

Model Risk Management



SAS ranked as a category leader in the Chartis RiskTech Quadrant® for Model Risk Management Solutions 2021, recognizing the software's "completeness of offering" and "market-share potential."

SAS has been the Leader in this assessment since 2014.

The Issue

Good model risk governance is essential for all financial institutions. For example, banks exposed to accounting credit impairment reporting (IFRS 9/CECL), evolving stress testing programs that affect capital planning and new regulatory requirements such as Solvency II and Basel III and IV all require comprehensive model validation. Effective model risk management is also essential to gaining shareholder confidence and complying with regulatory specifications of the European Banking Authority, the US Federal Reserve and the UK's Prudential Regulation Authority's (PRA) 2022, per its consultation paper on model risk management principles (CP6/22).

Governance is particularly vital for machine learning (ML) models, which can predict more accurately in some use cases but also develop unfair biases that can impact the institution or its clients. ML models need more MRM care – from frequent performance monitoring, constant data review and benchmarking, and better contextual model inventory understanding to well-thought-out, action-ready contingency plans.

More than ever, you need clear oversight of your organization's model risk life cycle so you can report to executive management and regulators with absolute accuracy on model risks.

The Challenge

Increased model risk. As models grow more complex (for example, by incorporating ML), banks take on greater model risk. SAS® helps you understand and govern complexity and risk.

Inability to enforce best practices enterprisewide. With a fragmented model governance approach, there's often little integration with siloed model development ecosystems. SAS addresses this by moving you from a limited view of model risk across the enterprise to a comprehensive view.

No integrated model information system. To comply with regulations, banks need reliable, integrated model risk management practices. SAS ensures that all risk categories related to models are identified, monitored and controlled.

Cost and resource constraints that hinder delivery of high-quality model documentation. This documentation is critical to properly controlling model development, testing, implementation, use and validation. SAS offers a solution that enables a single source of model documentation, allowing you to review models by model lineage, version, business line, model owner or customized factors.

Our Approach

To fully understand and control model risk, banks need a fully integrated model risk life cycle for managing, documenting, validating and auditing models to support internal decision making processes. We approach the problem by providing software and services to help you:

- **Validate models.** Independently review and validate all models to support existing supervisory guidance and business requirements. For example, the Comprehensive Capital Analysis and Review functionality recommends that banks maintain an inventory of all models used in the capital process that produce projections or estimates on revenue or loss projections.
- **Organize models.** Design a model candidate assessment, a complete model inventory management module and an end-to-end model validation process.
- **Set policy and documentation protocols.** Perform model-related issue tracking and enable thorough documentation and policy management for effective challenge and remediation plans.
- **Easily share information.** Construct and disseminate reports with bundled tools for effective, top-down model risk reporting.

The SAS® Difference

With SAS, you can establish end-to-end governance of your entire model risk management life cycle, from risk identification to risk assessment. Use it to:

- **Manage the entire life cycle.** SAS provides complete document and workflow management, regardless of the model type, source or technology used to develop models.
- **Automate performance monitoring.** Better understand how well models are performing by automating monitoring via threshold alerts and findings.
- **Apply governance to ML and AI in models.** Intelligent automation saves skilled modelers and validators time when creating documents that govern AI and ML.
- **Capture model usage data systematically.** Systematically capture the execution of models in any environment and enable regulators to fully understand how models are being used.
- **Operate a repeatable, reliable and auditable process.** SAS makes it easy to track reviews, document assumptions, classify models and monitor performance.
- **Create a comprehensive, flexible workflow.** Streamline processes for model limitation scoring, validation results, criticality ratings and modeling of interdependent relationships.

SAS ranked No. 2 overall in the Chartis RiskTech 100 and was the category winner in:



- Artificial Intelligence for Banking
- Balance Sheet Risk Management
- Behavioral Modeling
- Enterprise Stress Testing
- IFRS 9
- Model Risk Management
- Risk and Finance Integration

For more information, please visit [SAS Model Risk Management](#).

