

relevant question is whether portfolios at large financial institutions are diversified across the various sub-sectors of the economy in a reasonably similar manner. If so, then the portfolio can be modeled as if there were only a single factor, namely, the credit cycle as a whole.

The Agencies seek comment on the conceptual basis of the A-IRB approach, including all of the aspects just described. What are the advantages and disadvantages of the A-IRB approach relative to alternatives, including those that would allow greater flexibility to use internal models and those that would be more cautious in incorporating statistical techniques (such as greater use of credit ratings by external rating agencies)? The Agencies also encourage comment on the extent to which the necessary conditions of the conceptual justification for the A-IRB approach are reasonably met, and if not, what adjustments or alternative approach would be warranted.

Should the A-IRB capital regime be based on a framework that allocates capital to EL plus UL, or to UL only? Which approach would more closely align the regulatory framework to the internal capital allocation techniques currently used by large institutions? If the framework were recalibrated solely to UL, modifications to the rest of the A-IRB framework would be required. The Agencies seek commenters' views on issues that would arise as a result of such recalibration.

#### *B. A-IRB Capital Calculations*

A common characteristic of the A-IRB capital formulas is that they calculate the actual dollar value of the minimum capital requirement associated with an exposure (or, in the case of retail exposures, a pool of exposures). This capital requirement must be converted to an equivalent amount of risk-weighted assets in order to be inserted into the denominator of a banking organization's risk-based capital ratios. Because the minimum risk-based capital ratio in the United States is 8 percent, the minimum capital requirement on any asset would be equal to 8 percent of the risk-weighted asset amount associated with that asset. Therefore, in order to determine the amount of risk-weighted assets to associate with a given minimum capital requirement, it would be necessary to multiply the dollar capital requirement generated by the A-IRB formulas by the reciprocal of 8 percent, or 12.5.

The following subsections of the ANPR detail the specific features of the A-IRB capital formulas for two principal categories of credit exposure: wholesale and retail. Both of these subsections include a proposed definition of the exposure category, a description of the banking organization-

estimated inputs required to complete the capital calculations, a description of the specific calculations required to determine the A-IRB capital requirement, and tables depicting a range of representative results.

#### *Wholesale Exposures: Definitions and Inputs*

The Agencies propose that a single credit exposure category—wholesale exposures—would encompass most non-retail credit exposures in the A-IRB framework. The wholesale category would include the sub-categories of corporate, sovereign, and interbank exposures as well as all types of specialized lending exposures. Wholesale exposures would include debt obligations of corporations, partnerships, limited liability companies, proprietorships, and special-purpose entities (including those created specifically to finance and/or operate physical assets). Wholesale exposures also would include debt obligations of banks and securities firms (interbank exposures), and debt obligations of central governments, central banks, and certain public-sector entities (sovereign exposures). The wholesale exposure category would not include securitization exposures, or certain small-business exposures that are eligible to be treated as retail exposures.

The Agencies propose that advanced approach banking organizations would use the same A-IRB capital formula to compute capital requirements on all wholesale exposures with two exceptions. First, wholesale exposures to small- and medium-sized enterprises (SMEs) would use a downward adjustment to the wholesale A-IRB capital formula typically based on borrower size. Second, the A-IRB capital formula for HVCRE loans (generally encompassing certain speculative ADC loans) would use a higher asset correlation assumption than other wholesale exposures.

The proposed A-IRB capital framework for wholesale exposures would require banking organizations to assign four key risk inputs for each individual wholesale exposure: (1) Probability of default (PD); (2) loss given default (LGD); (3) exposure at default (EAD); and (4) effective remaining maturity (M). In addition, to use the proposed downward adjustment for wholesale SMEs described in more detail below, banking organizations would be required to provide an additional input for borrower size (S).

#### *Probability of Default*

The first principal input to the wholesale A-IRB calculation is the measure of PD. Under the A-IRB approach, a banking organization would assign an internal rating to each of its wholesale obligors (or in other words, assign each wholesale exposure to an internal rating grade applicable to the obligor). The internal rating would have to be produced by a rating system that meets the A-IRB infrastructure requirements and supervisory standards for wholesale exposures, which are intended to ensure (among other things) that the rating system results in a meaningful differentiation of risk among exposures. For each internal rating, the banking organization must associate a specific one-year PD value. Various approaches may be used to develop estimates of PDs; however, regardless of the specific approach, banking organizations would be expected to satisfy the supervisory standards. The minimum PD that may be assigned to most wholesale exposures is 3 basis points (0.03 percent). Certain wholesale exposures are exempt from this floor, including exposures to sovereign governments, their central banks, the BIS, IMF, European Central Bank, and high quality multilateral development banks (MDBs) with strong shareholder support.

The Agencies intend to apply standards to the PD quantification process that are consistent with the broad guidance outlined in the New Accord. More detailed discussion of those points is provided in the draft supervisory guidance on IRB approaches for corporate exposures published elsewhere in today's **Federal Register**.

#### *Loss Given Default*

The second principal input to the A-IRB capital formula for wholesale exposures is LGD. Under the A-IRB approach, banking organizations would estimate an LGD for each wholesale exposure. An LGD estimate for a wholesale exposure should provide an assessment of the expected loss in the event of default of the obligor, expressed as a percentage of the institution's estimated total exposure at default. The LGD for a defaulted exposure would be estimated as the expected economic loss rate on that exposure taking into account, where appropriate, recoveries, workout costs, and the time value of money. Banking organizations would estimate LGDs as the loss severities expected to prevail when default rates are high, unless they have information indicating that recoveries on a particular