

## Ratings Migration, Default and Recovery Rates

### Improving the Assessment for Corporations, Their Securities, Structured Finance Issues and Sovereigns

S&P Global Market Intelligence provides credit risk and investment professionals with important ways to help them:

- Evaluate probabilities of default
  - Track credits in transition
  - Analyze historical transitions, defaults and recoveries
- 

### Defaults in Structured Finance Presented in Five Key Sectors:

- Asset-backed securities
- Collateralized debt obligations
- Commercial mortgage-backed securities
- Residential mortgage-backed securities
- Single-issue synthetics

Get the full picture of your credit risk exposure with access to authoritative default, transition and recovery data and powerful analytic tools. Efficiently evaluate probabilities of default based on S&P Global Ratings default and ratings migration data covering more than 14,000 companies, 155,000 securities, 198,000 structured finance issues and more than 140 sovereign ratings across the globe. This robust analytic tool helps you evaluate future default and ratings migration scenarios, and validate internal rating systems used for credit risk management purposes.

CreditPro®, hosted on the Credit Analytics platform, provides recovery analytics, trends, and performance data based on credit loss information dating from 1981 and compiled on close to \$932 billion in defaulted principal from U.S. companies.

### Step 1: Analyzing Default

With CreditPro you can access a dynamic analytic tool enabling you to perform specific sampling and to examine a vast collection of default and ratings history data, including:

#### **MARGINAL DEFAULT RATES**

Analyze default rates in yearly, quarterly or monthly intervals for a specific group of companies or securities.

#### **CUMULATIVE DEFAULT RATES**

Analyze cumulative default rates for a particular time period for a selected Standard & Poor's rating category. Measure the default exposure by running reports based on issuers' total debt outstanding.

#### **COMPANY COUNTS**

Review the number of obligors in each Standard & Poor's rating category on the first day of each year. Results for each of these tables are shown as counts or percentages for an individual static pool or as a percentage for a weighted average of a selected group of pools.

#### **DEFAULT CORRELATION**

Analyze the historical default probability of an entity, issue or securitized issue, by ratings category, within specified parameters. Examine default correlation as it relates to the default likelihood of one company or securitized issue that is affected by another because of similar industry-specific events or macroeconomic turbulence.

Create thousands of client-defined default and default correlation reports that span industries, geographic regions, rating categories, rating histories and time frames, all easily downloaded into spreadsheet format with functionality enabling you to drill down to an individual issuer's ratings history.

## Step 2: Tracking Credits in Transition

Monitor and compare the ratings behavior of companies, sovereigns or securitized issues over specified time periods with an enhanced ability to refine and adjust your own credit risk assessments based on the comparable historical ratings movements of similarly rated obligors or issues.

We have developed a series of transition matrices that enable you to track and evaluate ratings changes for issuers or their issues. A transition matrix can, for example, display the percentage of issuers, issues or debt amount in each rating category that have either maintained their rating or migrated to a different rating level. You can select industry sectors or choose from 106 countries and/or 16 geographic regions. Once a transition matrix has been selected, it's possible to drill down into any cell to see the companies behind the numbers and their ratings history.

The screenshot displays the S&P Capital IQ Credit Analytics interface. The top navigation bar includes the S&P Capital IQ logo, the text "Credit Analytics", and user options like "Welcome | Sign Out", "Change Password", and "Help". Below this is a secondary navigation bar with "CREDITPRO", "CREDITMODEL", "CREDIT RISK TRACKER", and "PD MODEL". The main content area is titled "CreditPro®" and has tabs for "Getting Started", "Corporate", "Structured Finance", and "Sovereign". The "Corporate" tab is active, and the "Transition Matrices" section is selected, with sub-links for "Original to last" and "Special".

The "Transition Matrices Report" configuration screen includes the following options:

- Report Type:**  Issuer  Issue
- Calculations based on:**  Number of Issuers (All)  Number of Issuers (with available debt amounts)  Debt Amount
- Frequency:**  Annual  Quarterly  Monthly
- Static Pool:** All
- From:** 1981 (with sub-selects for 1st Quarter and January)
- Horizon:** 1 Year
- To:** 2013 (with sub-selects for 3rd Quarter and July)
- Regions:** All (dropdown menu with options: Asia Pacific, Asia Pacific (Excluding JP, AU, NZ), Australia and New Zealand, Caribbean, Eastern Europe, Emerging Markets)
- Countries:** All (dropdown menu with counts: Argentina - 146, Armenia - 1, Aruba - 2, Australia - 457, Austria - 54, Azerbaijan - 7)
- Industries:** All
- Vintages:** All (dropdown menu with years: 1980, 1981, 1982, 1983, 1984, 1985)
- NR Treatment:**  Included  Excluded  Adjusted
- Display Notches:**  Yes  No
- Display Base:**  Percent  Count

Buttons at the bottom right include "CLEAR", "SAVE QUERY", and "CALCULATE". A footnote at the bottom states: "(1)=Please be aware in some instances the Total Debt Amounts are stale dated due to insufficient data points".

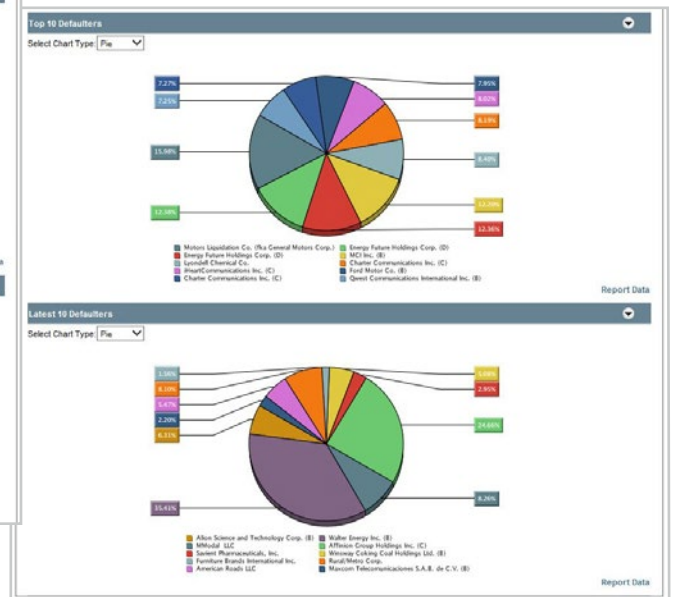
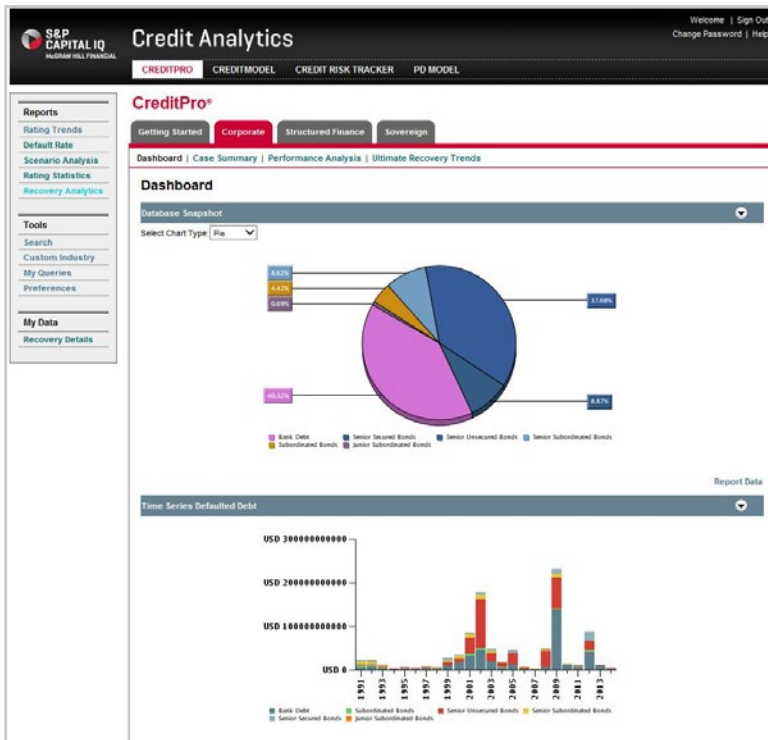
CreditPro provides reports that show the percentage of issuers or issues that defaulted or the ratings that were upgraded or downgraded.

## Step 3: Recovering Losses

CreditPro captures credit loss information on more than 4,500 defaulted bank loans and high yield bonds, as well as other debt instruments totaling more than \$932 billion in defaulted principal. The database features more than 1,000 public and private U.S. companies that have defaulted since 1987. The application allows the user to analyze the latest and largest defaults and ultimate recovery trends, and view performance and case summary information both for the obligor and the various underlying debt instruments.

Use CreditPro and its benchmarks for loss given default to to:

- Build recovery criteria
- Supplement internal loss data
- Benchmark internal loss model results
- Guide lending decisions and pricing
- Monitor portfolios
- Develop internal facility ratings



### MEASURES TRUE ECONOMIC LOSS AND RECOVERY USING THREE DISTINCT METHODS:

1. Trading prices of pre-petition instruments at the time of emergence
2. A review of the earliest available trading prices of the instruments received in a settlement
3. The approximate value of illiquid settlement instruments at the first date that a price can be determined

All recoveries in CreditPro are shown in net present value and in nominal terms. Clients also can calculate recoveries with other applicable discount rates. Ultimate recovery rates include pricing at the time of emergence, settlement or liquidation. In addition, debt cushion calculations, revolver utilization history and ratings history for the issuer and its debt instruments are provided, as are trading prices at the time of default.

## Why Clients Choose S&P Global Market Intelligence for Default and Recovery Information

S&P Global Market Intelligence responds to the needs of credit risk and investment professionals seeking authoritative data and powerful analytic tools to monitor and adjust their risk management efforts. With S&P Global Market Intelligence's CreditPro you can:

### APPLY BEST CREDIT PRACTICES

Using our methodology, clients gain the enhanced ability to evaluate future default and ratings migration scenarios. They can adjust the calibration of their own models, stress test assumptions, and benchmark internal performance on a regular and consistent basis. In addition, they can address any gaps in their own internal ratings data.

### MEET EVOLVING REGULATORY STANDARDS

As financial institutions seek to comply with the internal ratings-based approach of Basel II, they face requirements for validating their rating systems. As such, CreditPro is an important component of our solution, helping clients to validate their probabilities of default and loss given default.

### STAY UP-TO-DATE ON REGIONAL AND SECTOR CREDIT TERMS

With more than 198,000 structured finance securities, CreditPro provides credit risk and investment professionals with a systematic way to evaluate default and recovery information across geographic regions, industries and sectors, including structured finance sectors. Credit analysts can drill down into the database for granular detail and export data or tables for further scrutiny. Also, they can conduct correlation studies to support portfolio analysis and economic capital allocations.

Copyright © 2016 by S&P Global Market Intelligence, a division of S&P Global Inc. All rights reserved.

No content (including ratings, credit-related analyses and data, valuations, model, software or other application or output therefrom) or any part thereof (Content) may be modified, reverse engineered, reproduced or distributed in any form by any means, or stored in a database or retrieval system, without the prior written permission of S&P Global Market Intelligence or its affiliates (collectively, S&P Global). The Content shall not be used for any unlawful or unauthorized purposes. S&P Global and any third-party providers, as well as their directors, officers, shareholders, employees or agents (collectively S&P Global Parties) do not guarantee the accuracy, completeness, timeliness or availability of the Content. S&P Global Parties are not responsible for any errors or omissions (negligent or otherwise), regardless of the cause, for the results obtained from the use of the Content, or for the security or maintenance of any data input by the user. The Content is provided on an "as is" basis. S&P GLOBAL PARTIES DISCLAIM ANY AND ALL EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE, FREEDOM FROM BUGS, SOFTWARE ERRORS OR DEFECTS, THAT THE CONTENT'S FUNCTIONING WILL BE UNINTERRUPTED OR THAT THE CONTENT WILL OPERATE WITH ANY SOFTWARE OR HARDWARE CONFIGURATION. In no event shall S&P Global Parties be liable to any party for any direct, indirect, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees, or losses (including, without limitation, lost income or lost profits and opportunity costs or losses caused by negligence) in connection with any use of the Content even if advised of the possibility of such damages.

Credit-related and other analyses, including ratings, and statements in the Content are statements of opinion as of the date they are expressed and not statements of fact. S&P Global Market Intelligence's opinions, analyses and rating acknowledgment decisions (described below) are not recommendations to purchase, hold, or sell any securities or to make any investment decisions, and do not address the suitability of any security. S&P Global Market Intelligence assumes no obligation to update the Content following publication in any form or format. The Content should not be relied on and is not a substitute for the skill, judgment and experience of the user, its management, employees, advisors and/or clients when making investment and other business decisions. S&P Global Market Intelligence does not act as a fiduciary or an investment advisor except where registered as such. While S&P Global Market Intelligence has obtained information from sources it believes to be reliable, S&P Global Market Intelligence does not perform an audit and undertakes no duty of due diligence or independent verification of any information it receives.

S&P Global keeps certain activities of its divisions separate from each other in order to preserve the independence and objectivity of their respective activities. As a result, certain divisions of S&P Global may have information that is not available to other S&P Global divisions. S&P Global has established policies and procedures to maintain the confidentiality of certain non-public information received in connection with each analytical process.

S&P Global may receive compensation for its ratings and certain analyses, normally from issuers or underwriters of securities or from obligors. S&P Global reserves the right to disseminate its opinions and analyses. S&P Global's public ratings and analyses are made available on its Web sites, [www.standardandpoors.com](http://www.standardandpoors.com) (free of charge), and [www.ratingsdirect.com](http://www.ratingsdirect.com) and [www.global-creditportal.com](http://www.global-creditportal.com) (subscription), and may be distributed through other means, including via S&P Global publications and third-party redistributors. Additional information about our ratings fees is available at [www.standardandpoors.com/usratingsfees](http://www.standardandpoors.com/usratingsfees).

For more information visit:  
[www.spcapitaliq-credit.com](http://www.spcapitaliq-credit.com)  
or contact us at  
[emea-marketing@spglobal.com](mailto:emea-marketing@spglobal.com)

---

### CONTACT US

#### The Americas

+1 212 438 8701

#### Asia-Pacific

+852 2533 3565

#### Europe, Middle East or Africa

+44 (0)20 7176 7176

[spglobal.com/  
marketintelligence](http://spglobal.com/marketintelligence)