Note

RC-Rating Scenario System

Risk Control's RC-Rating Scenario System is a powerful business tool for analysing the impacts of different strategies on the agency ratings of Multilateral Lending Institutions (MLIs) or Supranationals. The methodologies of the three main ratings agencies, Moody's, Fitch and Standard & Poor's, combine quantitative calculations of solvency, liquidity and funding status with a series of adjustments based on precise questions. These amount to complex scorecards with numerous inputs.

RC-Rating Scenario System provides a transparent and intuitive framework for performing scorecard analysis for the three major rating agencies. Inputs are a combination of granular exposures data, financial variables and scenarios. Outputs are the final rating and all the intermediate results and findings that contribute to the final score. A rich set of scenarios are supported, including changes in individual exposures or lines of business, as well as fluctuations in credit quality of counterparties. In addition to scenarios imported with the data inputs, scenarios may be constructed using the user interface.

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RC-Rating Scenario System Features

- Agency approaches carefully represented
- Full support for calculation of quantitative elements in agency methodologies
- Fully transparent approach to judgmental elements of agency scorecards through questions
- Extremely wide set of scenarios available via flexible scripting language
- Stable, server-based data storage
- Easy upload of new data

- Preparation of workbooks in rating agency formats
- Swift evaluation of scenarios with full breakdown of intermediate results
- Integration with Risk Control's RC-Dashboard and Database Tool application
- API for integration with other client systems
- Configurable user roles and privileges
- Convenient interface for managing users

Using the RC-Rating Scenario System, analysts in risk, finance or strategy functions can implement and study key scenarios for the future development of their organisation. Notably:

- Strategy analysts can evaluate the scope to implement different business initiatives.
- **Risk analysts** can examine the robustness of the organisation's balance sheet and liquidity in the face of different economic shocks affecting counterparty credit quality.
- Analysts preparing data for rating agency evaluations can use the application to create the workbook required by the agencies.

Data other than ratings scenarios can also be displayed through the dashboard. In this way, the system provides users with a means to organise all of the data relevant to their ratings calculations in a single convenient location. For example, data may include internal exposure data and accounts data, as well as external data from the rating agencies on the ratings components of different MLIs.

All four components of RC-Rating Scenario System are JEE web-applications, configured to work together to deliver a highly scalable and secure set of functionalities.

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		Public sector loans / purpose related exposure	45.5%	45.4%	45.5%
		Private sector loans / purpose related exposure	45.2%	45.4%	45.5%
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		Arrears ratio	22.2%	22.0%	22.0%
		RAC ratio	7.2%	72.9%	11.0%
		6-month liquidity ratio	300.7%	453.2%	514.1%
		12 month liquidity ratio	217.2%	296.2%	241.4%
		Static funding gap	14,690,658,780	9,506,341,220	12,100,000,000
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		Shareholder relationships	Very strong	Very strong	Very strong
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		Policy importance	Adequate	Adequate	Adegosite
	Governance/Management	initial governance/management assessment	Adequate	Adequate	Adequate
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Technical Information

The RC-Rating Scenario System comprises four components:

1. RC-Rating Engine

RC-Rating Engine is a backend REST server that offers calculations of ratings (and of all intermediate outputs) via an API. These calculations are accessed via an API by other components (and indeed may be provided to other client systems if the component is licensed individually).

2. RC-Rating Manager RC-Rating Manager is an Angular JS interface through which users upload data, generate scenarios, view and export results.

3. RC-Rating Dashboard RC-Rating Dashboard is a Java application that exhibits highly flexible and extensible reports, including output from RC-Rating Engine.

4. RC-User Management Application User management is provided by a fourth component, the RC-User Management Application (UMA) which authenticates and authorises users and interacts with LDAP services such as Active Directory.

The software is written in Java and uses J2SE 1.9. It is compatible with different operating systems and can be run with different application servers or servlet containers, employing a variety of database software. It can be installed under Linux, Unix or Windows operating systems, can use Tomcat, BEA Weblogic, IBM Websphere and others and can store data in any one of Postgres, Oracle, SQL Server or other databases.

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