

other public-sector entities (PSEs). Within the wholesale exposure category, in addition to the treatment for general corporate lending, there would be four sub-categories of specialized lending (SL). These are project finance (PF), object finance (OF), commodities finance (CF), and commercial real estate (CRE). CRE is further subdivided into low-asset-correlation CRE, and high-volatility CRE (HVCRE).

For each wholesale exposure, an institution would assign four quantitative risk drivers (inputs): (1) Probability of default (PD), which measures the likelihood that the borrower will default over a given time horizon; (2) loss given default (LGD), which measures the proportion of the exposure that will be lost if a default occurs; (3) exposure at default (EAD), which is the estimated amount owed to the institution at the time of default; and (4) maturity (M), which measures the remaining economic maturity of the exposure. Institutions generally would be able to take into account credit risk mitigation techniques (CRM), such as collateral and guarantees (subject to certain criteria), by adjusting their estimates for PD or LGD. The wholesale A-IRB risk weight function would use all four risk inputs to produce a specific capital requirement for each wholesale exposure. There would be a separate, more conservative risk weight function for certain acquisition, development, and construction loans (ADC) in the HVCRE category.

#### Retail Exposures

Within the retail category, three distinct risk weight functions are proposed for three product areas that exhibit different historical loss experiences and different asset correlations.<sup>5</sup> The three retail sub-categories would be: (1) Exposures secured by residential mortgages and related exposures; (2) qualifying revolving exposures (QRE); and (3) other retail exposures. QRE would include unsecured revolving credits (such as credit cards and overdraft lines), and other retail would include most other types of exposures to individuals, as well as certain exposures to small businesses. The key inputs to the three retail risk weight functions would be a banking organization's estimates of PD, LGD, and EAD. There would be no explicit M component to the retail A-IRB risk weight functions. Unlike

wholesale exposures, for retail exposures, an institution would assign a common set of inputs (PD, LGD, and EAD) to predetermined pools of exposures, which are typically referred to as segments, rather than to individual exposures.<sup>6</sup> The inputs would be used in the risk weight functions to produce a capital charge for the associated pool of exposures.

#### Equity Exposures

Banking organizations would use a market-based internal model for determining capital requirements for equity exposures in the banking book. The internal model approach would assess capital based on an estimate of loss under extreme market conditions. Some equity exposures, such as holdings in entities whose debt obligations qualify for a zero percent risk weight, would continue to receive a zero percent risk weight under the A-IRB approach to equities. Certain other equity exposures, such as those made through a small business investment company (SBIC) under the Small Business Investment Act or a community development corporation (CDC) or a community and economic development entity (CEDE), generally would be risk weighted at 100 percent under the A-IRB approach to equities. Banking organizations that are subject to the Agencies' market risk capital rules would continue to apply those rules to assess capital against equity positions held in the trading book.<sup>7</sup> Banking organizations that are not subject to the market risk capital rules would treat equity positions in the trading account as if they were in the banking book.

#### Securitization Exposures

Under the A-IRB treatment for securitization exposures, a banking organization that originates a securitization would first calculate the A-IRB capital charge that would have been assessed against the underlying exposures as if the exposures had not been securitized. This capital charge divided by the size of the exposure pool

is referred to as KIRB. If an originating banking organization retains a position in a securitization that obligates the banking organization to absorb losses up to or less than KIRB, the banking organization would deduct the retained position from capital as is currently required under the general risk-based capital rules. The general risk-based capital rules, however, require a dollar-for-dollar risk-based capital deduction for certain residual interests retained by originating banking organizations in asset securitization transactions regardless of amount. The A-IRB framework would no longer require automatic deduction of such residual interests. The amount to be deducted would be capped at KIRB for most exposures. For a position in excess of the KIRB threshold, the originating banking organization would use an external-ratings-based approach (if the position has been rated by an external rating agency or a rating can be inferred) or a supervisory formula to determine the capital charge for the position.

Non-originating banking organizations that invest in a securitization exposure generally would use an external-ratings-based approach (if the exposure has been rated by an external rating agency or a rating can be inferred). For unrated liquidity facilities that banking organizations provide to securitizations, capital requirements would be based on several factors, including the asset quality of the underlying pool and the degree to which other credit enhancements are available. These factors would be used as inputs to a supervisory formula. Under the A-IRB approach to securitization exposures, banking organizations also would be required in some cases to hold regulatory capital against securitizations of revolving exposures that have early amortization features.

#### Purchased Receivables

Purchased receivables, that is, those that are purchased from another institution either through a one-off transaction or as part of an ongoing program, would be subject to a two-part capital charge: one part is for the credit risk arising from the underlying receivables and the second part is for dilution risk. Dilution risk refers to the possibility that contractual amounts payable by the underlying obligors on the receivables may be reduced through future cash payments or other credits to the accounts made by the seller of the receivables. The framework for determining the capital charge for credit risk permits a purchasing organization to use a top-down (pool) approach to estimating PDs and LGDs when the

<sup>6</sup> When the PD, LGD, and EAD parameters are assigned separately to individual exposures, it may be referred to as a "bottom-up" approach. When those parameters are assigned to predetermined sets of exposures (pools or segments), it may be referred to as a "top-down" approach.

<sup>7</sup> The market risk capital rules were implemented by the banking agencies in 1996. The market risk capital rules apply to any banking organization whose trading activity (on a consolidated worldwide basis) equals 10 percent or more of total assets, or \$1 billion or more. The market risk capital rules are found at 12 CFR Part 3, Appendix B (OCC), 12 CFR Parts 208 and 225, Appendix E (Board), and 12 CFR Part 325, Appendix C (FDIC). The OTS, to date, has not adopted the market risk capital rules.

<sup>5</sup> Asset correlation is a measure of the tendency for the financial condition of a borrower in a banking organization's portfolio to improve or degrade at the same time as the financial condition of other borrowers in the portfolio improve or degrade.