

**DATE:** July 11, 2003

**MEMORANDUM TO:** Board of Directors

**FROM:** Michael J. Zamorski  
Director  
Division of Supervision and Consumer Protection

**SUBJECT:** Basel II Capital Accord  
Draft Supervisory Guidance on Internal Ratings-Based  
Systems for Corporate Credit

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**Proposal:** That the Board of Directors of the Federal Deposit Insurance Corporation (Board) approve publication of the attached joint Draft Supervisory Guidance on Internal Ratings-Based Systems for Corporate Credit (Guidance) in the Federal Register for a 90 day comment period. This Guidance details Agency expectations for banking institutions adopting the Advanced Internal Ratings-Based Approach (IRB) under the proposed New Capital Accord being developed by the Basel Committee on Banking Supervision. This Guidance would be issued on an interagency basis by the FDIC, the Board of Governors of the Federal Reserve System, the Office of the Comptroller of the Currency, and the Office of Thrift Supervision (Agencies). The Guidance seeks industry and public comment and is intended to supplement the Advance Notice of Proposed Rulemaking regarding *Risk-Based Capital Guidelines; Internal Ratings-Based Capital Requirement* (ANPR).

**Recommendation:** That the Board approve issuance of the Guidance

**Concur:**

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William F. Kroener, III  
General Counsel

**Background:** Under the New Capital Accord's IRB approach for credit risk, qualifying banks will implement complex credit risk measurement processes that will underpin the determination of minimum regulatory risk-based capital requirements for various types of credit. The subject Guidance focuses on corporate credit supervisory expectations for banking organizations adopting the IRB. Guidance on retail credit, commercial real estate lending, securitizations, and other portfolios not specifically dealt with in this Guidance will be issued at a later date.

This Guidance is intended to provide supervisors and institutions with a clear description of the essential components and characteristics of an acceptable IRB framework. Toward that end, the document highlights IRB system regulatory standards that are principle-based to enable institutions to implement the framework in a flexible manner. However for instances in which prudential concerns or the need for standardization override the desire for flexibility, the supervisory standards are more detailed. Ultimately, institutions must have credit risk management practices that are consistent with the substance and spirit of the concepts in this Guidance.

The IRB conceptual framework outlined in this document is neither intended to dictate the precise manner by which institutions should seek to meet supervisory expectations, nor to provide technical Guidance on how to develop such a framework. This document is written for readers who are familiar with the proposed IRB approach for minimum regulatory capital articulated in the ANPR and will be supplemented with examination procedures at a later date.

**Discussion:** The primary objective of the IRB approach is to enhance the credit risk sensitivity of regulatory capital requirements. To accomplish that objective, IRB harnesses a bank's own risk rating and quantification capabilities. The degree to which a bank will need to modify its own credit risk management practices to deliver accurate and consistent IRB risk parameters will vary from institution to institution.

A key tenet of the attached Guidance is that rating systems will operate dynamically. That is, as ratings are assigned, quantified and used, estimates will be compared with actual results and data will be maintained and updated to support oversight and validation efforts and to better inform future estimates. The rating system review and internal audit functions will serve as control mechanisms that ensure that the process of ratings assignment and quantification are functioning according to policy and design and that noncompliance and weaknesses are identified, communicated to senior management and the board, and addressed in a timely fashion. Rating systems with appropriate data and oversight feedback mechanisms foster a learning environment that promotes integrity in the rating system and continuing refinement.

Institutions qualifying for treatment under the New Capital Accord, will be expected to have an IRB system consisting of four interdependent components, as follows:

1. A system that assigns ratings and validates their accuracy,
2. A quantification process that translates risk ratings into IRB parameters,
3. A data maintenance system that supports the IRB system, and,
4. Oversight and control mechanisms that are designed to ensure the system is functioning as intended and producing accurate ratings.

Evaluating compliance with each of the standards individually will not be sufficient to determine an institution's overall compliance. Rather, supervisors and institutions must also evaluate how well the various components of an institution's IRB system complement and reinforce one another to achieve the overall objective of accurate measures of risk. This will include an assessment of the adequacy of independence inherent in the system.

In performing their evaluation, supervisors will need to exercise considerable supervisory judgment, both in evaluating the individual components and the determining the effectiveness of the overall IRB framework. The following pages highlight key supervisory expectations for each of the four IRB components.

## Ratings Assignment

The first component of an IRB system involves the assignment and validation of ratings. Ratings must be accurately and consistently applied to all corporate credit exposures and be subject to initial and ongoing validation. Institutions will have latitude in designing and operating IRB rating systems subject to five broad standards

- Two-dimensional risk-rating system – IRB institutions must be able to make meaningful and consistent differentiations among credit exposures along two dimensions—obligor default risk and loss severity in the event of a default.
- Rank order risks – IRB institutions must rank obligors by their likelihood of default, and facilities by the loss severity expected in default.
- Calibration – IRB obligor ratings must be calibrated to values of the probability of default (PD) parameter and loss severity ratings must be calibrated to values of the loss given default (LGD) parameter.
- Accuracy – Actual long-run actual default frequencies for obligor rating grades must closely approximate the PDs assigned to those grades and realized loss rates on loss severity grades must closely approximate the LGDs assigned to those grades.
- Validation process – IRB institutions must have ongoing validation processes for rating systems that include the evaluation of developmental evidence, process verification, benchmarking, and the comparison of predicted parameter values to actual outcomes (back-testing).

## Quantification

The second component of an IRB system is a quantification process. Since the assignment of obligor and facility ratings may be done separately from the quantification of the associated PD and LGD parameters, quantification is addressed as a separate process. In addition to PD and LGD, the quantification process must produce a value for EAD and for the effective remaining maturity M. The quantification of those four parameters will be expected to be the result of a disciplined process, the key considerations for effective quantification are as follows:

- Process – IRB institutions must have a fully specified process covering all aspects of quantification (reference data, estimation, mapping, and application).
- Documentation – The quantification process, including the role and scope of expert judgment, must be fully documented and updated periodically.
- Updating – Parameter estimates and related documentation must be updated regularly.
- Review – A bank must subject all aspects of the quantification process, including design and implementation, to an appropriate degree of independent review and validation.
- Constraints on Judgment – Judgmental adjustments may be an appropriate part of the quantification process, but must not be biased toward lower risk estimates.
- Conservatism – Parameter estimates must incorporate a degree of conservatism that is appropriate for the overall robustness of the quantification process.

### Data Maintenance

The third component of an IRB system is an advanced data management system that produces credible and reliable risk estimates. The broad standard governing an IRB data maintenance system is that it supports the requirements for the other IRB system components, as well as the institution's broader risk management and reporting needs. Institutions will have latitude in managing their data, subject to the following key data maintenance standards:

- Life Cycle Tracking -- institutions must collect, maintain, and analyze essential data for obligors and facilities throughout the life and disposition of the credit exposure.
- Rating Assignment Data -- institutions must capture all significant quantitative and qualitative factors used to assign the obligor and loss severity rating.
- Support of IRB System -- data collected by institutions must be of sufficient depth, scope, and reliability to:
  - validate IRB system processes;
  - validate parameters;

- refine the IRB system;
- develop internal parameter estimates;
- apply improvements historically;
- calculate capital ratios;
- produce internal and public reports;
- support risk management.

### Control and Oversight Mechanisms

The fourth component of an IRB system consists of control and oversight mechanisms that ensure that the components of the IRB system are functioning as intended. Given the various uses of internal risk ratings, including their direct link to regulatory capital requirements, there is enormous, sometimes conflicting, pressure on the accuracy and consistency of ratings. Institutions will have latitude in designing and implementing their control structures subject to the following broad standards:

- Interdependent System of Controls -- IRB institutions must implement a system of interdependent controls that include the following elements:
  - independence,
  - transparency,
  - accountability,
  - use of ratings,
  - rating system review,
  - internal audit and,
  - board and senior management oversight.
- Checks and Balances -- Institutions must combine the various control mechanisms in a way that provides checks and balances for ensuring IRB system integrity.

**Conclusion:** This draft Guidance was prepared jointly with the Agencies, with consultation with state banking supervisors. The document represents best practices gleaned from a series of pilot reviews at large banks whereby supervisors evaluated and compared current practices at institutions with the concepts and requirements for an IRB framework. We recommend that the Board authorize publication in the Federal Register of the attached Guidance for review and public comment.

Attachment

Concur:

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John M. Brennan  
Deputy to the Chairman