CONSULTATION PAPER

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IRB Approach Rollout & Exclusions

MAS
Monetary Authority of Singapore

PREFACE

The Basel Committee on Banking Supervision's ("BCBS") document, *International Convergence of Capital Measurement and Capital Standards: A Revised Framework* ("Basel II"), prescribes the standards for the rollout of the advanced approaches to calculating capital requirements for credit and operational risks and allows national supervisors certain discretions in implementing these standards. This consultation paper sets out MAS' principles and baseline expectations for banks that wish to implement the Internal Ratings-based ("IRB") approach. It covers the following issues:

- Rollout of the IRB Approach, i.e., scope of coverage of implementation at the outset and time-frame for completing implementation across a banking group;
- Sequencing of certification for the IRB approach and parallel run;
- Transitional data and rating system use requirements; and
- Transitional and permanent exclusions from the IRB approach.

We invite comments from Singapore-incorporated banks and other interested parties. Please note that all submissions received may be made public unless confidentiality is specifically requested for all or part of the submission. Electronic submission is encouraged.

Please submit your comments in writing by 30 September 2004 to:

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TABLE OF CONTENTS

PREFACE i

TABLE OF CONTENTS ii

SECTION 1 BACKGROUND 1

SECTION 2 ROLLOUT 2

Coverage at Outset 2

Speed of Rollout 3

IRB Approach Rollout Relative to Advanced Approaches for Other Risks ... 4

SECTION 3 IRB CERTIFICATION AND PARALLEL RUN 4

SECTION 4 DATA AND RATING SYSTEM USE REQUIREMENTS 5

SECTION 5 TRANSITIONAL AND PERMANENT EXCLUSIONS 6

Exclusions for Non-equity Exposures 7

Exclusions for Equity Exposures 8

SECTION 1 BACKGROUND

1.1 Under Basel II, a bank adopting the IRB approach is expected to implement the approach across the entire banking group, that is, all business lines in all entities within the consolidated banking group. Notwithstanding the requirement for comprehensive IRB rollout, the BCBS recognises that a simultaneous rollout across all material asset classes may not be practicable in many cases. For example, data limitations may mean that some banks can meet the standards for the use of their own estimates of loss given default ("LGD") and exposure at default ("EAD") for only some but not all asset classes or business units at the same time.[1]

1.2 Therefore, under the Basel II rules, national supervisors may allow banks to phase in the IRB approach on three dimensions:

- Across asset classes within the same business unit (or in the case of retail exposures across individual sub-classes);
- Across business units in the same banking group; and
- Move from the Foundation IRB approach to the Advanced IRB approach for certain risk components.

The phased rollout is subject to the rule that when a bank adopts an IRB approach for an asset class within a particular business unit (or in the case of retail exposures for an individual sub-class), it must apply the IRB approach to all exposures within that asset class (or sub-class) in that unit.[2]

1.3 This consultation paper sets out MAS' *principles* on adoption of the IRB approach and baseline *expectations* of how banks would rollout the IRB approach. While we would emphasize that these expectations are not strict rules, they are intended to guide banks within certain bounds of acceptability. However, **it remains incumbent on each bank to seek MAS' approval for its specific rollout plan** and in that process we would take into account the particular circumstances of each bank.

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1 BCBS, ibid., paragraph 256. N.B., insurance entities are excluded.

2 BCBS, ibid., paragraph 257.

1.4 MAS has also considered the broader context of improvements to a bank's risk management and the broader organisational changes that such improvements entail. In this respect, adoption of the IRB approach should be considered in the context of its transition to more risk-sensitive approaches for measuring risk in other significant areas, i.e., market and operational risks.

1.5 The BCBS has recommended that the Advanced IRB approach be available for implementation from end-2007, i.e., as at 31 December 2007. We intend to adhere to this timing. On the other hand, the BCBS has also made the Standardised and Foundation IRB approaches available from end-2006. We are minded to adhere to this timing. However, we note that an international consensus among supervisors has yet to emerge on whether or not to implement all Basel II approaches together from end-2007, instead of in two steps. We seek banks' views on whether a single implementation date is preferable to the timeline proposed by the BCBS.

SECTION 2 ROLLOUT

COVERAGE AT OUTSET

2.1 Basel II requires a bank adopting an IRB approach to do so across the entire banking group. However, national supervisors have the discretion to permit phased implementation for practical reasons. In the implementation of Basel II for Singapore-incorporated banks, we propose the principle that **a banking group may not begin using the IRB approach in either Foundation or Advanced form unless it is able to do so meaningfully at the outset**. Therefore, *we expect* that at the outset:

- A banking group must rollout the IRB approach for exposures that attract at least 60% to 70% of the capital requirement for credit risk computed under the approach(es) in use as at the start of the parallel run; and
- The most significant portfolios in terms of size and risk profile should be covered.

2.2 Furthermore, **there should not be any intention to game or arbitrage capital requirements across sub-asset classes or legal entities**. Therefore, *we expect* that:

- Within a given jurisdiction, all corporate exposures (including SME and specialised lending, but not necessarily sovereign, bank and non-bank financial institutions exposures) must transition to the IRB approach simultaneously. All retail exposures must also transition to the IRB approach simultaneously;

- Within a given jurisdiction, a bank must adopt the IRB approach for corporate exposures before it adopts IRB for retail exposures;

- Across jurisdictions, for asset classes, e.g. large corporates, where arbitrage opportunities may be created by phased IRB rollout, such asset classes must transition to the IRB approach simultaneously; and

- Across a banking group, if market risk is significant, the Internal Models Approach ("IMA") must be adopted before the Advanced IRB approach is adopted for corporate exposures (c.f. paragraph 2.4 below).

SPEED OF ROLLOUT

2.3 While banks may be permitted to rollout the IRB approach in stages, **the rollout should not be prolonged or patchy**. A prolonged or patchy rollout would suggest that the bank's risk management capability has not reached sufficient sophistication on a group-wide basis and will blur the delineation between capital and provisioning requirements as intended under the IRB approach.[3] Therefore, where a bank is allowed partial rollout of the IRB approach initially, we would expect to have reasonable assurances from the bank that all remaining exposures, except those subject to a permanent exclusion, will be brought onto the IRB approach steadily and quickly. In general, *we expect* that a banking group should complete the rollout of the

[3] In the IRB approach, margin income and provisions cover expected loss (EL) and capital is intended to cover unexpected loss (UL). In the Standardised Approach, there is not a comparable conceptual distinction.

IRB approach across the entire group within 2 years, save in exceptional circumstances such as a merger or acquisition.

IRB APPROACH ROLLOUT RELATIVE TO ADVANCED APPROACHES FOR OTHER RISKS

2.4 We are of the view that a bank's transition to more-sophisticated credit risk management cannot be considered in isolation from the broader context of improvements in the management of all significant risks. Therefore, we propose that **a banking group's adoption of the Advanced IRB approach for credit risk measurement of corporate exposures should be accompanied by the adoption of advanced approaches for measuring other significant risks within the banking group**. As operational risk is pervasive in a bank's operations whereas the significance of market risk would depend on the bank's business strategy, *we expect* that a banking group should not begin using the Advanced IRB approach for corporate exposures unless it is able to implement, at or about the same time, if not earlier:

- An AMA for operational risk; and
- The IMA for market risk, if market risk is significant for the bank.

SECTION 3 IRB CERTIFICATION AND PARALLEL RUN

3.1 Basel II requires a period of parallel computations ("parallel run") of capital requirements under the Current Accord and the bank's chosen approach under Basel II, before the implementation date. Beginning at end-2005, this will last for one year for banks adopting the Foundation IRB approach for corporate exposures (including the IRB approach for retail exposures) and two years for banks adopting the Advanced IRB approach for corporate exposures.

3.2 While the validation of rating systems is the responsibility of banks, as supervisors, MAS will be responsible for certifying banks to use an IRB

approach for calculating its capital requirements. We view certification to include not only the certification of rating systems, but also the controls and processes surrounding them and the systems used to compute the capital adequacy ratio, as well as the bank's overall risk management framework. Therefore, for the parallel run to be meaningful, as a principle, **the parallel run should use certified rating systems and system infrastructure**, that is, certification should precede the parallel run. However, this principle would be applied flexibly if the outstanding issues at the start of the parallel run can be resolved during the parallel run and are not expected to affect the parallel run materially.[4] Therefore at a minimum, we may permit a bank to begin the parallel run if we are sufficiently satisfied to issue in-principle certification.

SECTION 4 DATA AND RATING SYSTEM USE REQUIREMENTS

4.1 Basel II sets minimum data requirements for IRB systems. As a transitional concession, national supervisors may relax some of these requirements for three years from the date of Basel II implementation.[5]

4.2 We propose **to relax the minimum data requirements for the Foundation IRB approach for corporate, sovereign and bank exposures and Advanced IRB for retail exposures for three years for each bank implementing the IRB approach**. This transitional arrangement applies from the date the bank begins using the IRB approach for computing its capital requirements and means that it must have a minimum of two years' data at that date. However, when certifying banks for the IRB approach or assessing them under Pillar Two (Supervisory Review), we may require banks that use these concessions to apply margins of conservatism, if warranted.

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[4] For example, a conditional certification may be issued and parallel run may proceed where the bank has substantially met MAS requirements and the only corrective action required of the bank by MAS after the certification process is that the data back-ups of non-essential borrower and facility characteristics be conducted slightly more frequently than is practised by the bank, say every 3 months instead of 6 months.

[5] BCBS, op. cit., paragraph 264 and 265.

4.3 Basel II also requires that banks' internal rating and default and loss estimates must play an essential and pervasive role in the bank's operations ("use test"). In addition, a bank must demonstrate that it has been using rating systems and employing estimates of LGDs and EADs that are broadly in line with the minimum requirements articulated in the Basel II rules for at least 3 years prior to "qualification",[6] with the proviso that improvements to a rating system do not render it non-compliant.[7]

4.4 A 3-year transitional concession has also been granted for this requirement in respect of the Foundation IRB approach.[8] We propose **not to relax the requirement for three years of use of a rating system prior to qualification**, that is, the rating system must have been in use for the three years before a bank uses it to compute capital requirements. We consider the use test a critical part of the certification process, hence the 3-year use test requirement might not be meaningfully fulfilled if we allowed banks a 3-year transitional concession.

SECTION 5 TRANSITIONAL AND PERMANENT EXCLUSIONS

5.1 Basel II provides that certain asset classes may be excluded from full rollout of the IRB approach under several exemptions, subject to supervisory approval. The exemptions are for:

- Exposures in non-significant business units as well as asset classes that are immaterial in terms of size and perceived risk profile;[9] and
- Equity exposures (see paragraph 5.7ff below for details).

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[6] BCBS, ibid., paragraph 444. We read "qualification" to mean the date on which a bank begins using the IRB approach to calculate its capital requirements for regulatory capital purposes.

[7] BCBS, ibid., paragraph 445.

[8] BCBS, ibid., paragraph 264.

[9] BCBS, ibid., paragraph 259.

EXCLUSIONS FOR NON-EQUITY EXPOSURES

5.2 Beyond the end of the rollout period, a bank may use the Standardised Approach for computing its Pillar One capital requirement only in respect of business units, asset classes or sub-classes that are immaterial in size and risk profile. These have to be specifically approved for exclusion by MAS. Exclusions are concessions and may be revoked if the excluded portfolios become significant.

5.3 When proposing exclusions in the submission of its rollout plan, a bank must show why it considers the business unit, asset class or sub-class to be immaterial both in terms of size and risk profile. As business unit boundaries are not specified in Basel II, the bank must also show how it defines the boundaries of a putative immaterial business unit and how it allocates exposures to that business unit on an on-going basis.

5.4 When approving permanent exclusions, MAS will consider not only compliance with the overall limit (as specified below in paragraph 5.6) but also risk concentrations that may be present in excluded portfolios.

5.5 When MAS gives a bank permission to exclude a business unit or an asset class or sub-class from the IRB Approach, the exclusion applies to the entire business unit, asset class or sub-class so excluded within a given jurisdiction. That is, a bank may not choose to classify only some exposures from the business unit, asset class or sub-class as immaterial.

5.6 On a continuing basis, we propose that the bank must ensure that the aggregate Standardised Approach **credit risk capital requirements of the business units, asset classes or sub-classes excluded from the IRB Approach do not exceed 10% of the total Pillar One banking book credit risk capital requirement**.

EXCLUSIONS FOR EQUITY EXPOSURES

5.7 We propose that, subject to MAS' approval, **a bank may exclude banking book equity exposures from the IRB approach if they are in aggregate not material**, according to the definition of materiality in Basel II.[10]

5.8 We **do not intend to permit any other transitional or permanent exclusion of banking book equity exposures** from the IRB approach.[11]

OTHER EXCLUSIONS

5.9 We do not intend to permit any other permanent exclusions from the IRB approach apart from those discussed above. Unless they have been classified as an immaterial asset class, sovereign and bank exposures may not be permanently excluded from the IRB approach. Our approach to certification of models for sovereigns and banks will be flexible to take into account the paucity of default data in these two asset classes.

[10] BCBS, ibid., paragraph 358.

[11] C.f. BCBS, ibid., paragraphs 267, 356 and 357.

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