

including both increases and decreases in relevant equity values over a long-term data period. The data used should be sufficient to provide conservative, statistically reliable, and robust loss estimates that are not based purely on subjective or judgmental considerations.

The parameters and assumptions used in a VaR model must be subject to a rigorous and comprehensive regime of stress-testing. Banking organizations utilizing VaR models would be required to subject their internal model and estimation procedures, including volatility computations, to either hypothetical or historical scenarios that reflect worst-case losses given underlying positions in both public and private equities. At a minimum, banking organizations that use a VaR model would be required to employ stress tests to provide information about the effect of tail events beyond the level of confidence assumed in the internal models approach.

Banking organizations using non-VaR internal models that are based on stress tests or scenario analyses would have to estimate losses under worst-case modeled scenarios. These scenarios would have to reflect the composition of the organization's equity portfolio and should produce capital charges at least as large as those that would be required to be held against a representative market index under a VaR approach. For example, for a portfolio consisting primarily of publicly held equity securities that are actively traded, capital charges produced using historical scenario analyses would have to be greater than or equal to capital charges produced by a baseline VaR approach for a major index that is representative of the institution's holdings.

The measure of an equity exposure on which A-IRB capital requirements would be based would be the value of the equity presented in a banking organization's financial statements. For investments held at fair value, the exposure amount would be equal to the fair value presented in the balance sheet. For investments held at the lower of cost or market value, the exposure amount would be equal to the cost or market value presented in the balance sheet.

The loss estimate derived from the internal model would constitute the A-IRB capital charge to be assessed against the equity exposure. The A-IRB equity capital charge would be incorporated into an institution's risk-based capital ratio through the calculation of risk-weighted equivalent assets. To convert the A-IRB equity capital charge into risk-weighted

equivalent assets, a banking organization would multiply the capital charge by a factor of 12.5.

Consistent with the general risk-based capital rules, 45 percent of the positive change in value held in the tax-adjusted separate component of equity—that is, 45 percent of revaluation gains on available-for-sale (AFS) equity securities—would be includable in Tier 2 capital under the A-IRB framework.

Comment is specifically sought on whether the measure of an equity exposure under AFS accounting continues to be appropriate or whether a different rule for the inclusion of revaluation gains should be proposed.

### *C. Supervisory Assessment of A-IRB Framework*

A banking organization would have to satisfy all the A-IRB infrastructure requirements and supervisory standards before it would be able to use the A-IRB approach for calculating capital requirements for credit risk. This section describes key elements of the framework on which the Agencies propose to base the A-IRB qualifying requirements for U.S. banking organizations. The Agencies intend to provide more detailed implementation guidance in regard to these issues for wholesale and retail exposures, as well as for equity and securitization exposures. As noted earlier, draft guidance for corporate exposures that identifies associated supervisory standards was published elsewhere in today's **Federal Register**.

#### *Overview of Supervisory Framework*

Many of the supervisory standards are focused on requirements for a banking organization's internal risk rating system. Emphasis is placed on a banking organization's ability to rank order and quantify risk in a consistent, reliable and valid manner. In sum, a banking organization's internal risk rating system would have to provide for a meaningful differentiation of the riskiness of borrowers, as well as the risks inherent in individual transactions. To ensure the reliability of these estimates, internal risk rating systems would need to be subject to review by independent control units. Data sources and estimation methods used by banking organizations would need to be sufficiently robust to support the production of consistent quantitative assessments of risk over time. Finally, to ensure that ratings are not derived solely for regulatory capital purposes, internal risk rating systems and quantification methods would need to form an integral part of the management of the institution, as outlined below.

It is important to emphasize that the Agencies believe that meeting the A-IRB infrastructure requirements and supervisory standards will require significant efforts by banking organizations. The A-IRB supervisory standards will effectively "raise the bar" in regard to sound credit risk management practices.

#### *Rating System Design*

The design of an internal risk rating system is key to its effectiveness. By definition, a rating system comprises all of the processes that support the assessment of credit risk, the assignment of internal risk ratings, and the quantification of default and loss estimates. Banking organizations would be able to rely on one or more systems for assessing their credit risk exposures. When this is the case, the banking organization would have to demonstrate that each system used for A-IRB capital purposes complies with the supervisory standards.

The Agencies believe that banking organizations' internal rating systems should accurately and consistently differentiate degrees of risk. For wholesale exposures, banking organizations would need to have a two-dimensional rating system that separately assesses the risk of borrower default, as well as transaction-specific factors that focus on the amount that would likely be collected in the event of default. Such factors may include whether an exposure is collateralized, its seniority, and the product type. In contrast to the individual evaluation required for wholesale exposures, retail exposures would be assessed on a pool basis. Banking organizations would need to group their retail exposures into portfolio segments based on the risk characteristics that they consider relevant—for example borrower characteristics such as credit scores or transaction characteristics such as product or collateral type. Delinquent or defaulted exposures would need to be separated from those that are current.

Banking organizations would be required to define clearly their wholesale rating categories and retail portfolio segments. The clarity and transparency of the ratings criteria are critical to ensuring that ratings are assigned in a consistent and reliable manner. The Agencies believe it is important for banking organizations to document the operating procedures for their internal risk rating system in writing. For example, the documentation should describe which parties within the organization would have the authority to approve exceptions. Further, the documentation