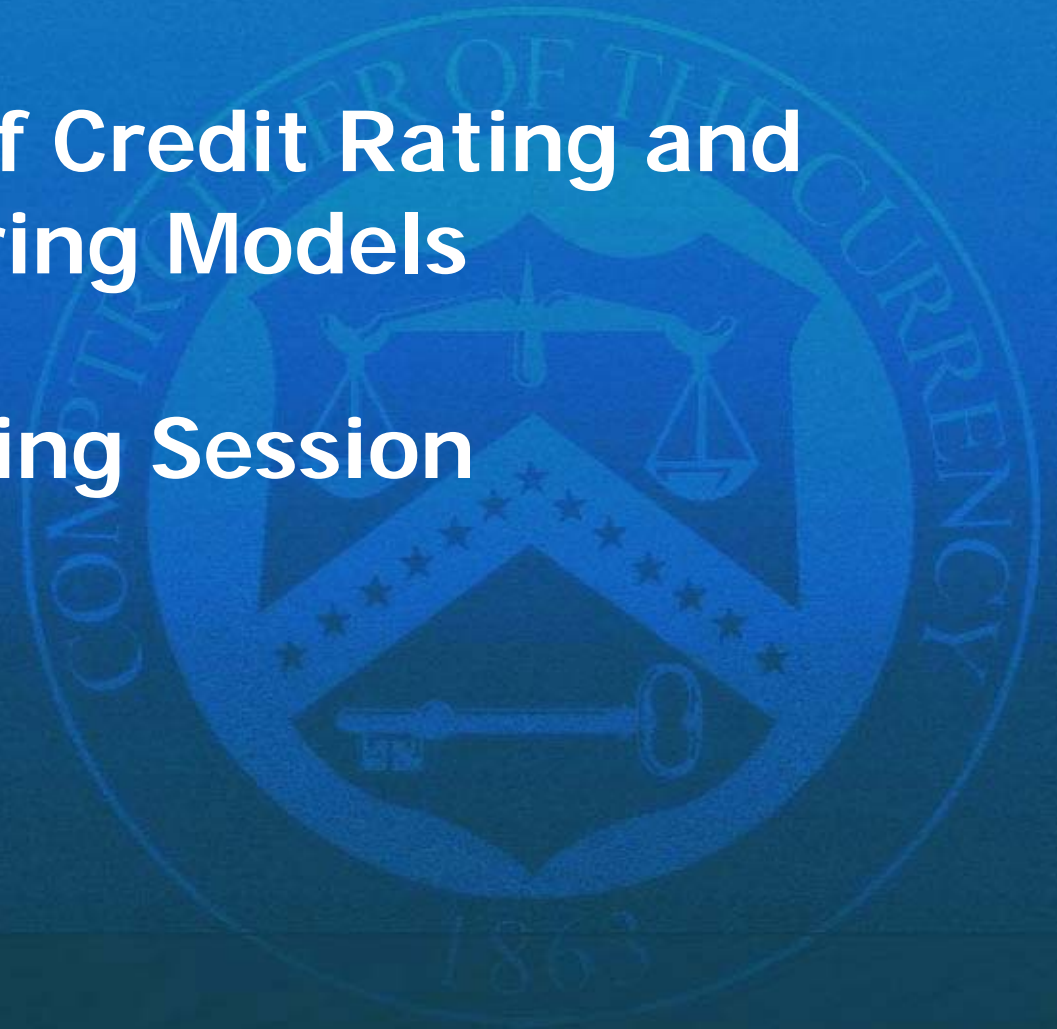




Comptroller of the Currency
Administrator of National Banks

Validation of Credit Rating and Scoring Models

Closing Session



The Finish Line



What conclusions should you take away from two days on **Validation of Credit Rating and Scoring Models?**

Opening Remarks:

Model Validation as a Process

- “Model risk” from logic, execution, and use
- Model risk is managed through a *validation process* as part of risk management
 - Not a “pass-fail” test
 - Done by the bank as part of sound management
- OCC Bulletin 2000-16 as a general framework
- Many “stubbornly difficult” elements

Session 1: Building and Validating Credit Rating and Scoring Models

- Developmental evidence and performance evaluation
 - Model development is a process
 - Models should be developed using sound modeling practices
 - Model verification is an integral part of the model development process
- Validation tools must suit the use and design of the model

Session 2: Evaluating Discriminatory Power and Forecast Performance

- Models can be built to different objectives
 - Models should be evaluated according to how they meet both design and use objectives
- Accuracy and precision are different – and each may be desirable in particular business uses of models
- Tools exist (or can be developed) to assess both accuracy and precision of forecasts, in addition to discriminatory power

Session 3: Examples of Model Design and Quantification

- Illustration using a corporate rating model
- Validation as a central aspect of model development
 - Integral to every stage of development
 - Validation should be planned as part of design process, not put off until model implementation
- Example focused on corporate rating
 - Retail differs in details and terminology, but not in fundamentals

Session 4: Process Verification and Data Maintenance

- General principles of independence, documentation, and cost-benefit trade-off
- Validate inputs and processing, not just outputs
 - Inputs: output from other models, internal raw data, external raw data, constructed variables
 - Processing: validating code and validating theory
- Probably not as glamorous as other parts of validation, but vital to the overall process

Session 5: Monitoring and Benchmarking

- Close linkage of monitoring and benchmarking
- Effective monitoring/benchmarking requires:
 - Continuous assessment of borrower characteristics in development sample versus current portfolio
 - Trend analysis of various performance metrics
 - Comparison against alternative models
 - Application of a variety of quantitative and statistical tools

Panel Discussion

- Key validation questions
- Reasons for validation
 - Transparency and the role of markets
- Special thanks to:
 - Sean Keenan
 - Partha Sen
 - Larry Cordell
 - Kesav Kesavan

Comptroller's Remarks

- Validation is part of sound business practice for banks and other model users
- Bank supervisors emphasize validation because it is central to their statutory responsibilities
- The OCC integrates review of models and validation into the normal supervisory process
- Incentives of banks and regulators often are aligned, but sometimes differ

Session 6: Validation as a Control Function Under Basel II

- Validation is a process, not an event
- Consider validation strategies early
 - Build validation into the development process
- Validation should be set in the context of other controls around an IRB system
- Need for new tools and data



Comptroller of the Currency
Administrator of National Banks

Validation of Credit Rating and Scoring Models

<http://www.occ.gov/vcrsm.htm>