RiskCalc™ Banks 4.0

Moody's Analytics RiskCalc Banks 4.0 Model generates a forward-looking probability of default (PD) or EDF™ (Expected Default Frequency) credit measure, loss given default (LGD), and expected loss (EL) for the banking sector across geographies and regulatory environments. It combines systematic credit measures with financial statement data, equity market information, static and forward-looking dynamic drivers of recovery, and qualitative factors to produce a highly predictive measurement of standalone credit risk. RiskCalc models are built from the world's largest private firm database and world-class modeling and software technology. They enable greater accuracy in default and recovery modeling, improved consistency using a common framework in the organization, and increased efficiency in credit risk management practices.

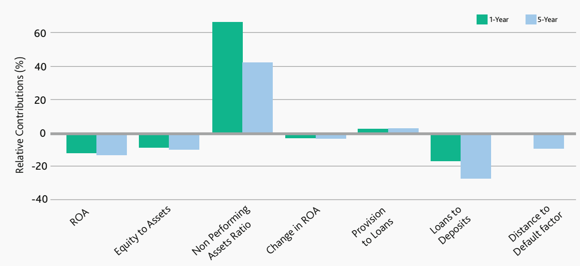
THE CHALLENGE: A PREDICTIVE MEASURE OF FUNDAMENTAL CREDIT RISK FOR PRIVATE FIRMS

Developing consistent default models for global banking portfolios is a significant challenge due to data limitations and constraints on internal resources. The RiskCalc Banks 4.0 Model provides a specific measure of credit risk for individual banks globally. This measure can be used to assess the risk of direct exposures as well as counterparty risk associated with business transactions.

Built with an Extensive Dataset

The RiskCalc Banks 4.0 Model was developed and validated using datasets covering over 90 countries and close to 200 defaults. With close to 33,000 financial statements, the datasets include financial statement and default data from 1988 to 2012. By combining all of this data, the model evaluates commonalities, links default risk to a set of financial ratios, and incorporates portfolio composition by evaluating the risk in bank assets and losses.

This graph shows the relative contributions of the financial ratios used to calculate the EDF credit measures for a privately held firm.



	1-Year	5-Year
Expected Default Frequency (EDF)	0.67%	1.72%
Bond Default Rate Mapping	Ba1.edf	Baa1.edf
Percentile	81.47%	55.11%
Organizational Rating	Yellow	

Accuracy, Efficiency, and Consistency

Moody's Analytics RiskCalc solution's robust analytics and broad coverage have made it the model of choice for assessing private firms among the world's leading institutions. It is considered the preferred model for:

- » Efficiently screening obligors at origination and underwriting
- » Ongoing monitoring and early detection of credit deterioration
- » Accurate and consistent pricing based on counterparty risk levels
- » Capital allocation based on forward-looking recovery values
- » Calculating loss provisions, loan pricing and investment analysis
- » Use as a primary model or for benchmarking against an internal model

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Fundamental Data from Financial Statements

RiskCalc Banks 4.0 Model utilizes financial ratio variables based on their ability to predict corporate defaults. The model transforms these variables to accurately predict default probabilities.

- **Profitability:** ROA (Net Income to Assets)
- **Asset Quality:** Non-Performing Assets to Equity and Loan Loss Reserves, and Loan Loss Provision to Net Loans
- **Liquidity:** Net Loans to Deposits
- **Leverage:** Equity to Assets
- **Growth:** Change in ROA (Net Income to Assets)
- **Portfolio Risk:** Distance to Default Factor (five-year model only)

RiskCalc Features

- **Incorporates an economic capital framework** based on portfolio theory by incorporating a measure of volatility of a bank's losses relative to the bank's loss-absorbing capital
- **Country and regional Credit Cycle Adjustments** based on forward-looking equity market information
- **Ratio diagnostics** provide a valuable, intuitive understanding of a bank, its risk drivers, and your exposure risk
- **Capture credit-cycle changes** from month to month in the period between two financial statements producing EDF, LGD, and EL credit measures from one through five years
- **View time-series charting** on best and worst-case historical trends
- **Centralized portal** stores and manages counterparty credit risk data and analytics
- **Ongoing client support** from Moody's Analytics Client Service and Support team, 24 hours a day, five days a week
- **Integrates with the RiskCalc Bank Scorecard,** a qualitative overlay that offers a comprehensive framework for bank analysis. The overlay helps drive comparability to some of the factors considered in agency ratings. The categories include bank default risk, operating environment, external support, size of the bank and sovereign rating
- **Common systematic language** maps EDF and EL metrics to Moody's Investors Service ratings or your firm's ratings
- **Convenient accessibility** via the RiskCalc Plus website, Excel add-in for customized reporting, XML for system-to-system integration, and Moody's Analytics credit scoring platforms
- **Transparent modeling** developed and validated against CRD data and backed by transparent model documentation

Global Coverage Using World-Class Default & Recovery Models

- **Americas**: United States, Canada, Mexico, US Insurance, US Banks, and North America Large Firm
- **Europe, Middle East, and Africa**: Austria, France, Netherlands, Nordic (Denmark, Norway, Sweden, Finland), Portugal, Spain, United Kingdom, Germany, Belgium, Italy, South Africa, Switzerland, Russia, Europe Large Firm, Emerging Markets, and Banks
- **Asia Pacific**: Japan, Korea, Australia, Singapore, China, Emerging Markets, and Banks

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