Summary of US bank views on downturn LGDs

The US agencies met representatives from J.P. Morgan Chase, KeyCorp, Washington Mutual, Wachovia, Bank of New York, HSBC, Wells Fargo, MBNA, Union Bank of California, Bank of America, and the Risk Management Association on January 24, 2005. In addition, written comments were received from Wachovia.

1. Paragraph 468 of the Basel II Framework Document requires that LGDs be calibrated to periods when "credit losses are substantially higher than average." What additional elaboration on this description would help your institution to quantify downturn LGDs?

As a general matter, banks emphasize the need for additional guidance as soon as possible, since they are currently making costly investments in risk-management information systems. Also, several express a view that regulators should provide more general guidance around LGD estimation practices to promote consistency.

   a. For example, in evaluating whether credit losses are substantially higher than average should losses be measured with respect to a single facility type, a business line, a bank's overall portfolio, or some other degree of aggregation?

Banks believe that stressing LGDs at the product-line level would be inconsistent with the current IRB framework. They argue that, all else equal, stressing LGD at the product-line level is more conservative than stressing LGD at a broader level such as the portfolio; if LGD cyclicality is not perfectly synchronized across products, different credit products will experience LGD peaks in different time periods. Guidance on LGD should recognize such diversification rather than assuming that all peaks occur simultaneously.

   b. Would it be useful for the LGD working group to articulate specific scenarios or quantitative benchmarks for describing periods of substantially higher than average credit losses?

Most banks believe that greater specificity would be useful, but at least one bank states that the current version of paragraph 468 is acceptable because it will encourage further research into downturn LGDs. One bank emphasizes that any scenario or benchmark should not penalize banks with access to longer data histories (e.g., downturn LGDs should not be tied to the worst year in a bank's historical loss database).

2. Describe how your institution plans to comply with the LGD quantification standards set forth in paragraph 468 through 472 of the Basel II Framework Document?

a. Does your institution currently have sufficient data and systems to estimate long-run default-weighted average LGDs?

The answer varies by portfolio. For C&I loans, one bank has collected recovery data on defaulted exposures from 1985 to 2000, however this bank believes that not all of these data are representative of current lending practices. Another bank has commercial default and loss data since 1996 and retail data from 1999 on. One bank has developed an internal reference dataset for mortgages that goes back to the mid-1990s. Data from vendors and/or regulatory call reports may provide information on mortgage loss severities during the early-1990s real-estate downturn, but the characteristics of mortgage products have changed significantly since the 1990s. For example, home equity lines of credit are now much more common and are underwritten differently; there is little relevant long-run data for quantifying LGDs on these products.

b. For what facility types or portfolios do you foresee the greatest challenges in estimating downturn LGDs?

Banks recognize that the challenges associated with quantifying default-weighted average LGDs arise in the quantification of downturn LGDs as well. Some banks argue that for certain product lines, such as commercial real estate loans and low-LTV residential mortgages, defaults are only observed during times of significant stress. For these products, default-weighted LGDs may be sufficient to capture stress so long as available data covers periods of high default rates. For other product lines, such as small business loans, defaults are observed throughout the business cycle. For these types of facilities explicit approaches for identifying downturn periods may be needed.

c. In cases where internal recovery data are sparse, for example because observed defaults are rare, how does your institution plan to quantify LGDs? To what extent will your quantification processes rely on expert judgment or external data?

Internal data on LGDs, particularly over a period long enough to quantify downturn LGDs, are quite limited. As a result a number of banks are considering augmenting analysis of internal data with information gleaned from external data. For example, rating agency data on the performance of commercial-mortgage-backed securities might be useful in the analysis of the cyclicality of commercial real estate exposures. Guidance on quantifying downturn LGDs should permit, and perhaps encourage, the use of external data. One bank points out that supervisors and banks recognize the value of pooling data on operation losses across banks for evaluating operation risk capital requirements. Pooling data on loss severities for low default-rate portfolios might provide similar benefits for LGD quantification.

d. How does your institution plan to develop LGDs and "best estimates of expected loss" for defaulted assets as described in paragraph 471 of the Framework Document?

There is a range of views regarding whether it would be appropriate to make use of charge-off data to calculate the best estimate of expected loss. There is a general recognition that U.S. accounting standards (FASB 114) are not consistent the notion of "economic loss" required in Basel II. One bank advocates simply applying a 100 percent risk-weight to the loan balance net of charge-offs, rather than estimating LGD. There is a range of views concerning the appropriate discount rate for deriving the present value of future recoveries (see below).

3. One approach to quantifying downturn LGDs would be to specify a functional relationship between long-run default-weighted average LGDs and downturn LGDs. One or more such functions – calibrated by supervisors – could be used as a guide to banks in developing internal estimates of downturn LGDs, or as a fallback for quantifying downturn LGDs in cases where data or systems are not sufficiently advanced
    a. Would one or more LGD mapping functions be a useful way of conveying supervisory expectations concerning the relationship between long-run default-weighted average LGDs and downturn LGDs?

In general, banks emphasize that most of them use and will continue to use average LGD as the input to internal risk management processes, including those that take into account LGD volatility. They therefore prefer a functional mapping to a requirement for internal estimation of downturn LGD.

Banks recognize that a reliance on own-estimates of downturn LGDs could result in inconsistent application of standards across banks. One bank argues that, given the range of current practice for calculating average LGDs, supervisory mapping functions that derive downturn LGDs from average LGDs would not necessarily lead to greater consistency in Pillar 1 capital requirements relative to own-estimates of downturn LGDs; however, this was not the general view of industry members. Banks are very concerned that mandatory supervisory mapping functions, when combined with conservative requirements in other elements of the LGD quantification process, would likely be "excessively" conservative. They generally feel that if mapping functions are proposed they should only be used as fallbacks when banks are unable to reliably estimate downturn LGD using their own data and methods. One bank notes that a supervisory function could promote consistency and serve as a valuable benchmark, but only if it were calibrated to actual data.

One bank notes that rating practices differ across banks, and in particular differ in the extent to which they reflect factors that are likely to be related to LGD volatility. To the extent that some banks may have cyclically varying inputs as factors in LGD assignment, a universally applied mapping function could have disparate impact.

b. For what portfolios, business lines, or facility types would such a function be most useful?

Broadly, banks feel that mapping functions would be most appropriate in cases where default-weighted average LGDs do not capture the effects of LGD volatility. Several banks believe that default-weighted average LGDs would be sufficiently close to downturn LGDs to obviate the need for mapping functions.

c. At what level of aggregation could such functions be applied? For example, would it be appropriate to provide a single function for all wholesale exposures, or would separate functions be needed for different types of wholesale exposures?

Banks generally argue against having too many mapping functions, and argue that the calibration of mapping functions should reflect the diversification of risks across business lines. One mapping function per portfolio (i.e., one for C&I, one for residential mortgages, one for QRE, etc.) might be appropriate. However one bank points out that its analysis of C&I loans suggests that LGDs for secured and unsecured exposures behave differently over the business cycle.

d. What data are available for calibrating mapping functions?

For C&I exposures, internal bank data may be available. For mortgages, research could make use of vender models and data from regulatory call reports. For commercial mortgages, data on the performance of commercial-mortgage-backed securities may be useful.

e. Do you have an alternative to the supervisory "mapping function" approach to propose for benchmarking or estimating downturn LGDs? What would be the advantages of this alternative approach versus the mapping function approach?

A number of banks argue that default-weighted average LGDs would be sufficient to capture relative volatility in loss severities and that the Pillar 2 supervisory review process should be used to address concerns that average LGDs do not fully reflect differences in the effects of systematic risk on recovery rates. One bank suggests that a mapping function approach could make use of bank-reported information on *both* the average LGD *and* the volatility of LGDs over a credit cycle.

4. Please describe any analysis your institution has undertaken to measure the extent to which recovery rates vary over time or are correlated with default rates.
   a. For what facilities, business lines, or portfolio do you observe or expect to observe significant systematic variation in loss severities over time? What facilities, business lines, or portfolios exhibit little systematic variation in loss severities? Are there any facilities, business lines, or portfolios which

in your judgment exhibit significantly high or low systematic variation in loss severities, but for which you lack convincing empirical evidence, perhaps because of data scarcity?

One bank has done empirical research suggesting that default-weighted average LGDs are appropriate for residential mortgages. Another bank has conducted analysis based on the ASRF model indicating that stress LGD should not differ significantly from default-weighted average LGD. The Risk Management Association is currently working on a study of LGD volatility in residential mortgages.

b. What factors contribute to or reduce systematic variation in loss severities over time? What facility characteristics (collateral, seniority, etc.) affect systematic variation in loss severities? How does the way workouts are managed (e.g. internal workouts versus secondary market sales) affect systematic variation in loss severities?

One bank has undertaken empirical work based on a long history of loss recovery data and finds somewhat surprisingly that unsecured corporate exposures exhibit greater LGD cyclicality than secured corporate exposures.

c. Some institutions have proposed using secondary market prices for defaulted obligations to measure LGDs (market LGDs) rather than data on the discounted value realized recoveries (workout LGDs). Do you observe differences in the degree of systematic variation in market versus workout LGDs?

There is considerable disagreement regarding whether "market" or "workout" LGDs are more appropriate. One bank argues that market LGDs are the most objective measure of the economic loss associated with an exposure. Another bank argues that managing recoveries on defaulted exposures is an important part of its business, and hence, workout LGDs are more appropriate.

d. There are a range of possible interest rates that could be used to discount future cash flows from defaulted exposures for the purpose of quantifying LGDs. Please describe your institution's approach to discounting recoveries. How does the approach used for discounting of future cash flows affect assessments of the degree of systematic variation in loss severities?

This discussion is closely related to the discussion of market versus workout LGDs. A bank that prefers to focus on market LGDs argues that it would be appropriate to use a discount rate consistent with the market's required rate of return on distressed assets. Other banks suggest that the discount rate should reflect a bank's overall cost of funds. One bank argues for a very low discount rate for discounting

recoveries (close to a risk-free rate) because these cash flows are known ex-post and therefore certain.

e. How does your institution deal with systematic variation in recovery rates for the purpose of managing economic capital? To the extent you have the capacity to measure loss severities that evolve over time as current conditions change, what types of LGD parameters do you use internally? For example do you use something akin to a long-run default-weighted average LGD, the most current LGD estimate available (i.e. a point-in-time measure), a downturn LGD, or some other metric?

One bank reports that it uses an economic capital model that takes expected LGDs as inputs, but incorporates assumptions about systematic risk in loss severities into economic capital calculations. Another bank says it uses conservative LGD calibrations for particular sub-portfolios where it believes average LGDs are too low. Many banks do not appear to explicitly deal with systematic risk in recovery rates, although many incorporate severity volatility in some way into economic capital calculations.

5. Paragraphs 434 through 437 of the Framework Document require that IRB banks establish internal stress-testing processes for assessing capital adequacy. Do you see any synergies between your stress-testing processes and procedures for measuring downturn LGDs?

In general banks do not see a clear link between stress-testing and procedures for measuring downturn LGD. One bank suggested that during Pillar 2 reviews supervisors could use information from stress-testing to identify risks associated with volatility in loss severities.