

# Model Risk Governance Services<sup>SM</sup>

Meet regulatory requirements with an independent in-depth review

## Regulatory guidance

Models play an important role in data analysis. Banks use models to influence business decisions, identify risks, assess adequacy of capital and manage client assets. However, there are risks when developing and using these models. If a model is used incorrectly or produces inaccurate outputs, you may face the consequences of poor strategic decision-making, financial loss and/or reputational damage.

To help institutions avoid these consequences, the Federal Reserve Board and the Office of the Comptroller of the Currency (OCC) published the Supervisory Guidance on Model Risk Management OCC Bulletin 2011-12. This guidance ensures sound practices in model development, implementation, use, validation, governance and controls. Working with Experian can provide an objective, knowledgeable and comprehensive view of model risk.

# A strategic approach

#### Business review and audit preparation

Our business consultants have tenured regulatory experience and validated best practices to provide our clients with an independent, third-party review of their model risk management practices. We help organizations with audit preparation for compliance with OCC bulletins 2000-16 and 2011-12.

To begin, we conduct a thorough review of client risk exposures, business activities, and the complexity and extent of model use, including model validation, development, implementation and use in decisioning.

### Model risk validation

Our analytical consulting and modeling teams provide strategic direction on all required tests to meet model risk governance across credit risk, econometric and pricing models.



# What is expected of financial institutions for compliance?

#### **Policies**

All financial institutions that use models in their decisioning processes must ensure that their internal policies and procedures are consistent with the guidance outlined by the OCC regulations.

#### Validation requirements

The OCC requires that financial institutions perform ongoing model validations at least once a year, include a critical review by an independent party and produce proper model documentation.

#### Risk model assessment

Banks need to evaluate the model's conceptual soundness, confirm the model is being used and performing as intended, and compare model outputs with actual outcomes.

#### Managing model risk

Model risk can be reduced through vigorous model validation procedures. Strong documentation of model development and validations allow parties unfamiliar with a model to understand how it operates, as well as its limitations and key assumptions.

We combine our modeling expertise, data and regulatory understanding to provide four key model governance analytical services for:

- Back testing
- Benchmarking
- Sensitivity analysis
- Stress testing

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## Back-testing and benchmarking

According to OCC Bulletin 2000-16, "At the time a model begins to produce outputs, model developers and validators should compare its results against those of comparable models, market prices, or other benchmarks." We help conduct multiple tests of your models to validate performance and accuracy. During this analysis, we produce statistical metrics to assess model performance in relation to previous years' performance and an industry benchmark model.

### Sensitivity analysis and stress testing

By nature, all models have some degree of uncertainty because they're built from statistical, economic, financial, or mathematical theories and techniques. But what's important is the organization's ability to understand and account for that uncertainty — regardless of magnitude — and verify that the model is robust and stable. We help evaluate the impact of changes in inputs and parameter values on the model's ability to rank-order and ensure it falls within expected ranges for model stability. We also conduct a series of characteristic-level stress tests on the model. These determine the sensitivity of the model's performance to small changes in expected input values, as well as sensitivity to more extreme changes, such as changes in economically based conditions that may cause the model to become unstable or inaccurate.



Key aspects of an effective model risk management framework:

- Robust model development, implementation and use
- Effective model validation
- Sound governance, policies and controls

## Gap analysis and action plan

Once we have an in-depth understanding of the business, we create a comprehensive gap analysis report and best-practice recommendations. The gap analysis report will identify discrepancies between current actions and regulatory requirements, such as model documentation and specifications, implementation standards and protocols, consistency of model assumptions with utilizations, and value and usage of monitoring reports. The gap analysis is followed by an action plan, or blueprint report. The blueprint report prioritizes actions for bridging gaps for resolution within a certain time frame and with available resources in mind.

Our Experian Advisory Services is a credentialed consultancy dedicated to creating measurable and sustainable value for organizations worldwide in financial services, banking, mortgage, automotive finance, telecommunications and utilities, microfinance, retail credit and debt collections. We specialize in analytics-based decision strategies, data-driven products and services, regulatory compliance and fraud risk management across acquisitions, customer management, collections and overall portfolio management.

Our team of modelers and analytical consultants have extensive experience in building advanced scoring products and services that is unsurpassed in today's marketplace. As one of the leading modeling companies in the world, we use our unmatched depth and range of modeling experience to help top card issuers in the United States and have delivered more than 1,500 custom scorecards worldwide.

Want to learn more about Model Risk Governance Services<sup>SM</sup>? Contact your local Experian sales representative or call 1 888 727 8330