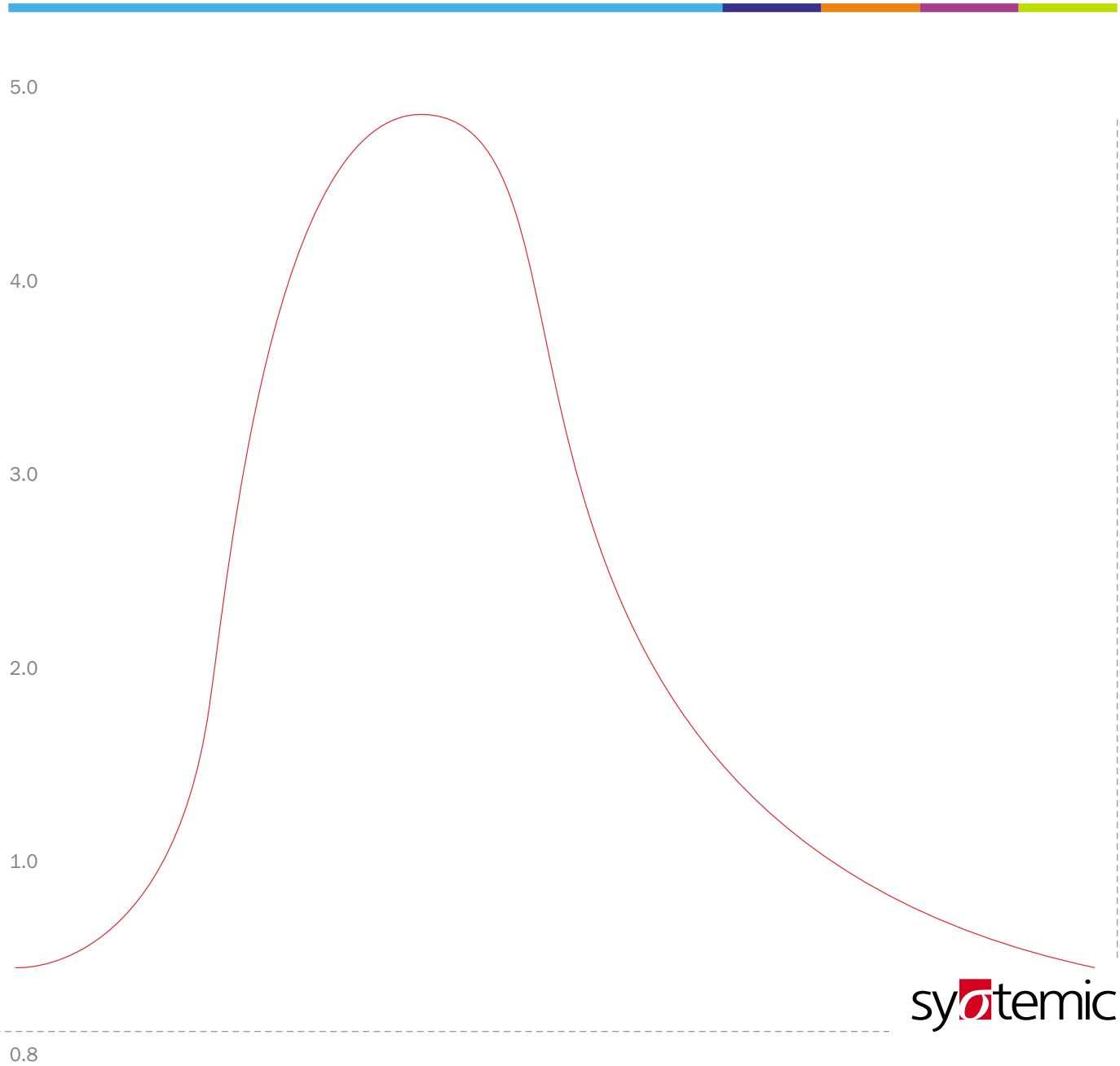


Obligor Risk **Rating**



Obligor Risk Rating

Risk Ratings are quantitative measures of risk that allow to meaningfully differentiate risk among different firms or exposures. They are used today by all modern banks, asset management firms and other financial institutions who undertake credit exposures. In fact, they form a vital component in the credit approval process, in the pricing of each credit exposure and the calculation of capital adequacy.

In many cases, ratings obtained from external, independent agencies may be used. However, in many market segments these are not available creating a need for internal rating models.

The RV Rating solution

Whether for regulatory or internal purposes, **RV Rating**[®] is designed to analyze any firm in order to assign to it a risk rating reflecting its creditworthiness and a probability of default based on financial information, qualitative assessments, and macro-economic indicators. It applies the best practices and latest approaches that are used today by the industry's leading practitioners and is fully compliant with the standards set by the Basel Committee.

Furthermore, it provides a framework for the maintenance, analysis and reporting of balance sheet and income statement items including automatic calculation of financial ratios, Cash Flow analysis, and assistance in generating reliable projections for the future.

Integrated Portfolio Management

RV Rating[®] is based on the **RiskValue Platform**[®], which allows it to be fully integrated with a broader family of solutions addressing other areas in the risk management spectrum, including Portfolio Credit Risk, Market Risk, and others.

Key Features

- Estimates Risk Ratings that meaningfully differentiate risk among different obligors and derives their Default Probabilities; **Screen 1**
- Handles large, listed corporations down to the smallest personal firms, including those without financial statement disclosure requirements;
- Provides tools for self-validating the model's accuracy
- Includes Loss-Given-Default (LGD) calculator based on Basel II guidelines;
- Provides Fair credit spread and Economic Value Added calculator for different exposure types;
- Allows Customized risk reports analyzing obligor data and creditworthiness measures;
- Maintains detailed Balance Sheet and Income statement data. Authorized users may easily create different structures for different types of firms;
- Provides detailed Cash Flow & Financial Ratio analysis, and tools for forecasting future Financial Statements;
- Keeps detailed history of changes in risk assessments;
- Offers robust security features, including detailed Access control, Audit trails, and Dual control.

Analyze consistently and objectively your Obligor's Risk Profile

The system performs an in-depth analysis of all obligors' risk profile, allowing answering to questions such as:

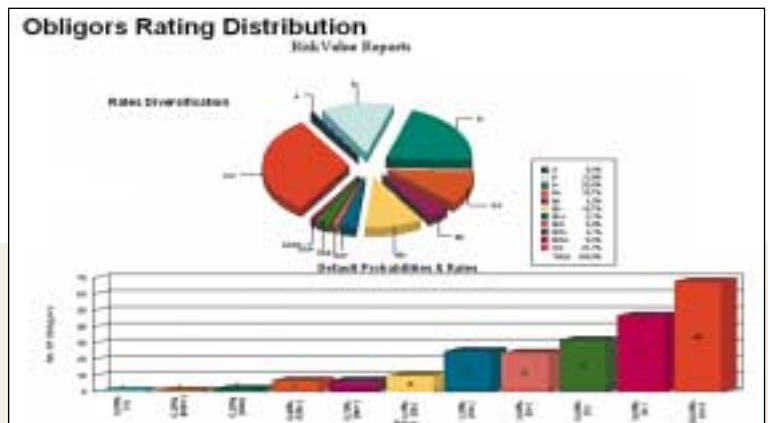
- How are ratings distributed among different segments of my population? (**Screen 2**)
- What migrations have occurred from one grade to another during the past year?
- Which are the main sectors in a rating grade?
- What quality of borrowers are my Profit Centers exposed to?
- Are there any patterns in the analysts' qualitative assessments? Are they overly optimistic/ pessimistic?

Screen 1

Obligor Evaluation Summary		
Activity Sector	Description	Percentage
National Code14	Telecommunications	100,00%
Rating Score: b-	Default Probability (PD)	9,00%
Financial Rating Score: b	Financial PD :	6,00%
Submitted by		
Approved by		

Risk Value Reports

Screen 2



Use Powerful Risk Drivers to predict Default

In order to derive the best of all worlds in accurately predicting default, **RV Rating**® combines the most efficient techniques and risk drivers used today by the most successful practitioners. It is therefore a *hybrid* model.

- **Financial statements:** It is widely acknowledged that several financial ratios such as Leverage and Profitability may embed some information leading to a potential default. However, ratios suffer from several weaknesses: (a) financial statements contain only historic data; and (b) they are often unreliable particularly in the SME sector. **RV Rating**® turns these into strengths by allowing building *projected* financials (i.e. forward looking) and by allowing analysts to embed their own assessments on doubtful items.
- **Cash Flow based Distance-to-Default:** This extremely powerful indicator measures the level of the firm's projected liquid funds, normalized by the cash flow's volatility. To do so, it extracts valuable information from numerous individual indicators such as liquid Assets, unused credit lines, projected turnover growth, cost-on-sales ratio, and many others. (Screen 3)
- As it does not rely on equity prices, it offers the significant advantage over the analogous "Structure based" definition used by standard Merton-like models, of being applicable to both listed *and* non-listed firms. In fact, by leveraging on key financial information and sector average data, this ratio is even applicable to firms without complete financials.
- **Macroeconomic information:** These are used by **RV Rating**® to properly capture the state of the economic cycle, a critical and complex factor which is well known to trigger correlated defaults. Furthermore, a simulation in their values allows to stress test any credit portfolio.
- **Qualitative information:** The model's Default prediction capacity is further enhanced, particularly in the case of small enterprises with limited financials, by the inclusion of vital Qualitative information. Therefore, each evaluation requires an in depth knowledge of the firm's strategy, management, operations, credit history and other information which is often not disclosed. As a

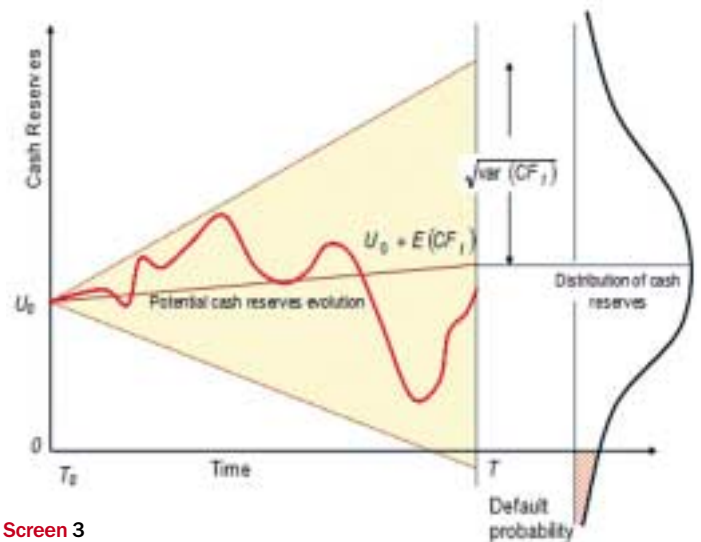
result, the rating obtained is actually an "internal" rating, i.e. it reflects the internal knowledge/ understanding of the bank itself towards an obligor.

Generate Forward looking assessments

RV Rating® also incorporates forward looking elements to its evaluations. To this effect, it allows generating projected financial statements, based on forecasted sales growth, profit margin, collection & payment period and many other indicators. The user is assisted in this process, as the system proposes original values for these forecasted indicators based on recent historic information, which may of course be altered as appropriate. In this context, all qualitative assessments may also be forward looking. (Screen 4)

Use an Advanced Default prediction algorithm

The default prediction algorithm used by **RV Rating**® is based on a simplified "Neural Network" approach, which is preferred over more traditional approaches mainly because it is proven to handle much



Screen 3

Screen 4

Create new financial statement

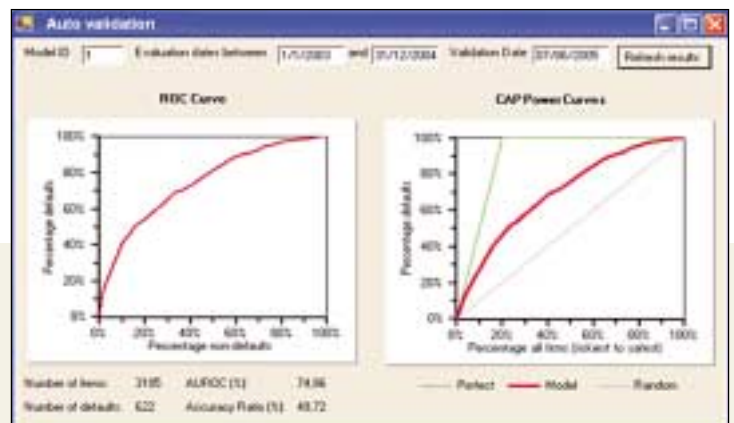
Statement date: 31/12/2003 Type of financial statement: Annual report Projection

Period duration (in months): 12

Projection parameters

Annual sales growth (%)	10.47	Minimum cash level	356.887
Gross profit margin (%)	15.82	Capital infusion	0
Collection period (days)	93	New long term debt	0
Inventory duration (days)	10	New intangible assets	0
Payment period (days)	100	Under construction	0
Reinvestment rate (%)	100.00	New tangible assets	0
		Extraordinary items	0
Weighted interest rate (%)	20.68	Amortization rate (%)	20.00
Tax Rate (%)	35.61	Depreciation rate (%)	0.00

Screen 5



better the highly nonlinear patterns of the risk drivers, and because it presents a useful “learning” feature (i.e. Back Propagation algorithm) which allows a continuous improvement in its prediction power as the credit environment evolves.

Validate your model continuously

In order to maximize the model’s predictive power in a rapidly changing risk environment, a periodic calibration of its original parameters is recommended. Simply by feeding the system at regular time intervals with the default status of obligors which had been rated in the past, the system will constantly monitor its own performance in predicting defaults, and indicate when a calibration of its risk parameters might be recommended. Rigorous out-of-sample statistical processes are also applied for validating a set of calibrated risk parameters. (Screen 5)

Price your Exposures based on their risk profile

As also stipulated by the latest Basel II recommendations, all risk components such as Default probability (PD), and Loss given default (LGD) should be an integral part of your risk and business management culture in broader areas such as strategy, profitability and performance measurement.

RV Rating® provides a Fair Spread & Economic Value Added calculator allowing you to make sure that the return obtained on any transaction adequately compensates for the risks incurred. (Screen 6)

To measure the Economic Value Added (EVA) to the Bank’s shareholders which is generated by a transaction, many factors are taken under account by the calculator, such as:

- The transaction’s expected credit loss
- Capital required to cover unexpected credit losses
- Capital to cover Operational risks
- Cost of above Capital based on required Return on Equity
- Account & Product management expenses
- Cost of funds



➤

For more information
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Screen 6



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