

RMA Global Operational Risk Forum

Eric Rosengren

Federal Reserve Bank of Boston

January 14, 2005

Overview

- LDCE overview
- Early observations on LDCE filing
- Observations on current practice
- Regulatory challenges

What is the LDCE?

- The LDCE is an interagency collection of operational loss data that occurred on or before June 30, 2004.
- The LDCE focuses on one of the major inputs to an AMA – internal loss data – which is used to determine the operational risk capital number and is reported in the 2004 QIS.

Current LDCE Status

- Roughly 20 institutions have submitted data, and we are still expecting a few more submissions.
- Variation in time series, so some banks have only recently completed data collection systems
- Currently have over 1 million loss events, though most of those are below \$10,000

How will supervisors use the data?

- The data should assist supervisors in understanding the results of the QIS.
- The data should help inform supervisors on progress made in collecting comprehensive loss data
- The data should aid in understanding how internal data are integrated into the capital calculation.

LDCE Will Help in Understanding Quantitative modeling

- Empirical work has used the previous LDCE, but many banks had incomplete data collection
- Incomplete data made it difficult to draw conclusions about differences across institutions, business lines, or causal types and whether these differences only reflected data collection problems.
- No time series element to earlier LDCE

Other issues for the LDCE

- Are some distributional assumptions inappropriate for modeling operational risk?
- Which areas are likely to have sufficient data to reasonably model with internal data?
- Are internal data a good indicator of operational risk capital differences across institutions?

Will there be feedback on the submissions?

- Feedback will occur in the spring – though that may vary by institution, depending on the quality and comprehensiveness of the submission.
- Spring/Summer – summary results will be made public
- Will be discussed at FRB – FRB Boston conference in May

Observations

- All institutions have made progress with data, though utilization of data differs
- Quantification is at the early stages at many banks
- Weighting of components of program varies significantly across institutions

Data Questions

- Some institutions are collecting all loss data while others are only collecting data above thresholds
- Is EL drawn from statistical modeling and how are data truncations incorporated?
- How are EL accounted for?
 - How will banks collecting only larger losses be able to document EL?
 - What rigor should be expected for demonstrating EL?

More Data Questions

- How will banks handle loss data from acquisitions and account for scaling. Few banks have tackled scaling issues.
 - Acquired banks are likely to have different data collection, making integration difficult
 - Most banks have limited time series, but as the time series increases, scaling assumptions will be important

External Data and Scenarios

- Wide variation in use of external data and scenarios. Much of the scenario analysis is Ad Hoc.
 - Scaling an issue for external data
 - Integrating scenarios into models remains a challenge
 - Use of scenarios and external data in quantitative modeling varies greatly

Modeling

- Wide variation in modeling. Some models are highly reliant on internal data while others are primarily driven by scenarios and external data
 - Variation in use of internal and external data, scenarios, and internal control factors may be more important than distributional assumptions

Double Counting In Models

- Four elements have not been integrated to avoid double counting
 - New controls that reduce internal losses could get credit in less internal losses, a lower probability of losses found in external data or scenarios, and credit for improvements in internal control factors.
 - More work needs to be done on integration of four elements.

Diversification Benefits

- Banks are making diversification benefit assumptions, but assumptions vary and often are not justified.
- Can make a large difference in capital so more work needs to be done in this area.

Legal Entity

- Some banks are not collecting legal entity information, while others can map data to legal entity.
- How is op risk estimated for smaller legal entities?
- Can loss data be mapped to large legal entities where AMA is feasible?

Regulatory Challenges

- Flexibility is important for AMA, but makes validation and benchmarking a challenge.
- Bank op risk models are evolving, making evaluation by regulators more difficult.
- Major assumptions have yet to be tested at most banks. Banks and regulators will need to work on this before implementation.

Additional Information

- QIS and LDCE can be found at www.ffiec.gov
- More information on using external and internal data can be found in the following papers:
- http://papers.ssrn.com/sol3/papers.cfm?abstract_id=395083
- http://papers.ssrn.com/sol3/papers.cfm?abstract_id=556823
- Boston Fed web site for operational risk
<http://www.bos.frb.org/bankinfo/oprisk/index.htm>

Questions?