IRB. In the absence of this criterion, such exposures should not be treated as retail as per the Basel Framework but instead categorised under the corporate asset class,</p>
Materiality	<p>Potentially material</p> <p>Based on the data submitted by FSS, the Assessment Team noted that the overstatement of the capital ratio of the most affected bank and the capital ratio of the weighted average of sample banks was not material. However, the risk of potential further increase of such exposures in the future cannot be ruled out.</p>

2.3.5 Securitisation framework

Section grade	Compliant
Summary	<p>The minimum capital requirements for the Securitisation framework set forth in Korean regulation and guidance notes are assessed as compliant with the Basel framework. There are some minor findings noted in relation to the detailed qualitative standards as outlined below.</p>

Basel paragraph no	Basel II paragraph 584
Reference in domestic regulation	DRSBB Annex 3 214B
Findings	Basel II requires banks as credit protection providers to hold and calculate capital for the covered exposure, and states that protection to unrated credit enhancements should be treated as a direct holding. Under the Korean rules, the wording "calculate a capital requirement" and "the treatment of protection to unrated credit enhancement" were not explicitly stated.
Materiality	<p>Not material.</p> <p>The FSS issued <i>Detailed guidelines for calculating risk-weighted assets of securitisation exposures</i>, which include detailed requirements in line with the Basel standard. While the Assessment Team acknowledges that these requirements are included in the guideline, the guideline is not a legally binding regulation and cannot be considered for RCAP purposes. Notwithstanding, the Assessment Team noted that this guideline was published by the FSS and continues to be officially used as a manual to guide ongoing supervisory review. As this requirement is implemented in practice, the findings in this section are not considered as material.</p>
Basel paragraph no	Basel II paragraph 606
Reference in domestic regulation	DRSBB Annex 3 216A
Findings	The Basel standard prescribes that banks may not use the IRB approach to securitisation unless they receive approval to use the IRB approach for the underlying exposures from their national supervisors. This provision is not transposed into the Korean regulation.
Materiality	<p>Not material.</p> <p>The FSS issued <i>Detailed guidelines for calculating risk-weighted assets of securitisation exposures</i>, which include detailed requirements in line with the Basel standard. While the Assessment Team acknowledges that these requirements are included in the guideline, the guideline is not a legally binding regulation and cannot be considered for RCAP purposes. Notwithstanding, the Assessment Team noted that this guideline was published by the FSS and continues to be officially used as a manual to guide ongoing supervisory review. As this requirement is implemented in practice, the findings in this section are not considered as material.</p>

2.3.6 Counterparty credit risk framework

Section grade	Compliant
Summary	The implementation of the treatment of counterparty credit risk framework was found to be compliant with the Basel standard. The Assessment Team identified a number of deviations, all of which have subsequently been rectified by the FSS (see Annex 6).

2.3.7 Market risk: Standardised Measurement Method

Section grade	Compliant
Summary	The Korean requirements for the Standardised Measurement Method for market risk are compliant with the Basel framework. In general, Korean banks with daily trading assets exceeding KRW 100 billion are subject to the market risk framework issued by the FSS. Additionally, whilst there is no reference to trusts with guaranteed capital protection and investment yield (ie pension savings trust) in the Basel framework, this is considered to be a trading position under domestic regulation. Furthermore, whereas the Basel framework merely expects that banks that write options (ie that sell options and therefore hold a short position in options) to use one of the intermediate

	approaches as a treatment for options risk, the FSS prohibits the use of the simplified approach for those banks completely. The FSS requires that banks with negligible business in foreign currency still calculate capital on those positions. The Assessment Team also noted that the RWA value attributed to the SMM is relatively small in relation to total RWAs. SMM RWAs currently represent approximately 1% of total RWAs.
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2.3.8 Market risk: Internal Models Approach

Section grade	Compliant
Summary	<p>The Korean requirements for the Internal Models Approach (IMA) for market risk are compliant with the Basel Framework. The Assessment Team identified a number of deviations, all of which have subsequently been rectified by the FSS (see Annex 6).</p> <p>Korean banks whose daily trading assets exceed KRW 100 billion are subject to the market risk framework. The Assessment Team also noted that RWAs attributed to the IMA approach for market risk are relatively small in relation to total RWAs. IMA RWAs for market risk (KRW 43.4 trillion) currently represent approximately 3.25% of the total RWAs of all 17 banks as of end-2015 (KRW 1,426.1 trillion).</p>

2.3.9 Operational risk: Basic Indicator Approach and the Standardised Approach

Section grade	Compliant
Summary	<p>The implementation of the BIA and the Standardised Approach for operational risk was found to be compliant with the Basel standard. Only one deviation was identified by the Assessment Team in this section, which has been satisfactorily rectified by the FSS.</p> <p>Korean regulations allow banks to adopt the Basic Indicator Approach (BIA), the Standardised Approach (TSA) and the Advanced Measurement Approaches (AMA) for calculating capital requirements for operational risk. The FSS does not allow banks to adopt the Alternative Standardised Approach (a national discretion in Basel II paragraph 652, footnote 132).</p>

2.3.10 Operational risk: Advanced Measurement Approaches

Section grade	Compliant
Summary	<p>The implementation of the AMA for operational risk was found to be compliant with the Basel standard. No deviation was identified by the Assessment Team in this section. At the time of the assessment, five Korean banks applied AMA for calculating capital requirements for operational risk. All of them are part of the RCAP sample banks (see Annex 9).</p>

2.4 Pillar 2: Supervisory review process

Section grade	Compliant
Summary	<p>The implementation of the Pillar 2 provisions was found to be compliant with the Basel standard.</p> <p>The Basel pillar 2 requirements are implemented into Korean law mainly through the DRSBB [Appendix 3-9] and the Guidelines on Governance Structure for Financial Companies (GGSFC), chapter V. The Pillar 2 requirements in the GGSFC and the DRSBB came into effect in December 2014 and July 2015, respectively. At the time of the assessment, the FSS were in the process of implementing the new Pillar 2 framework and their effectiveness will require the FSS and the banks to build up</p>

	further experience. The only issue raised by the AT deals with the legal bindingness and enforceability of the GGSFC, which will be formally enacted as the Act on Governance Structure of Financial Companies (AGSFC) by August 2016. A similar issue was also raised in Section 2.5.
Basel paragraph no	Supplemental Pillar 2 Guidance paragraphs 84–94
Reference in domestic regulation	Guidelines on Governance Structure for Financial Companies
Findings	The Basel Supplemental Pillar 2 Guidance paragraphs 84–94, which deal with sound compensation practices, are implemented into Korean law through GGSFC, chapter V. The GGSFC are provided by the FSC and, as far as the RCAP team learnt during the on-site visit, this guideline is not part of the Banking Act, Enforcement Decree or other Korean regulation. Thus, the Assessment Team concluded that the legal bindingness and enforceability of the GGSFC are questionable. According to the FSS, there has not been any violation of the GGSFC by banks. Notwithstanding, the Assessment Team noted that the GGSFC will be superseded by the "Act on Governance Structure of Financial Companies" in August 2016 – which will be legally binding.
Materiality	Not material. As the GGSFC will be replaced by legally binding rules in due course and apparently all banks in Korea as well as the FSS and the FSC regarded the GGSFC as legally binding, the Assessment Team decided to grade this observation as not material.

2.5 Pillar 3: Market discipline

Section grade	Compliant
Summary	The Basel Pillar 3 requirements for market discipline, the disclosure requirements for remuneration and disclosure requirements for capital were sufficiently reflected through domestic regulations and assessed as compliant with the Basel standard. The Assessment Team identified a number of deviations, the majority of which have subsequently been rectified by the FSS (see Annex 6). The disclosure requirements for remuneration are implemented through the GGSFC, Chapter VI and the "Criteria for Drafting Annual Corporate Governance Reports" (published by the KFB), for which the legal bindingness and enforceability is regarded as questionable in both cases. Notwithstanding, the Assessment Team is cognisant that the relevant Pillar 3 provisions in GGSFC will be formally enacted as the AGSFC, while the new Regulation of Governance Structure of Financial Companies (RGSC) will explicitly delegate the authority of setting detailed contents on the disclosure of remuneration to the KFB by August 2016.
Basel paragraph no	Pillar 3 disclosure requirements for remuneration
Reference in domestic regulation	Guidelines on Governance Structure for Financial Companies (GGSFC) Criteria for Drafting Annual Corporate Governance Reports
Findings	The disclosure requirements for remuneration are implemented through the GGSFC, chapter VI, which are provided by the FSC and the "Criteria for Drafting Annual Corporate Governance Reports", which are provided by the KFB. The legal bindingness and enforceability of the GGSFC and the "Criteria for Drafting Annual Corporate Governance Reports" are questionable, as there is no legal act or enforcement decree that authorises the FSC or the KFB, respectively, to publish these documents. According to the FSS, a review of disclosure reports of all domestic banks in 2015 showed that the banks followed the mentioned guidelines and criteria.

	On 1 August 2016, the GGSFC will be superseded by the Act on Governance Structure of Financial Companies and a corresponding enforcement decree and regulation. At the time of the on-site assessment, the Korean authorities were still working on the revisions of the enforcement decree and regulation that will explicitly delegate the authority of setting detailed contents on the disclosure of remuneration to the KFB.
Materiality	Not material. As the GGSFC will be replaced by legally binding rules in due course and as apparently all banks in Korea as well as the FSS and the FSC regard the GGSFC and the "Criteria for Drafting Annual Corporate Governance Reports" as legally binding, the Assessment Team decided to grade this observation as not material.
Basel paragraph no	Pillar 3 disclosure requirements for capital paragraph 31
Reference in domestic regulation	IUDFS Chapter 5 II.13.E
Findings	The Basel text requires that, if a bank discloses capital ratios other than the regulatory capital ratio, it should accompany the disclosure with methodology of calculating these figures. This is not explicitly required in the Korean domestic regulation.
Materiality	Not material. As there might be capital ratios based on requirements (eg based on different accounting standards, or jurisdiction-specific requirements) other than the regulatory ratio, the intent of the Basel requirement was to clear up potential confusion by requiring banks to disclose the underlying methodology if more than one capital ratio is being disclosed. As the FSS has confirmed that there is no such additional disclosure requirement other than the regulatory capital ratio imposed by the FSS, the Assessment Team assessed this finding as not material.

2.6 Observations and other findings specific to the implementation practices in Korea

The following observations highlight certain special features of the regulatory implementation of the Basel standards in Korea. These are presented for contextual and informational purposes. Observations are considered fully compliant with the Basel standard and do not have a bearing on the assessment outcome.

2.6.1 Definition of capital

Basel paragraph no	Basel III paragraphs 57(4), 60, 61
Reference in domestic regulation	DRSBB Annex 3 7A(4)
Observation	Basel III allows certain loss provisions to be included in Tier 2, excluding provisions ascribed to identified deterioration of particular assets or known liabilities. The corresponding Korean rule is more granular than the Basel requirement, based on a classification under which those ascribed to "normal" and "precautionary" assets are included, while those covering substandard assets are excluded from Tier 2. The FSS has confirmed that only the amount related to the minimum provisioning related to the first two best asset classes would be recognised in Tier II capital.

2.6.2 Credit risk: Standardised Approach

Basel paragraph no	Basel II paragraphs 58, 60–62
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Reference in domestic regulation	DRSBB [Appendix 3] 32A, 35A
Observation	<p>The Basel standard requires claims on banks to be risk-weighted by either (a) one category less favourable than the sovereign of that country, or (b) the external credit assessment of the bank itself. In this context, the Korean domestic regulation (paragraph 32 of the DRSBB) specifies the risk weight treatment for domestic PSEs. In particular, paragraph 32A of the DRSBB specifies that a subgroup of domestic PSEs shall be risk-weighted as sovereigns.</p> <p>In the other relevant section of the Korean domestic regulation (paragraph 35 of the DRSBB), the AT noted a provision that allows banks classified as domestic PSEs to be risk-weighted as sovereigns under paragraph 32 of the DRSBB ("excluding banks classified as domestic PSEs under the provision of 32 above"). As a result of these two provisions under the DRSBB, three policy banks (namely the Korea Development Bank, the Export & Import Bank of Korea, and the Industrial Bank of Korea) are risk-weighted as sovereigns.</p> <p>Following the finding raised by the Assessment Team, the FSS has rectified this finding. More specifically, the provision in paragraph 35 of the DRSBB that allows PSE banks to be risk-weighted as sovereigns was deleted.</p> <p>While the textual deviations no longer exist following the rectification made by the FSS, the AT is of the view that further clarity should be introduced in paragraph 32 of the DRSBB. While the word "banks" is not explicitly referenced in paragraph 32 of the DRSBB, the fact that paragraph 35 previously stated "excluding banks classified as domestic PSEs under the provision of 32 above" may imply that some Korean banks are captured under the paragraph 32 of the DRSBB, by virtue of the language used. Further, it is the understanding of the AT that the three policy banks are now subject to the risk-weighting for banks.</p>

2.6.3 Credit risk IRB

Basel paragraph no	Basel II paragraphs 256–260
Reference in domestic regulation	DRSBB [Appendix 3] 114–115
Observation	<p>Basel paragraph 256 read with paragraph 258 and paragraph 259 specifies that, once a bank adopts an IRB approach for part of its holdings, it is expected to extend it across the entire banking group. As such, supervisors may allow banks to adopt a phased roll-out of the IRB approach across the banking group. However, a bank must produce an implementation plan, specifying to what extent and when it intends to roll out the IRB approaches across significant asset classes and business units over time. The plan should be exacting yet realistic, and must be agreed with the supervisors. Further, some exposures in non-significant business units as well as asset classes (or subclasses in the case of retail) that are immaterial in terms of size and perceived risk profile may be exempted from the above requirements, subject to supervisory approval. Capital requirements for such operations will be determined according to the standardised approach, with the national supervisor determining whether a bank should hold more capital under Pillar 2 for such positions.</p> <p>The mapped paragraphs 114 and 115 of DRSBB state that every bank shall apply the IRB approach to all exposures (except exposures to CCPs). In cases where a bank applies the IRB approach phase by phase, it shall establish and implement a plan for the introduction of the IRB approach and the application method, subject to prior consultation with FSS. The period to starting the phased application shall not be more than three years. However, in cases where implementation is difficult within such a period due to reasons beyond the control of the relevant bank, the period may be extended after prior consultation with the FSS. Further, if the credit risk-weighted assets</p>

	<p>for a specific type of exposure or for a specific business division do not exceed 15% of the aggregate of credit risk-weighted assets of a bank, it shall segregate such an exposure and calculate the credit risk-weighted assets by the standardised approach, subject to prior consultation with FSS. Notwithstanding the above provision, the standardised approach may be applied to sovereign and bank exposures (including public sector entities).</p> <p>As is apparent from the Korean regulation, in addition to a phased roll-out, certain specific types of exposure are permitted to be permanently exempted from the application of the IRB approach if each of that category of exposures meets the criteria of a 15% threshold of the aggregate of the credit risk-weighted assets of the bank. This is in addition to exposures to sovereigns and banks that may be treated under the standardised approach. Further, there is no prescribed aggregate threshold limit up to which exposures can be exempted from application of the IRB approach. It is therefore apparent that the permanently exempted exposures are rather high and cannot be treated as immaterial in terms of size and perceived risk profile.</p> <p>As per the data provided by banks, the aggregate risk-weighted assets exempted from the IRB application for seven IRB banks ranged from 12.4% to 31.3% of total credit risk-weighted assets and 11.2% to 28.8% of the total risk-weighted assets of those banks. They were thus found to be material in terms of both size and perceived risk profile among the sample banks.</p> <p>Following the finding raised by the Assessment Team, the FSS has carried out suitable changes in its regulation to bring it into line with Basel framework. The Assessment Team acknowledges that, with these changes and corresponding enforcement in 2016, the observed material deviations will gradually cease to exist in practice among the Korean banks.</p>
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2.6.4 Counterparty credit risk framework

Basel paragraph no	Basel II paragraph 4 of Annex 4, footnote 238
Reference in domestic regulation	No reference provided. This footnote is excluded from the DRSBB.
Observation	Paragraph 4, footnote 238, in respect of scope of application under Annex 4 inter alia suggests that transactions for which the probability of default is defined on a pooled basis are not included in this treatment of CCR. This is applicable to transactions that are undertaken with an identified counterparty against which a unique probability of default can be determined. The DRSBB does not include the requirement of this footnote. The FSS indicated that this footnote merely clarifies the meaning of the paragraph.
Basel paragraph no	Basel II paragraph 38 of Annex 4, footnote 241
Reference in domestic regulation	No reference provided. This footnote is excluded from the DRSBB.
Observation	Footnote 241 indicates that, conceptually, M equals the effective credit duration of the counterparty exposure. A bank that uses an internal model to calculate a one-sided CVA can use the effective credit duration estimated by such a model in place of the above formula with prior approval of its supervisors. This footnote is not included in the DRSBB under the Internal Models Method framework (IMM). The FSS indicated that this, in principle, should apply whether or not it is included in the domestic regulation. Furthermore, the FSS indicated that this would be taken into account through the IMM approval processes. There are currently no banks with IMM approval for counterparty credit risk regulatory reporting purposes.
Basel paragraph no	Basel III paragraph 101 (revised paragraph 423 of the Basel II text and paragraphs 29 and 58 of Annex 4).

Reference in domestic regulation	DRSBB Appendix 3 paragraph 291
Observation	<p>Basel text paragraph 423 indicates that each separate legal entity to which the bank is exposed must be separately rated. A bank must have policies acceptable to its supervisor regarding the treatment of individual entities in a connected group including circumstances under which the same rating may or may not be assigned to some or all related entities. Those policies must include a process for the identification of specific wrong-way risk for each legal entity to which the bank is exposed. Transactions with counterparties where specific wrong-way risk has been identified need to be treated differently when calculating the EAD for such exposures (see paragraph 58, Annex 4 of the Basel III).</p> <p>Paragraph 58, Annex 4 of the Basel III clearly indicates that a bank is exposed to "specific wrong-way risk" if future exposure to a specific counterparty is highly correlated with the counterparty's probability of default. For example, a company writing put options on its own stock creates wrong-way exposures for the buyer that are specific to the counterparty. A bank must have procedures in place to identify, monitor and control cases of specific wrong-way risk, beginning at the inception of a trade and continuing through the life of the trade. To calculate the CCR capital charge, the instruments for which there exists a legal connection between the counterparty and the underlying issuer, and for which specific wrong-way risk has been identified, are not considered to be in the same netting set as other transactions with the counterparty. Furthermore, for single-name credit default swaps where there exists a legal connection between the counterparty and the underlying issuer, and where specific wrong-way risk has been identified, EAD in respect of such swap counterparty exposure equals the full expected loss in the remaining fair value of the underlying instruments assuming the underlying issuer is in liquidation. The use of the full expected loss in the remaining fair value of the underlying instrument allows the bank to recognise, in respect of such swap, the market value that has been lost already and any expected recoveries. Accordingly, LGD for Advanced or Foundation IRB banks must be set to 100% for such swap transactions. For banks using the Standardised Approach, the risk weight to use is that of an unsecured transaction. For equity derivatives, bond options, securities financing transactions etc referencing a single company where there exists a legal connection between the counterparty and the underlying company, and where specific wrong-way risk has been identified, EAD equals the value of the transaction under the assumption of a jump-to-default of the underlying security. Inasmuch as this makes re-use of possibly existing (market risk) calculations (for IRC) that already contain an LGD assumption, the LGD must be set to 100%. Although these paragraphs are covered in the DRSBB, the references referred to within the DRSBB are incorrect. The FSS explained to the Assessment Team that this was due to a typo. This does apply to banks with approval to use the IMM for regulatory reporting purposes. There are currently no banks with approval to use the IMM for regulatory purposes.</p>

2.6.5 Operational risk – Partial Use

Basel paragraph no	Basel II paragraphs 680–683
Reference in domestic regulation	DRSBB [Appendix 3] 237.A.(2), C.
Observation	<p>Basel II paragraphs 680–683 allow banks to use an AMA for some parts of its operations and the BIA or TSA for the balance (partial use). In other words, the Basel standard only allows a combination of either AMA/BIA or AMA/TSA.</p> <p>Korean regulation allows banks to use a combination of BIA and TSA if at least 85% of the business activities subject to consolidation are covered by the TSA and the BIA applies to less than 5% of business activities. The use of BIA in such cases is limited to business activities of a subsidiary or an overseas branch.</p>

	<p>A combined use of BIA and TSA is subject to prior approval by the Governor. According to the FSS, the purpose of the partial use permission is to encourage qualified banks, including small banks, to use more sophisticated approaches than the BIA, with a view to encouraging them to improve their risk management. At the time of the RCAP assessment, three banks that applied the TSA were allowed to use the BIA for their subsidiaries and overseas branches.</p>
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Annex 2: Implementation of the Basel framework as of cut-off date

Overview of adoption of capital standards

Table 4

Basel III regulation	Date of issuance by BCBS	Transposed into Korean regulation	Date of implementation in Korea	Status
Basel II				
Basel II: International Convergence of Capital Measurement and Capital Standards: A Revised Framework – Comprehensive Version	June 2006	June 2007	January 2008	Green
Basel 2.5				
Enhancements to the Basel Framework Guidelines for computing capital for incremental risk in the trading book Revisions to the Basel II market risk framework	July 2009	February 2012	February 2012	Green
Basel III				
Basel III: A global regulatory framework for more resilient banks and banking systems – revised version	June 2011 (Consolidated version)	November 2013	December 2013	Green
Pillar 3 disclosure requirements for remuneration*	July 2011	February 2011*	February 2011	Green
Treatment of trade finance under the Basel capital framework**	October 2011	June 2007**	January 2008	Green
Composition of capital disclosure requirements	June 2012	November 2013	December 2013	Green
Capital requirements for bank exposures to central counterparties	July 2012	September 2014	September 2014	Green

Colour code: **Green** = implementation completed; **Yellow** = implementation in process; **Red** = no implementation.

Note:

* Korea published the disclosure requirements including remuneration to implement the FSB's "Principles for Sound Compensation Practices (April 2009)" and "Implementation Standards (September 2009)".

** Korea exercised its national discretion to waive the one-year maturity floor for certain trade finance instruments and applied Option 1 for exposures to banks from the implementation of Basel II (January 2008). Therefore, it was not necessary to reflect the corresponding Basel rule in domestic regulation.

Annex 3: List of capital standards under the Basel framework used for the assessment

- (i) *International Convergence of Capital Measurement and Capital Standards: A Revised Framework*, (Basel II), June 2006
- (ii) *Enhancements to the Basel II framework*, July 2009
- (iii) *Guidelines for computing capital for incremental risk in the trading book*, July 2009
- (iv) "Basel Committee issues final elements of the reforms to raise the quality of regulatory capital", Basel Committee, press release, 13 January 2011
- (v) *Revisions to the Basel II market risk framework: Updated as of 31 December 2010*, February 2011
- (vi) *Basel III: A global regulatory framework for more resilient banks and banking systems*, December 2010 (revised June 2011)
- (vii) *Pillar 3 disclosure requirements for remuneration*, July 2011
- (viii) *Treatment of trade finance under the Basel capital framework*, October 2011
- (ix) *Interpretive issues with respect to the revisions to the market risk framework*, November 2011
- (x) *Basel III definition of capital – Frequently asked questions*, December 2011
- (xi) *Composition of capital disclosure requirements: Rules text*, June 2012
- (xii) *Capital requirements for bank exposures to central counterparties*, July 2012
- (xiii) *Regulatory treatment of valuation adjustments to derivative liabilities: final rule issued by the Basel Committee*, July 2012
- (xiv) *Basel III counterparty credit risk – Frequently asked questions*, November 2011, July 2012, November 2012

Annex 4: Local regulations issued by Korean authorities for implementing Basel capital standards

Overview of issuance dates of important Korean capital rules

Table 5

Domestic regulations	Name of the document, version and date
Domestic regulations implementing Basel II	<p>Regulation on Supervision of Banking Business (RSBB) implemented on 28 June 2007 and in force from 1 January 2008</p> <p>Detailed Regulation on Supervision of Banking Business (DRSBB) [Appendix 3], implemented on 28 June 2007 and in force from 1 January 2008</p> <p>Detailed Supervisory Regulation on Financial Holding Companies (DSRFHC) [Appendix 1-2]. 3., implemented on 22 November 2013 and in force from 1 December 2013</p> <p>Instruction for Unified Disclosure for Financial Services (IUDFS) implemented on 27 July 2015 and in force from 1 January 2016</p>
Domestic regulations implementing Basel II.5	<p>DRSBB [Appendix 3] and [Appendix 3-2], implemented on 14 February 2012 and in force from 15 February 2012.</p> <p>DSRFHC [Appendix 1-2]. 3., implemented on 22 November 2013 and in force from 1 December 2013</p>
Domestic regulations implementing Basel III	<p>RSBB, [Appendix 2-10], [Appendix 2-11], implemented on 8 July 2013, 22 November 2013 and in force from 1 December 2013</p> <p>DRSBB [Appendix 3], [Appendix 3-5], implemented on 22 November 2013 and in force from 1 December 2013</p> <p>DRSBB [Appendix 21], implemented on 22 December 2015 and in force from 1 January 2016</p> <p>Regulation on Supervision of Financial Holding Companies (RSFHC), [Appendix 3-2], [Appendix 3-3], implemented on 22 December 2015 and in force from 1 January 2016</p> <p>DSRFHC [Appendix 5] implemented on 4 November 2014, in force from 1 December 2014.</p> <p>DSRFHC [Appendix 1-2], implemented on 22 November 2013 and in force from 1 December 2013</p> <p>IUDFS implemented on and in force from 30 January 2015</p>

Hierarchy of Korean laws and regulatory instruments

Table 6

Level of rules (in legal terms)	Type
Banking Act – issued by the National Assembly	Law
Enforcement Decree of Banking Act – issued by The President (the State Council)	Law
Regulation on Supervision of Banking Business (RSBB) – issued by the FSC	Regulation
Detailed Regulation on Supervision of Banking Business (DRSBB) – issued by the FSS	Regulation
Instruction for Unified Disclosure for Financial Services (IUDFS) – issued by the KFB	Regulation

Annex 5: Details of the RCAP assessment process

A. Off-site evaluation

- (i) Completion of a self-assessment questionnaire by Korean authorities
- (ii) Evaluation of the self-assessment by the RCAP Assessment Team
- (iii) Independent comparison and evaluation of the domestic regulations issued by Korean authorities with corresponding Basel III standards issued by the BCBS
- (iv) Identification of observations
- (v) Refinement of the list of observations based on clarifications provided by Korean authorities
- (vi) Assessment of materiality of deviations for all quantifiable deviations based on data and non-quantifiable deviations based on expert judgment
- (vii) Forwarding of the list of observations to Korean authorities

B. On-site assessment

- (viii) Discussion of individual observations with Korean authorities
- (ix) Meeting with selected Korean banks, accounting firms and a credit ratings agency
- (x) Discussion with Korean authorities and revision of findings to reflect additional information received
- (xi) Assignment of component grades and overall grade
- (xii) Submission of the detailed findings to Korean authorities with grades
- (xiii) Receipt of comments on the detailed findings from Korean authorities

C. Review and finalisation of the RCAP report

- (xiv) Review of comments by the RCAP Assessment Team, finalisation of the draft report and forwarding to Korean authorities for comments
- (xv) Review of Korean authorities' comments by the RCAP Assessment Team
- (xvi) Review of the draft report by the RCAP Review Team
- (xvii) Review of the draft report by the Peer Review Board
- (xviii) Reporting of findings to SIG by the team leader

Annex 6: List of rectifications by Korean authorities

Basel paragraph	Reference to Korean document and paragraph	Brief description of the forthcoming correction
Definition of capital		
Basel III paragraph 53	DRSBB [Appendix 3] 5B(1)	Korean DRSBB explicitly requires that internationally active banks structured as joint stock companies should have common equity instruments (CET 1) solely in the form of common shares.
Minimum requirements to ensure loss absorbency at the Point of Non-Viability (PONV) – paragraph 6	DRSBB [Appendix 3-5] 5A	Korean DRSBB explicitly requires a subsidiary issued capital instrument, once to be recognised as capital at consolidated level, to include a trigger based on PONV related to the parent company.
Credit risk: Standardised Approach		
Basel II paragraphs 58, 60–62	DRSBB [Appendix 3] 32A, 35A	Delete the statement that bank exposures classed as PSE are excluded from bank exposures.
Basel II paragraph 59	DRSBB [Appendix 3] 34B(1)-(5)	About determining MDBs eligible for 0% risk weight, the Korean DRSBB explicitly includes the eligibility criteria specified in Basel II paragraph 59, namely “strong shareholder support demonstrated by the amount of paid-in capital contributed by the shareholders”, “continued capital contributions and new pledges from sovereign holders” and “rigorous assessment of risk”.
Basel II paragraph 65	DRSBB [Appendix 3] 36	Korean DRSBB explicitly states that securities firms subject to supervisory and regulatory arrangements comparable to the Basel framework may be treated as banks; otherwise they should be treated as corporates.
Basel II paragraph 66	DRSBB [Appendix 3] 37A	Korean DRSBB explicitly specifies that the risk-weighting of rated corporate claims applies to claims on insurance companies, as stated in Basel II paragraph 66.
Basel II paragraph 70	DRSBB [Appendix 3] 39	Korean DRSBB includes the product criterion, which is stated in Basel II paragraph 70, in the eligibility criteria for regulatory retail portfolio.
Basel II paragraph 77	DRSBB [Appendix 3] 42B	Korean DRSBB additionally requires banks to “set strict operational criteria permitted by the supervisor to ensure the quality of collateral”.

Basel II paragraph 145	DRSBB [Appendix 3] 60(5)(a)	Korean DRSBB excludes unrated bonds issued by a securities company as the eligible collateral in application of simplified approach.
Basel II paragraph 151	DRSBB [Appendix 3] 65A	Korean DRSBB explicitly includes the convertible bonds in the cases of the supervisory haircut applicable to main index equities in using collateral as credit risk mitigant.
Basel II paragraph 158	DRSBB [Appendix 3] 68C(6)	Korean DRSBB clearly states that, where historical data may underestimate potential volatility, they must be dealt with by subjecting the data to stress testing when banks may calculate haircut of the collateral using their own estimates of volatility.
Basel II paragraph 164	DRSBB [Appendix 3] 68B(4)	Korean DRSBB clearly states that as a qualitative criterion for banks to use own estimates of haircuts, the risk measurement system should be used in conjunction with internal exposure limits.
Basel II paragraph 170(h)	DRSBB [Appendix 3] 72A(8)	Regarding exclusions from application of haircuts, Korean DRSBB explicitly states that the bank may have an unfettered legal authority to acquire or dispose of the collateral to satisfy its claims regardless of whether any bankruptcy or default by a counterparty occurs.

Credit risk: IRB

Basel II paragraph 227	DRSBB [Appendix 3] 116-3(6)	Korean DRSBB was amended to include the requirement in paragraph 227 of the Basel II standard: " <i>Commercial ADC loans exempted from treatment as HVCRE loans on the basis of certainty of repayment of borrower equity are, however, ineligible for the additional reductions for SL exposures</i> ".
Basel II paragraph 234	DRSBB [Appendix 3] 116-7	Korean DRSBB now explicitly states that one of the essential criteria for qualifying as QRRE is "uncommitted (both contractually and in practice)" when it comes to Qualifying Revolving Exposures.
Basel II paragraphs 256–260	DRSBB [Appendix 3] 115	Korean DRSBB changes the statement "if the credit risk-weighted assets for a specific type of exposure or for a specific business division do not exceed 15% of the aggregate of credit risk-weighted assets of a bank, it shall segregate such an exposure and calculate the credit risk-weighted assets by the standardised approach, subject to prior consultation with FSS" into "in case some exposures in certain business units or asset classes are immaterial in terms of size and risk profile, the credit risk-weighted assets of such exposures shall be calculated under the standardised approach, subject to prior consultation with the Governor, provided that the Governor may require the relevant bank to take appropriate measures". Also, Korean DRSBB deletes the provision that "Notwithstanding the above provision, the standardised approach may be applied to applied to sovereign and bank exposures (including public sector entities)."
Basel II paragraph 321	DRSBB [Appendix 3] 126B	Korean DRSBB now explicitly states that Effective Maturity is limited to cases where provisions on maturities of less than one year, daily remargining, daily repricing, and immediate liquidation are documented.

Basel II paragraphs 308 and 334	DRSBB [Appendix 3] 133A	About calculating EAD of Retail Exposures, Korean DRSBB now explicitly states that "on- and off-balance sheet retail exposures shall be measured by including allowances for credit losses (including those classified as substandard or lower) and partial write-downs".
Basel II paragraph 349	DRSBB [Appendix 3] 134C(3)	In terms of the revision, cases where a bank applies the approach under the provisions of (2) above, it may only recognise credit risk-mitigating effects by guarantees (excluding those in the form of a collateral) and will thus now not recognise the effects of equity derivatives and other credit risk-mitigating techniques (excluding those in the form of a collateral).
Basel II paragraphs 364, 365 and 369	DRSBB [Appendix 3] 137, 139 and 140	Risk factors used to calculate credit-weighted assets and the expected loss for a borrower's default risk and the dilution risk shall be calculated on a standalone basis by borrower, excluding the assumption that the assignor of the purchased receivable or a third party provides a guarantee or the right to indemnity.
Basel II paragraphs 384–386	DRSBB [Appendix 3] 117 D, 7.A.(5)	When a calculated expected loss is lower than the bank's allowance for credit losses, FSS may examine whether the expected loss has been estimated after fully reflecting market conditions and determine whether such a difference is allowable for inclusion in Tier 2 capital. When the allowance for default assets exceeds the expected loss, the FSS may require proof of the appropriateness of the expected loss.
Basel II paragraph 451	DRSBB [Appendix 3] 181	In particular, when the quality of the model and data is low and the error range is likely to increase, banks shall expand the range of conservative adjustment.
Basel II paragraph 520	DRSBB [Appendix 3] 124.D.(1)(j)	The bank shall establish proper procedures for the collection of purchased receivables in a crisis situation, and the collection procedures shall be described in writing
Basel II paragraph 521	DRSBB [Appendix 3] 124.D.(2)(a)–(g), and 124.D.(2)(c)	There shall be a liquid market in which collateral may be disposed at an expeditious and economically efficient manner. Further, well established market prices for <u>collateral</u> shall be made available to the public so as to prevent a significant difference between the amount that the bank receives from disposing collateral and its market value.

Counterparty Credit Risk framework

Basel II paragraph 5 of Annex 4	DRSBB [Appendix 3] paragraph 257	Assets for raising short-term funds may be exchanged for others (cash or securities) for short periods of time.
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Market risk

Basel II paragraph 683(i)	DRSBB [Appendix 3-2] paragraph 2A	Market risk explicitly includes both on-balance sheet and off-balance sheet positions.
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Basel II paragraph 683(i)	DRSBB [Appendix 3-2] paragraph 2A	Market risk explicitly includes both on-balance sheet and off-balance sheet positions.
Operational risk		
Basel II paragraph 672	DRSBB [Appendix 3] 252.D.2	Korean DRSBB clearly states that internally generated operational risk measures used for regulatory capital purposes must be based on a minimum five-year observation period of internal loss data, whether the internal loss data is used directly to build the loss measure or to validate it.
Pillar 3		
Basel III paragraph 822 Table 3	Instruction for Unified Disclosure for Financial Services (IUDFS) Chapter 2.13.E.(2)(b)	All banks should disclose a summary discussion of the bank's approach to assess the adequacy of its capital to support current and future activities.
Basel III paragraph 826 Table 9	Instruction for Unified Disclosure for Financial Services (IUDFS) Chapter 2.30	All banks should disclose movement of securitised assets between trading and banking book with specific requirements under Basel 2.5 (Table 9(f)).
Basel III paragraph 826 Table 11(f)	Instruction for Unified Disclosure for Financial Services (IUDFS) Chapter 2.29	All banks should disclose figures of both VaR and sVaR.
Pillar 3 disclosure requirements for remuneration paragraph 11(h)	Criteria for Drafting Annual Corporate Governance Reports	Paragraph 11(h) of the disclosure requirements for remuneration requires a disclosure of the number and total amount of sign-on awards made during the financial year. The "Criteria for Drafting Annual Corporate Governance Reports" will be extended to include the missing criterion.
Pillar 3 disclosure requirements for remuneration paragraph 11(i)	Criteria for Drafting Annual Corporate Governance Reports	"Criteria for Drafting Annual Corporate Governance Reports" will be extended to include a breakdown of the amount of outstanding deferred remuneration into cash, shares and share-linked instruments and other forms.
Pillar 3 disclosure requirements for remuneration paragraph 11(k)	Criteria for Drafting Annual Corporate Governance Reports	The "Criteria for Drafting Annual Corporate Governance Reports" will be extended to include a disclosure of the total amount of outstanding deferred remuneration and retained remuneration exposed to ex post explicit and/or implicit adjustments in line with the Basel requirements for remuneration.

Pillar 3 disclosure requirements for capital paragraph 31	IUDFS Chapter 5 II.13.E	There are no capital ratio rules other than those in the Basel III regulatory framework. However, if a bank should disclose capital ratios other than the regulatory capital ratio, this bank will be required to disclose such ratios with the methodologies of calculation figures.
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Annex 7: Assessment of bindingness of regulatory documents

The following table summarises the assessment of the seven criteria used by the Assessment Team to determine the eligibility of Korean regulatory documents.

Criterion	Assessment
(1) The instruments used are part of a well defined, clear and transparent hierarchy of legal and regulatory framework.	Banking regulations in Korea comprise the (1) Banking Act, (2) Enforcement Decree of the Banking Act, (3) Regulation on Supervision of Banking Business (RSBB), (4) Detailed Regulations on Supervision of Banking Business (DRSBB), and (5) Instructions for Unified Disclosure for Financial Services (IUDFS). The authority for each of the five varies and follows a vertical hierarchy from the highest (1) to the lowest (5). The Banking Act provides a comprehensive framework for banking regulation and supervision by the Financial Services Commission (FSC) including prudential standards relating to eg capital, assets, and liquidity. Furthermore, the Banking Act authorises the Financial Supervisory Service (FSS) to supervise banks and ensure they abide by the rules and regulations set by the FSC. In addition, the Banking Act authorises the FSC to take enforcement measures against banks for violating rules and regulations. The RSBB and the DRSBB are based on the Banking Act and the Enforcement Decree of the Banking Act. The IUDFS are drafted by the Korea Federation of Banks (KFB) in line with RSBB guidance, and the FSS has power to require the enactment and amendment of the KFB's IUDFS.
(2) They are public and easily accessible	The regulatory capital instruments are part of the prudential standards set by the FSC. The definition of capital, the scope of application, and other related matters are made public and easily accessible at the government legislation website (www.law.go.kr), the FSC website (www.fsc.go.kr), and the FSS website (www.fss.or.kr).
(3) They are properly communicated and viewed as binding by banks as well as by the supervisors.	The FSC/FSS announces proposals for regulatory amendments for at least 40 days of public consultation. When they take effect, the FSC/FSS notifies the banks of the new rule changes, which are legally binding for banks as well as for the supervisors. The FSS holds open meetings with the banks on the new rules and any technical guidelines issued in order to ensure the banks' familiarity and compliance with them.
(4) They would generally be expected to be legally upheld if challenged and are supported by precedent.	The Banking Act and its subordinate regulations would be upheld in court. Under the Banking Act, banks that are deemed not compliant with regulations will be subject to corrective measures and sanctions. Furthermore, the FSC/FSS has broad powers to take supervisory actions as well as remedial and enforcement actions to compel compliance.
(5) Consequences of failure to comply are properly understood and carry the same practical effect as for the primary law or regulation.	Since the regulations above are based on the Banking Act, a violation of regulations would also constitute a violation of the Banking Act and would therefore be subject to corrective measures and sanction by the FSC.
(6) The regulatory provisions are expressed in clear language that complies with the Basel provisions in both substance and spirit.	The RSBB, DRSBB and IUDFS were drafted in clear and concise language found in Basel standard as guidance in order to be compliant with the Basel provisions.

(7) The substance of the instrument is expected to remain in force for the foreseeable future	Based on the Banking Act, its subordinated regulations remains in effect until it is newly amended. The regulations are amended through the same procedures that apply when it was first established.
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Annex 8: Key financial indicators of Korean banking system

Overview of Korean banking sector as of 31 December 2015

Table 7

Size of banking sector (KRW billions)	
Total assets all banks operating in the jurisdiction (including off-balance sheet assets)	2,878,310
Total assets of all locally incorporated internationally active banks	2,621,728
Total assets of locally incorporated banks to which capital standards under Basel framework are applied (ie excluding foreign bank branches)	2,878,310
Number of banks	
Number of banks operating in Korea	17
Number of internationally active banks	10
Number of banks required to implement Basel standards (according to domestic rules)	17
Number of Global Systemically Important Banks (G-SIBs)	-
Capital standards under the Basel framework	
Number of banks required to implement Basel equivalent standards	17
Use of advanced approaches by banks	11
Capital adequacy (internationally active banks) (KRW billions; percent)	
Total capital	178,909
Total Tier 1 capital	146,122
Total CET1 capital	138,260
Total risk-weighted assets	1,292,592
RWAs for credit risk (percent of total RWAs)	1,194,940 (92.45%)
RWAs for market risk (percent of total RWAs)	34,254 (2.65%)
RWAs for operational risk (percent of total RWAs)	63,259 (4.89%)
Total off-balance sheet bank assets ⁷	2,205,148
Capital Adequacy Ratio (weighted average)	13.84%
Tier 1 Ratio (weighted average)	11.29%
CET1 Ratio (weighted average)	10.71%

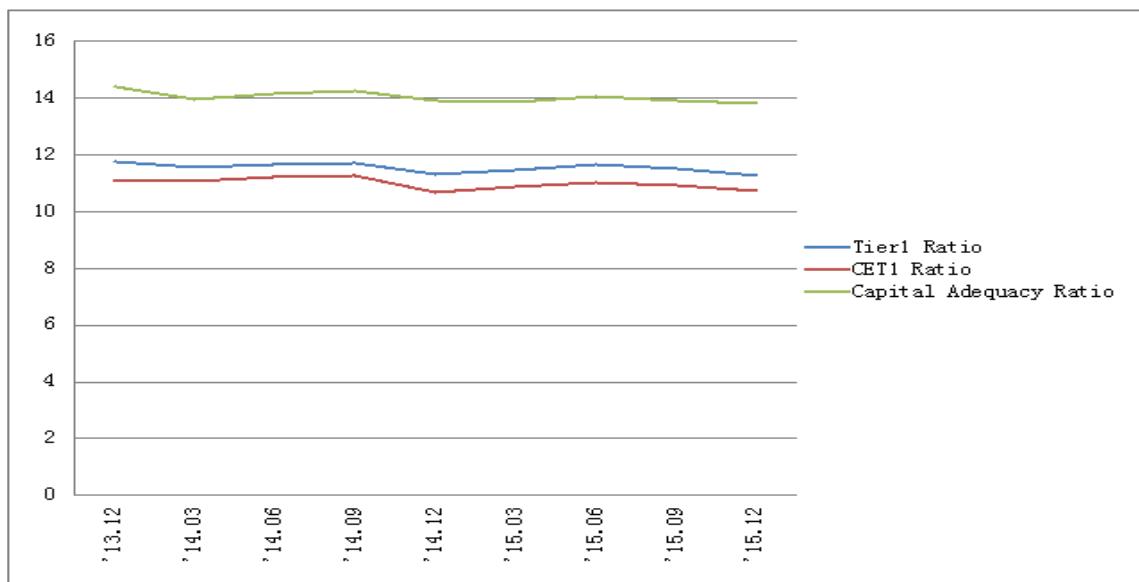
Source: FSS.

⁷ Includes derivatives at fair value and the credit equivalent amount of non-market related off-balance sheet exposures.

Evolution of capital ratios of Korean internationally active banks

Weighted average, in percent

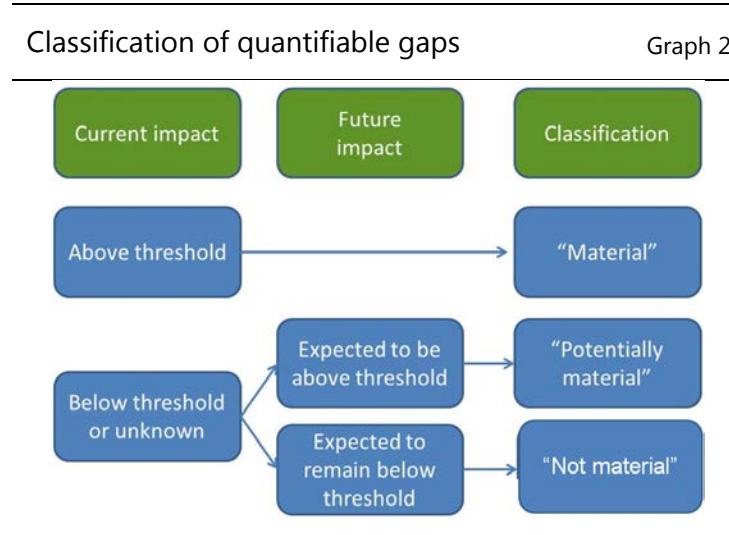
Graph 1



Source: FSS.

Annex 9: Materiality assessment

The outcome of the RCAP assessment is based on the materiality of the findings. As per the RCAP assessment methodology, for the assessment of materiality a distinction is made between quantifiable and non-quantifiable findings. For quantifiable gaps, the materiality assessment is based on data where available. For non-quantifiable gaps, the team relies on expert judgment only. Following this approach, an attempt was made to determine whether findings are "not material", "material" or "potentially material". Following the amendments published on 28 June 2016 by the FSS, 13 quantifiable gaps remain.



Number of gaps/differences by component Table 8

Component	Non-material	Material	Potentially material
Scope of application	0	0	0
Transitional arrangements	1	1	0
Definition of capital	1	1	0
Capital buffers	0	0	0
Pillar 1			
CR: Standardised Approach	1	0	2
CR: IRB	0	0	1
CR: Securitisation	2	0	0
Counterparty credit risk	0	0	0
MR: Standardised Approach	0	0	0
MR: Internal Models	0	0	0
OR: SA/BIA	0	0	0
OR: AMA	0	0	0
Pillar 2	1	0	0
Pillar 3	2	0	0

Note: materiality is defined based on quantitative benchmark thresholds (for the quantifiable gaps) and expert judgment (for the non-quantifiable gaps). See Section 2 with the detailed assessment findings for further information.

RCAP sample of banks

The following Korean banks were selected for materiality testing of the quantifiable deviations. Together these banks hold about 76% of the total assets of the Korean banking system. The sample covers internationally active banks, and is a fair representation of the various types of banks operating in Korea. The basis of materiality assessment is the impact on the reported liquidity ratio of the banks constituting the sample agreed between the Assessment Team and the assessed jurisdiction.

Banking group	Share of the banking groups' assets in the total Korean banking sector assets as at 31 December 2015
1. Hana Bank	13.6%
2. Kookmin Bank	12.8%
3. Woori Bank	12.8%
4. Shinhan Bank	12.3%
5. Nonghyup Bank	10.7%
6. Industrial Bank of Korea	10.1%
7. Citibank Korea	2.3%
8. Kyongnam Bank	1.5%

Annex 10: Areas where Korean rules are stricter than the Basel standards

In several places, the Korean authorities have adopted a stricter approach than the minimum standards prescribed by Basel or have simplified or generalised an approach in a way that does not necessarily result in stricter requirements under all circumstances but never results in less rigorous requirements than the Basel standards. The following list provides an overview of these areas. It should be noted that these areas have not been taken into account as mitigants for the overall assessment of compliance.

Definition of capital and transitional arrangements

- While the Basel framework requires the application of capital standards to internationally active banks (Basel II paragraphs 20–23), Korea has made it applicable to all domestic banks. This ensures that the banks are subject to the same standards and prevents any potential build-up of risk in them and in the banking system.
- Basel III requires dividends to be excluded from CET1 (paragraph 52), but Korea goes further to exclude would-be dividends that have been declared but are yet to be distributed from retained earnings according to the DRSBB [Appendix 3] 8. (1)(f)
- Basel III requires banks to deduct investments in their own Additional Tier 1 in the calculation of their Additional Tier 1 capital and to deduct investments in their own Tier 2 in the calculation of their Tier 2 capital. In such cases, however, all of the shares acquired by the institution under this exception are deducted from CET1, regardless of whether they form part of Additional Tier 1 or Tier 2 capital according to Korean DRSBB [Appendix3] 8. (1)(e).
- Under Basel III, regulatory adjustments are set to begin at 20% of the required adjustments to CET1 on 1 January 2014, 40% on 1 January 2015, 60% on 1 January 2016, 80% on 1 January 2017, and reach 100% on 1 January 2018. Korea implemented a full deduction at the inception of the new rules as provided under DRSBB [Appendix 3] 8(8).

Credit risk: Standardised Approach

- According to the Basel III framework, claims secured by residential real estate receive a flat 35% risk weight. However, the FSS raised the risk weight for residential mortgage exposures that are considered to be high risk. Bullet loans, amortising loans without interest-only period, or loans to obligors with three or more residential properties are identified as “high risk residential mortgage exposures” and are assigned a 50% risk weight. If the maturity or grace period of a “high risk residential mortgage exposure” is extended without paying back at least 10% of the existing loan limit, it is categorised as “high risk residential mortgage exposure 2”, which attracts a 70% risk weight.

Credit risk: Internal Ratings-Based Approach

- The FSS has set a 15% risk weight floor on residential mortgage exposures, while Basel III did not specify any risk weight floor.

- The asset correlation for the capital requirement (K) formula for residential mortgage exposures is set at 0.15 in Basel III, but the FSS increased the asset correlation for “high risk residential mortgage exposures” and “high risk residential mortgage exposures 2” to 0.3 and 0.35, respectively, to increase the overall risk weights applied to such exposures.

Operational risk: Basic Indicator Approach and the Standardised Approach

- The Standardised Approach in the Basel II paragraph 654 allows negative capital charges in any business line to offset positive capital charges in other business lines without limit, in any given year; Korea has additional measures in place to limit such offsetting across business lines according to the DRSBB [Appendix 3] 240.B. If the capital charge in a business line is negative for two years or more, it will be treated as “zero” and cannot be used to offset positive capital charges in other business lines.
- While the additional criteria in the Basel II paragraph 663 apply only to internationally active banks that wish to use the Standardised Approach, the same requirement – with exception of validation and regular external review – applies to all banks that use the Standardised Approach in Korea, regardless of their international business coverage according to the DRSBB [Appendix 3] 250. According to the DRSBB [Appendix 3] 251-2, the requirements for a regular validation and external review have to be fulfilled only by internationally active banks (pursuant to the Basel Standard).

Market risk

- While Basel paragraph 683(iv) states that the market risk framework applies only to internationally active banks, Korea applies the market risk framework to all Korean banks whose daily trading positions exceed KRW 100 billion. Daily trading positions include trusts with guaranteed capital protection and investment yield (ie pension savings trust), based on DRSBB [Appendix 3-2] 1.A.
- Although Basel paragraph 718(xLii) allows banks doing negligible business in foreign currency to be exempted from capital requirements on such positions, under its national discretion, the FSS does not allow such exemptions. The FSS also prohibits the use of proxy measures, such as the internal limits for assessing foreign exchange risk of a foreign branch or subsidiary of a bank.
- While the Basel text provides the option to use the simplified approach to calculate the market risk of positions related to options, Korea does not allow banks that write options to use the simplified approach pursuant to DRSBB [Appendix 3-2] 16.A

Annex 11: List of approaches not allowed by Korean regulatory framework

The following list provides an overview of approaches that Korean authorities have not made available to its banks through its regulatory framework. Where the Basel standards explicitly request certain approaches to be implemented under specific circumstances, the missing approaches have been taken into account in the assessment. However, where the Basel standards do not require jurisdictions to implement these approaches, they have been implicitly treated as "not applicable" for the assessment.

Operational risk

Korea has not implemented the Alternative Standardised Approach to operational risk.

Annex 12: List of issues for follow-up RCAP assessments

The Assessment Team identified the following issues listed below for follow-up and for future RCAP assessments of Korea:

Pillar 2

Paragraphs 84–94 of the sound compensation practices of the Basel supplemental Pillar 2 guidance were transposed into Korean regulation through the GGSFC. This supplementary document does not have regulatory status and for the purpose of assessment of Pillar 2 and Pillar 3, the Assessment Team concluded that the legal bindingness and enforceability of the GGSFC are questionable. Notwithstanding, the Assessment Team is cognisant that the GGSFC will soon be superseded by the legally binding AGSFC by August 2016. As the AGSFC was not subject to review during this RCAP assessment, the Assessment Team sees merit in raising this issue as an item for future follow-up to ensure that the Basel supplemental Pillar 2 guidance is transposed into the binding Korean regulation consistently with the Basel standard.

Pillar 3

The disclosure requirements for remuneration (Pillar 3) were also implemented through the GGSFC and the "Criteria for Drafting Annual Corporate Governance Reports", for which the legal bindingness and enforceability are regarded as questionable in both cases. Notwithstanding, the Assessment Team is cognisant that the relevant Pillar 3 provisions in the GGSFC will be formally enacted as a legally binding Korean Act AGSFC while the "Criteria for Drafting Annual Corporate Governance Reports" will be added to the other part of Korean regulation (RGSFC) by August 2016. As the AGSFC and RGSFC were not subject to review during this RCAP assessment, the Assessment Team sees merit in raising this issue as an item for future follow-up.

Annex 13: Areas for further guidance from the Basel Committee

The Assessment Team identified the following areas where further guidance is required from the Basel Committee. Additional detail is provided in Section 2.3.4.

Credit risk: Internal Ratings-Based Approach

The Basel framework specifies that once a bank adopts an IRB approach for part of its holdings, it is expected to extend it across the entire banking group. However, the Basel Committee recognises that, for many banks, it may not be practicable for various reasons to implement the IRB approach across all material asset classes and business units at the same time. As such, supervisors may allow banks to adopt a phased rollout of the IRB approach across the banking group. For this reason, a bank must produce an implementation plan, specifying to what extent and when it intends to rollout the IRB approaches across significant asset classes and business units over time.

In addition, the Basel Committee further requires that the implementation plan produced by banks must be exacting, yet realistic and must be agreed by the supervisor. The Assessment Team acknowledges that no guidance has been provided by the Basel Committee with regard to what the Basel Committee deem as an acceptable implementation timeline for phased rollout. Further, guidance is required on whether a supervisor can exclude the application of IRB for portfolios where modelling is considered difficult. In this regard, the Basel Committee may wish to consider providing such guidance in the future to ensure prudence and consistency in approaches.

Annex 14: Korea's implementation of the Pillar 2 supervisory review process

Korea's supervisory review process is consistent with the four key principles of Basel Pillar 2 standard (International Convergence of Capital Measurement and Capital Standards, June 2006). The FSS conducts Pillar 2 supervision for domestic banks (excluding foreign bank branches). Korea's Pillar 2 approach is to address the limitations of the minimum risk-based capital requirements as a measure of a bank's full risk profile – including risks not covered or not adequately addressed or quantified in the Pillar 1 framework – and to encourage banks to improve the management of all material risks stemming from banking activities. The following explanations provide a brief summary of how Korea's Pillar 2 regime incorporates and mirrors the four principles of Pillar 2.

Application of the four principles of supervisory review

The FSS's supervisory framework for the four principles of supervisory review is described below.

Principle 1: Banks should have a process for assessing their overall capital adequacy in relation to their risk profile and a strategy for maintaining their capital levels.

Under Korea's ICAAP framework, banks calculate and hold internal capital at levels commensurate with their risk profiles, risk management levels, stress test results and business strategies. Banks also regularly conduct a review of their internal capital adequacy management system to evaluate whether their capital levels are consistent with their risk profiles. Banks prepare the internal capital adequacy report at least once a year and submit it to the FSS upon approval from the board of directors. The report includes, among other details, information pertaining to the risk management structure, risk identification, limits on each risk, the result of stress tests, and a capital plan.

Principle 2: Supervisors should review and evaluate banks' internal capital adequacy assessments and strategies, as well as their ability to monitor and ensure their compliance with regulatory capital ratios. Supervisors should take appropriate supervisory action if they are not satisfied with the result of this process.

The FSS has developed regulatory risk assessment frameworks that are based on the DRSBB [Appendix 9]. The FSS conducts Pillar 2 assessments on a consolidated basis for each bank and reviews the inherent risks and risk management levels. Inherent risks are measured and evaluated using quantitative indicators for credit risk, market risk, interest rate risk, operational risk, liquidity risk, and credit concentration risk. Similarly, risk management is performed by evaluating items that are relevant for the purpose of risk assessment from among the non-quantitative factors of the supervisory rating and evaluation, including capital adequacy (C), asset quality (A), liquidity (L) and risk management (R). The composite rating for the risk assessment is determined by calculating a weighted average of the inherent risk grade and a risk management level grade.

Principle 3: Supervisors should expect banks to operate above the minimum regulatory capital ratios and should have the ability to require banks to hold capital in excess of the minimum.

Banks with unsatisfactory Pillar 2 risk assessment must take steps to raise the capital level in excess of the minimum standard. For banks with unsatisfactory Pillar 2 ratings, the risk-weighted assets of the regulatory capital need to be adjusted upwards and consequently the regulatory capital adequacy ratio downwards.

Principle 4: Supervisors should seek to intervene at an early stage to prevent capital from falling below the minimum levels required to support the risk characteristics of a particular bank and should require rapid remedial action if capital is not maintained or restored.

In addition to measures for higher capital levels, the FSS may take or demand the following remedial supervisory measures to ensure appropriate capital levels:

- Intensified monitoring;
- More effective risk management of areas vulnerable to certain risks;
- Capital improvement plan or an agreement to improve risk management;
- Steps to raise additional capital through such capital enhancement measures as dividend restrictions;
- An MOU to raise additional capital through capital enhancement measures; and
- Upgrading risk weights to specific exposures and raising the reserves.