

- Support risk management.

Control and Oversight Mechanisms

The fourth component of an IRB system is comprised of control and oversight mechanisms that ensure that the various components of the IRB system are functioning as intended (see Chapter 4). Given the various uses of internal risk ratings, including their direct link to regulatory capital requirements, there is enormous, sometimes conflicting, pressure on banks' internal rating systems. Control structures are 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.

The system of oversight and controls required for an effective IRB system may operate in various ways within individual institutions. This guidance does not prescribe any particular organizational structure for IRB oversight and control mechanisms. Banks have broad latitude to implement structures that are most effective for their individual circumstances, as long as those structures support and enhance the institution's ability to satisfy the supervisory standards expressed in this document.

C. Scope of Guidance

This draft guidance reflects work performed by supervisors to evaluate and compare current practices at institutions with the concepts and requirements for an IRB framework. For instances in which a range of practice was observable, examples are provided on how certain practices may or may not qualify. However, in many other instances, practices were at such an early stage of development that it was not feasible to describe specific examples. In those cases, requirements tend to be principle-based and without examples. Given that institutions are still in the early stages of developing qualifying IRB systems, it is expected that this guidance will evolve over time to more explicitly take into account new and improving practices.

D. Timing

S. An IRB system must be operating fully at least one year prior to the institution's intended start date for the advanced approach.

As noted in the ANPR, the significant challenge of implementing a fully complying IRB system requires that institutions and supervisors have sufficient time to observe whether the IRB system is delivering risk-based capital figures with a high level of integrity. The ability to observe the institution's ratings architecture, validation, data maintenance and control functions in a fully operating environment prior to implementation will help identify how well the IRB system design functions in practice. This will be particularly important given that in the first year of implementation institutions will not only be subject to the new minimum capital requirements, but will also be disclosing risk-based capital ratios for the public to rely upon in the assessment of the institution's financial health.

II. Ratings for IRB Systems

A. Overview

This chapter describes the design and operation of risk-rating systems that will be acceptable in an internal ratings-based (IRB) framework. Banks 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 actual 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).

B. Credit Ratings

In general, a credit rating is a summary indicator of the relative risk on a credit exposure. Credit ratings can take many forms. The most widely known credit ratings are the public agency ratings, which are expressed as letters; bank internal ratings tend to be expressed as whole numbers—for example, 1 through 10. Some rating model outputs are expressed in terms of probability of default or expected default frequency, in which case they may be more than relative measures of risk. Regardless of the form, meaningful credit ratings share two characteristics:

- They group credits to discriminate among possible outcomes.
- They rank the perceived levels of credit risk.

Banks have used credit ratings of various types for a variety of purposes. Some ratings are intended to rank obligors by risk of default and some are intended to rank facilities¹ by expected loss, which incorporates risk of default and loss severity. Bank rating systems that are geared solely to expected loss will need to be amended to meet the two-dimensional requirements of the IRB approach.

Rating Assignment Techniques

Banks use different techniques, such as expert judgment and models, to assign credit risk ratings. For banks using the IRB approach, how ratings are assigned is important because different techniques will require different validation processes and control mechanisms to ensure the integrity of the rating system. To assist the discussion of rating architecture requirements, described below are some of the current rating assignment techniques. Any of these techniques—expert judgment, models, constrained judgment, or a combination thereof—could be acceptable within an IRB system, provided the bank meets the standards outlined in this document.

Expert Judgment

Historically, banks have used expert judgment to assign ratings to commercial credits. With this technique, an individual weighs relevant information and reaches a conclusion about the appropriate risk rating. Presumably, the rater makes informed judgments based on knowledge gained through experience and training.

¹ Facilities—loans, lines, or other separate extensions of credit to an obligor.