

the validation requirements described in Chapters 1 and 2. These requirements include validating the institution's IRB system processes, including the "front end" aspects such as assigning ratings so that any issues can be identified early. The data must support efforts to identify whether raters and models are following rating criteria and policies and whether ratings are consistent across portfolios. In addition, data must support the validation of parameters, particularly the comparison of realized outcomes with estimates. Thorough data on default and disposition characteristics are of paramount importance for parameter back-testing.

A rich source of data for validation efforts provides insights on the performance of the IRB system, and contributes to a learning environment in which refinements can be made to the system. These potential refinements include enhancements to rating assignment controls, processes, criteria

or model coefficients, rating system architecture and parameter estimates.

Developing Parameter Estimates

As detailed in Chapter 2, institutions will be developing their PD, LGD, and EAD parameter estimates using reference data sets comprised of internal, pooled, and external data. Institutions are expected to work toward eventually using as much of their own experience as possible in their reference data sets.

Applying Rating System Improvements Historically

For loss severity estimates, institutions must record the basic structural characteristics of facilities and the factors used in developing the facility rating or LGD estimate. These often include the seniority of the credit, the amount and type of collateral, the most recent collateral valuation date and its fair value.

To maintain a consistent series of information for credit risk monitoring and validation purposes, institutions need to be able to apply historically improvements they make to their rating systems. In the example below, a bank experiences unexpected and rapid migrations and defaults in its grade 4 category during 2006. Analysis of the actual financial condition of borrowers that defaulted compared with those that did not suggests the debt-to-EBITDA range for its expert judgment criteria of 3.0 to 5.5 is too broad. Research indicates that grade 4 should be redefined to include only borrowers with debt-to-EBITDA ratios of 3.0–4.5 and grade 5 as 4.5–6.5. In 2007, the change is initiated, but prior years' numbers are not recast (see Exhibit A). Consequently, a break in the series prevents the bank from evaluating credit quality changes over several years and from identifying whether applying the new rating criteria historically provides reasonable results.

Exhibit A (Revision of Grades 4 and 5 in 2007)

	Distribution of Obligor Risk Grades (%)					Change
	2004	2005	2006	2007	2008	04-'08
1	1	1.1	1.2	1.2	1.3	0.3
2	10	11	12	13	13	3.0
3	22	23	24	26	25	3.0
4	30	30	32	16	17	(13.0)
5	20	21	19	33	34	14.0
6	8	7	7	7	6	(2.0)
7	4	4	3	2	1	(3.0)
D	5	2.9	1.8	1.8	2.7	(2.3)
Total	100	100	100	100	100	0

Recognizing the need to provide senior managers and board members with a consistent risk trend, the new criteria are applied historically to obligors in grades 4 and 5 as reflected in Exhibit B. The original ratings assigned to the grades are maintained along with notations describing what

the grade would be under the new rating criteria. If the precise weight an expert has given one of the redefined criteria is unknown, institutions are expected to make estimates on a best efforts basis. After the retroactive reallocation process, the bank observes that the mix of obligors in grade 5 declined

somewhat over the past several years while the mix in grade 4 increased slightly. This contrasts with the trend identified before the retroactive reallocation. The result is that the multiyear transition statistics for grades 4 and 5 provide risk managers a clearer picture of risk.