

**Application to adopt the internal ratings-based approach for the measurement of the credit risk exposure in respect of positions held in a bank's banking book (IRB application)**

**June 2010**

## **Notes to the IRB application**

1. The implementation of the amended Regulations relating to Banks (the Regulations) introduced a menu of approaches to banks, controlling companies and branches of foreign institutions (hereafter referred to as “banks”) for calculating the minimum required amount of primary and secondary capital and reserve funds relating to banks’ exposure to credit risk. Banks are required to obtain prior written approval of the Registrar of Banks to adopt the foundation IRB approach and/or the advanced IRB approach (jointly referred to as the advanced approaches) for calculating exposure to credit risk in respect of positions held in the banking book.
2. Banks should make provision for a period of up to 18 months between first approaching the Bank Supervision Department (BSD) concerning their intention to apply for approval to make use of the advanced approaches and approval actually being granted or denied.
3. All banks applying to adopt the advanced approaches will be required, once advised by this Office, to undertake a minimum 6 months BA returns reporting parallel run for the affected portfolios prior to using such approaches in capital calculations. This parallel run period will be performed during the above-mentioned 18 month application period. The aim of the parallel run is to give banks and the BSD comfort that banks intending to use the advanced approaches have tested their systems for management and regulatory reporting purposes and will be able to successfully use them for capital calculations by the end of the parallel run period. The capital impact of the models will also be monitored and assessed by BSD during the parallel run period. The parallel run submissions are in addition to the regular BA returns submitted by banks and applicant banks should therefore liaise with BSD for arrangements with regard to the parallel run submission process.
4. The IRB application process consists of two stages. The first stage requires a bank to complete the IRB application pack which provides summary information on its plans for IRB implementation and its approach to a number of key areas such as governance and the use of internal ratings. The second stage requires BSD to carry out an on-site focused review at the bank to assess areas identified for follow-up (during the review of the IRB application pack submitted) to determine whether the bank will be able to meet the minimum requirements. BSD is likely to request further detailed information if deemed necessary.
5. Banks are expected to be in a reasonable state of readiness when they apply for approval to adopt the advanced approaches, which would include having a clear and realistic roll-out plan covering the material portfolios for inclusion in the advanced approaches. BSD will rely on preparatory work undertaken by

the banks themselves. Key thereto is the involvement of senior management in the approach being considered, including the requirement for the information submitted by banks being signed off by the chief executive officer.

6. When compiling information requested in the sections below, banks should provide concise responses and where necessary, may refer to supporting documentation, which BSD can request during stage 2 of the IRB application process. The primary aim of the information is to enable the BSD to determine the scope of its supervisory review work in respect of assessing a bank's IRB application (as part of stage two of the application) and the bank should bear this in mind when formulating its application.

## **Information to be provided by a bank, controlling company or branch of a foreign institution**

### **Section A**

#### **General overview of application**

1. Overview of IRB implementation plan and key milestones, including an overview of the external expertise or internal expertise used within the group.
2. A summary of why the bank is applying for the advanced approaches and what it aims to achieve as a consequence.
3. Overview of the group and legal entity structure.
4. Scope of the application, setting out the approaches for which application is being made and setting out the business lines and portfolios and legal entities (mapped to the different asset classes per the BA 200) to which the approach will apply.
5. Detail of portfolios for which the bank wishes to apply for any permanent exemptions.

### **Section B**

#### **Corporate governance and oversight**

6. Review of governance of the IRB implementation process (including a brief overview of how it fits into the governance process at a group level):
  - 6.1 Description of the governance process.
  - 6.2 Model development and maintenance.
  - 6.3 Independent validation, including a motivation for structural independence and appropriate incentive structure.
7. Copy of the board approved credit policy and a description of future changes planned.
8. Copies of the board approved model validation, development and monitoring policies, where relevant.

### **Section C**

#### **Internal ratings-based approaches self-assessment**

9. Complete and submit Schedules 2 & 3 of the self-assessment (refer <http://www.reservebank.co.za>> SARB activities> Bank Supervision> The New Basel Capital Accord (Basel II)> Internal rating-based approaches self-assessment> Schedule 2 and 3 RRS Scorecard)

## **Section D**

### **Rating and risk estimation systems**

10. Model development methodology adopted for the significant asset classes.
11. The process followed in tailoring the models for the South African environment and the branch management's input into the development of the models<sup>1</sup>.
12. Overview of the parameter estimations (probability of default (PDs), loss given default (LGDs) and exposure at default (EADs)), for example, the current levels of PDs, LGDs and EADs per asset class.
13. Description of how the bank meets the experience requirement, elaborating on the time that the rating/scoring systems have been in operation.
14. Summary of the level of compliance with the use test requirements, specifically describing how the rating and risk estimation systems and processes form an integral part of:
  - 14.1 Credit approval.
  - 14.2 Reporting of credit risk information: description of reports produced using data of the model.
  - 14.3 Risk management and internal capital allocation process.
15. Outline the differences, if any, between the parameters used for regulatory capital purposes and those for internal purposes.
16. Model weaknesses and limitations: description of any known weaknesses of the models and anticipated timetable for remedying or improving them.

## **Section E**

### **Stress testing**

17. Description of the bank's approach to credit risk stress testing. In particular, describe the level of compliance with the requirements specified in regulation 23(11)(b)(ix) of the Regulations.

## **Section F**

### **Technological environment, data maintenance and regulatory reporting requirements**

18. Description of the bank's approach to data management, with reference to the applications used to store information relating to the rating system, the estimated parameters and any other relevant aspect. In particular, describe the level of compliance with the requirements specified in regulation 23(11)(b)(viii) of the Regulations.

<sup>1</sup> Only to be provided by branches of foreign institutions

19. The process followed to obtain calibration databases and regulatory capital figures, including an overview of the regulatory reporting system and whether the bank would be in a position to complete and submit the risk-based returns within the periods specified in regulation 7 of the Regulations.

**Section G**  
**Independent validation**

20. Description of the bank's approach to validation, with reference to:
- 20.1 Back testing. Analysis of the differences between the estimated risk parameters and realised default rates, realised severity and EAD amounts.
  - 20.2 Performance monitoring. Description of the different studies carried out to test stability of the results, tests used to calculate discriminatory power and calibration of rating systems.
  - 20.3 Datasets used for the calculation of the validation tests.
21. Staffing of validation unit, including approved vacancies and skill set.

**Section H**  
**Declaration by the Chief Executive Officer** (attached)

**Section I**  
**Declaration by the Chairperson of the Board of Directors** (attached)

**Note:** Supply responses to this questionnaire and supporting documentation electronically to [SARB-BANKSUP@resbank.co.za](mailto:SARB-BANKSUP@resbank.co.za) or on hard medium such as CD or memory stick.

**Section H**

**Declaration by the Chief Executive Officer**

**Declaration constituting the formal application for approval for use of the IRB approach in respect of credit risk exposures for purposes of determining the regulatory required minimum capital to be held**

1. I, the undersigned, hereby declare that I have carefully worked through the content of the information that is being submitted as part of the application for permission to use the internal ratings-based approach to calculate minimum required capital and reserve funds relating to credit risk.
  
2. I declare that this information is correct, complete, accurate and truthful and gives a true picture of the situation at .....(name of bank) on the basis of which the BSD can form a judgement on the application.
  
3. I undertake to notify the BSD immediately if there is a significant change to the information given in the application pack. I hereby also acknowledge that if I fail to do so, this may result in a delay in the application process.

Signed at....., this.....day of .....(yyyy-mm)

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Chief Executive Officer

**Section I**

**Declaration by the Chairperson of the Board of Directors**

**Declaration constituting the formal application for approval for use of the IRB approach in respect of credit risk exposures for purposes of determining the regulatory required minimum capital to be held**

1. I sign this application on behalf of every legal entity making the application.
2. I confirm that the information submitted in the application pack represents a true and fair view, to the best of my knowledge and belief, and that I have taken all reasonable steps to ensure that this is the case.
3. I confirm that I am aware that it is an offence to provide the BSD, knowingly or recklessly, with information that is false or misleading.
4. I give consent to make the records that demonstrate our compliance with the IRB minimum requirements available to the BSD upon its request.
5. I confirm that I give consent for any information provided in relation to this application to be shared with other local and/or international regulators at the BSD's discretion.

Signed at....., this.....day of .....(yyyy-mm)

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Chairperson of the Board of Directors