



SAS® OpRisk Global Data

A comprehensive database of operational loss information

Overview

Loss events are seldom random. They generally arise from failures of control and involve multiple contributory factors. With the benefit of hindsight, it's easy to see that many of these risk factors are chronic or recurrent, and most are common across financial institutions of various sizes and types.

What if you could reliably transform that hindsight into foresight? With a stringent system in place to track loss events and collect data about all those contributory factors – internal and external – a financial services institution could much more accurately predict the probability and impact of potential future loss events.

An institution's own internal loss data provides the most relevant information to use for analyzing operational risk, but internal data is generally insufficient for most modeling and statistical analysis purposes. Since operational risk is driven primarily by high-severity events, which are rare, it would take years or decades to collect enough data to build an effective and reliable predictive model.

External databases offer the larger sample size required for meaningful modeling and statistical analysis. However, there is an industrywide shortage of available or suitable event/loss data (especially for larger and unexpected loss events), large statistical samples and statistically proven cause-and-effect relationships.



Challenges

- **Inadequate sample size.** An institution's internal data is generally insufficient for most modeling and statistical analysis purposes.
- **Shortage of suitable event/loss data.** There is a shortage of available or relevant event/loss data, especially for larger and unexpected loss events.
- **Lack of standardization.** There's no standard method for scaling data from external databases into internal ones; almost every institution uses its own algorithms.
- **Insufficient external databases.** Most external data pools only capture losses above a certain threshold, contain only 10 data fields and generally cannot be directly integrated into an internal loss database.

While regulators welcome the inclusion of external loss data to broaden the statistical knowledge base, most external loss databases are in their infancy and come up short. SAS® OpRisk Global Data changes all that.

How SAS® Can Help

SAS OpRisk Global Data is the world's largest, most comprehensive and most accurate repository of information on publicly reported operational losses in excess of US\$100,000. The solution documents more than 22,000 events across all industries worldwide and provides up to 50 highly relevant fields of descriptive information for each loss event.

The database draws on the resources of several leading commercial online information providers and accesses thousands of publications. A team of seasoned SAS operational risk research analysts maintains the database in accordance with strict data quality standards and reviews it periodically to ensure accuracy and completeness. Updated versions are released quarterly.

SAS OpRisk Global Data provides the broadest possible statistical sample from which to model risk factors, probabilities and costs.

Logical, standard data structure

SAS OpRisk Global Data identifies and categorizes loss events in accordance with Basel II Event and Effect classification standards. Loss data is segregated into seven distinct data sets, distinguishing between final operational loss events and soft losses (preliminary losses, estimates) to facilitate more accurate modeling. Losses in financial services firms are assigned to generic business and sub-business lines – also in conformity with Basel II standards.

With this logical, yet flexible database structure, users can view the number of loss events and their average dollar loss grouped by various categories of risk exposures by company-defined organization areas – and then view the same information by regulatory generic organization areas per Basel II.

Scaled for your organization

Empirical evidence suggests that loss magnitude is to some extent a function of firm size. That is, if the same loss event occurred simultaneously at two firms of different sizes, the larger firm would experience the larger loss, all else being equal. As a result, external data must be scaled to be proportional to the size of the firm being analyzed.

SAS OpRisk Global Data provides five types of data on which scaling can be performed – revenues, assets, net income, number of employees and shareholder equity – and a scaling coefficient determined by regression analysis. This powerful scaling algorithm enables you to tailor external data to exactly suit your organization's size and analysis requirements.

By integrating SAS OpRisk Global Data into your risk analysis processes, you gain the broadest possible statistical sample on which to gauge the probability and potential cost of loss events. This intelligence provides a foundation for optimizing capital allocation, developing the most effective controls, satisfying regulatory reporting requirements and assessing performance in preventing or mitigating operational risk.

Part of an end-to-end solution

SAS OpRisk Global Data is one component in a complete operational risk management solution. Built on the industry-leading SAS Business Analytics Framework – which encompasses award-winning data integration, analytics and reporting – the SAS OpRisk Management solution includes three components designed specifically for managing operational risk:

- **SAS OpRisk Monitor**, a Web-based application for collecting, tracking and reporting risk intelligence.
- **SAS OpRisk VaR**, a sophisticated, yet user-friendly, analytical model for calculating value-at-risk (VaR).
- **SAS OpRisk Global Data**, a comprehensive database of external loss data, documenting more than 22,000 publicly reported operational loss events.

About SAS

SAS is the leader in business analytics software and services, and the largest independent vendor in the business intelligence market. Through innovative solutions delivered within an integrated framework, SAS helps customers at more than 45,000 sites improve performance and deliver value by making better decisions faster. Since 1976 SAS has been giving customers around the world THE POWER TO KNOW®.



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