

# **IRB Implementation**

## **Supervisory Expectations and Implementation Challenges**

**May 2003**

# Objectives of Supervisory IRB Efforts

- Prepare supervisors and banks for the proposed regulatory capital framework relating to credit risk.
- Ensure regulatory agency consistency in the implementation of supervisory initiatives relating to IRB.
- Reinforce and advance risk management practices at banking organizations.
- Enhance the supervision of credit risk management systems.

# What Have Supervisors Done to Prepare?

- Evaluated current banking risk management practices relative to the IRB proposals.
  - On-site pilot reviews of eight large banks for detailed evaluation of current practice and dialogue on implementation issues
  - Limited scope reviews
- Developing guidance for corporate IRB outlining supervisory expectations and acceptable range of practice.
- Developing and testing techniques for gathering data and benchmarking internal ratings using Shared National Credit data.

## Supervisory Guidance

- Supervisory guidance will indicate how IRB will be implemented in the United States.
- Intended to assist banks and supervisors in interpreting CP3 and assist in dialogue on key issues.
- Goal is to have supervisory guidance for corporate IRB by July 2003 - timed with release of ANPR.
- Supervisory guidance for other IRB portfolios will be completed (e.g., retail, CRE) in 2004.

# Supervisory Guidance - Corporate

- The supervisory guidance presents a framework for a qualifying IRB system, based on four critical and interdependent subsystems.
- Each subsystem represents a chapter in the guidance:
  - **Rating Systems** - a system that assigns ratings and validates their accuracy
  - **Quantification** - a quantification process that translates risk ratings into IRB parameters (PD, LGD, EAD)
  - **Data** - a data maintenance system that supports the risk rating system
  - **Controls** - oversight and control mechanisms that are designed to ensure the system is producing accurate and consistent ratings

# Rating Systems

- Banks will have latitude in designing and operating IRB rating systems but all systems must meet certain requirements:
  - Dimensions - two dimensional, appropriately differentiates risk, covers all material portfolios.
  - Stress - Obligor and facility ratings must consider the impact of economic weakness.
  - Calibration - Obligor and facility ratings must be calibrated to PD and LGD, respectively.
  - Accuracy - Actual defaults/loss rates for rating grades must reasonably reflect the PDs and LGDs assigned.
  - Validation - Validation processes must include: developmental evidence, compliance with policies, benchmarking, and back-testing.

# Quantification (PD, LGD, EAD)

- The guidance presents a four-element framework that can be applied to ratings quantification.
- These elements are:
  - Data - construct a reference data source
  - Estimation - apply statistical techniques to the reference data to derive parameter estimates
  - Mapping - create a link between the reference data and a bank's actual portfolio data
  - Application - apply parameter estimates to each exposure in the portfolio

## Quantification (cont.)

- General principles, intended to assure a robust quantification process, apply to each of the four elements:
  - specified and well-documented process
  - regular updates of estimates
  - independent review
  - appropriate conservatism given limited data or untested processes

## Data Maintenance

- Banks should collect credit data at all points over the life cycle of the loan -- from “cradle-to-grave.”
- Banks should capture key criteria used to assign obligor and facility ratings.
- Banks need good data in order to:
  - Validate the rating process and parameters
  - Refine rating system
  - Apply improvements historically
  - Develop internal parameter estimates
  - Calculate capital ratios
  - Produce internal and public reports
  - Support risk management
- Banks will need to have a data system in place well in advance of implementation date.

# Oversight and Control Mechanisms

- Banks are expected to have a strong system of controls to ensure rating system integrity and to keep incentive conflicts in check.
- Banks will have latitude in designing and implementing their control structures subject to three broad principles:
  - Banks must employ independence, accountability, transparency and use of ratings in ways that promote accurate rating systems.
  - Banks must employ ratings review to evaluate the effectiveness of the rating system
  - Banks will use internal audit and senior management/board oversight to ensure that control mechanisms are functioning as intended.

## Concluding Thoughts

- As of 2003, much work needs to be done by banks and supervisors to make practical the full implementation of the ideals advanced by Basel.
- Implementation will require extensive collaboration and dialogue between banks and supervisors in understanding, clarifying and addressing key issues.
- Regardless of the specifics of Basel, banks should continue to upgrade their risk management practices with more advanced techniques if they are to remain sound, support economic efficiency and prosper.