

WHITEPAPER

(as published on garp.com)

Author

Michael van Steen

Michael van Steen is a senior director at Moody's Analytics Enterprise Risk Solutions Group. He helps deliver advanced portfolio credit risk, stress testing, correlation and valuation solutions to global banks, asset managers, hedge funds, insurance companies and regulatory organizations. He is the practice lead for origination services in Americas, developing and managing services around stress testing, lending workflows, pricing and limit setting (particularly around origination).

Contact Us

For further information please contact: our customer service team:

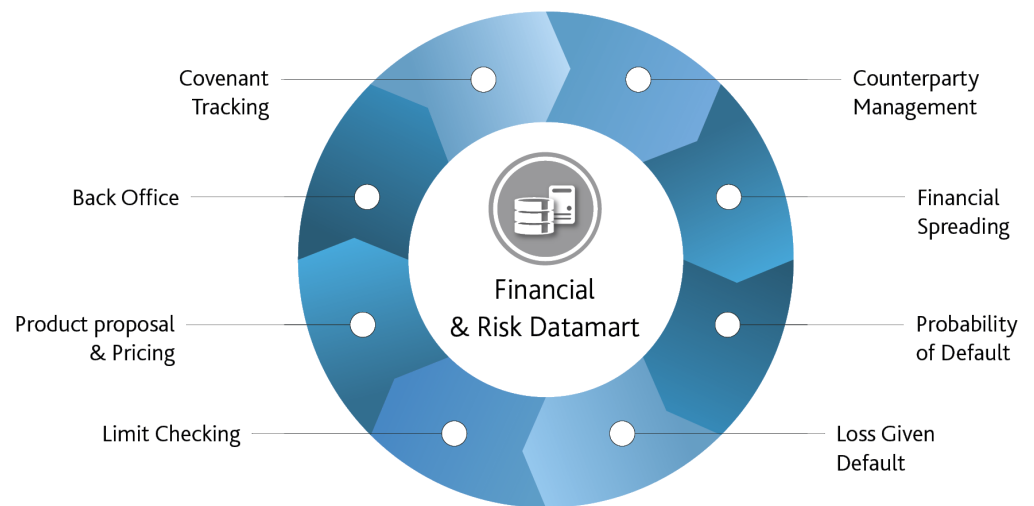
Americas	+1.212.553.1653
Europe	+44.20.7772.5454
Asia-Pacific	+85.2.3551.3077
Japan	+81.3.5408.4100

Credit Origination: An Integrated Approach

Few firms apply consistent risk management, origination and calibration methodologies across portfolios, business lines and regions

In the present economic landscape, risk management at the point of credit origination is not just tied to the spreading of risk data or selecting the correct product proposal and pricing. Effective and comprehensive risk management is a series of steps taken in a continuum that integrates covenant tracking, counterparty management, financial spreading, probability of default, loss given default (LGD), limits checking, product proposals and pricing and back-office activities.

THE BROADER SCOPE OF RISK MANAGEMENT



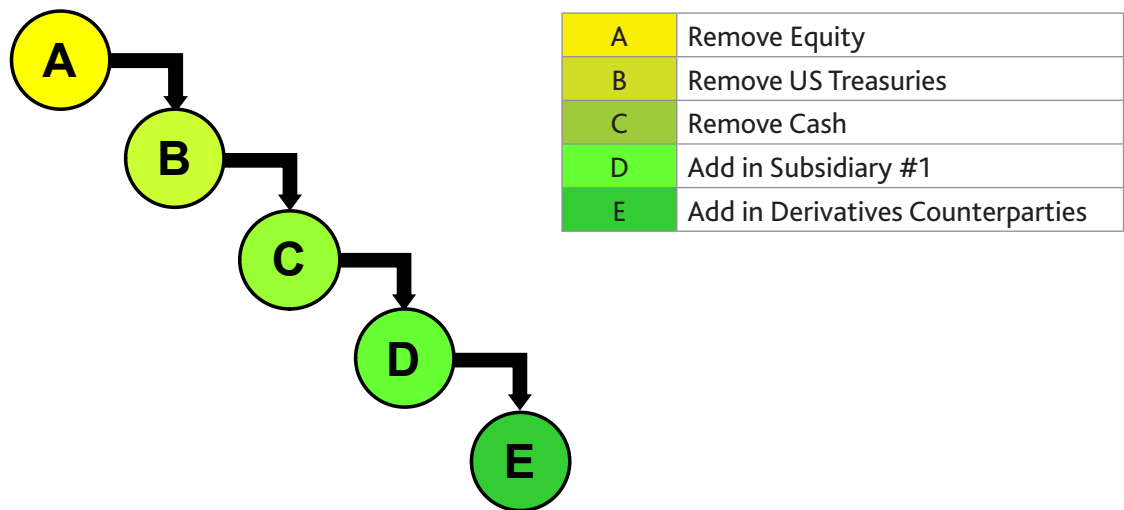
This new, broader scope of risk management includes stress testing; assessing risk appetites; calculating correlations and concentrations at both the portfolio and enterprise level; determining the impact of related parties; ensuring consistent underwriting and pricing methodologies; and, particularly of late, extensive regulatory compliance requirements from the FDIC, FINRA, OCC, SEC, CFTC and SIPC, to name a few.

Very few financial institutions adopt consistent risk management, origination and calibration methodologies across portfolios, business lines, products or regions. Instead, institutions frequently turn to quick fixes, overlays or "silver bullets," particularly at the edges of their businesses, to assess and manage risk or to produce a specific report.

The lack of integration between credit origination processes and firm-wide risk management and portfolio strategies makes it almost impossible to assess accurately the origination and holding of credit risk in a portfolio. This leaves institutions ill-prepared to conduct the detailed level of analysis and stress testing of their portfolios that both internal audit teams and external regulators (as well as the overall competitive environment) increasingly require.

To mitigate inaccurate measurement of risk and potential non-compliance with regulations, institutions are looking for an approach that minimizes the pain of implementing new IT systems and integrating these new systems with their legacy technology systems. The first origination priority, therefore, should be to maintain a single, richly detailed and internally consistent picture of the existing book of business.

A STEP-BY-STEP APPROACH TO ASSEMBLING A PICTURE OF TOTAL CREDIT RISK



For instance, in the accompanying figure, to assess the institution's total credit risk accurately, credit managers need to take a series of steps to make sure that they account for *all* of the risk exposures they are holding. Sequentially adding credit exposures (such as subsidiaries and derivatives counterparties) while removing those holdings that do not pose credit risk (e.g., equities, U.S. Treasuries and cash) produces this comprehensive, firmwide risk picture. This exercise typically involves collecting disparate, existing data feeds to arrive at a single data set that will be used in subsequent risk-management activities.

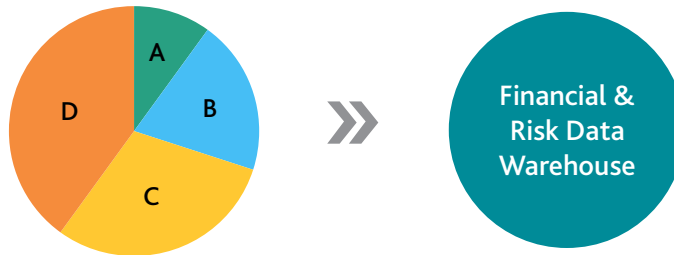
This centralized risk picture (typically a business-focused datamart that can be assembled quickly) reveals any data-collection gaps, and thus provides the institution with a clear plan for data improvement. Once this comprehensive view of risk is created, the next priority is to use it to affect credit origination activities.

Creating a centralized risk profile will offer immediate insights into the assumptions behind LGD models, which rating scales are used, and how overrides and pricing decisions are made. What's more, such a profile will yield data on month-over-month trends for key variables. An institution's origination and pricing activities, along with its portfolio and regulatory reporting, are directly improved by these efforts, ensuring a level of consistency in its activities while also highlighting areas that need improvement.

This picture of an institution's credit risk data, typically housed in a central financial and risk data warehouse, should next be linked to an institution's origination processes, as this will allow institutions to assess and price risk in the context of the entire portfolio and relationship hierarchies. This linkage between an institution's existing portfolio and its credit origination activities can range from portfolio strategy decisions to sector credit allocations to automated links between a loan decisioning system and an institution's existing book of business.

Institutions with these links will be in a better position to more effectively allocate their capital between different portfolio strategies, as well as to close any "backdoor" allocation of credit to a non-priority segment. Moreover, this approach enables coherent risk scales, automated limit monitoring, automated tracking of overrides and consistent pricing -- as well as the ability to target offers to existing counterparties of line increases and credit renewals. Armed with this comprehensive view of single obligor and group counterparty risks, institutions will be able to adopt obligor-specific strategies around retention, credit extension and pricing.

HOUSING CREDIT RISK DATA IN A CENTRAL DATAMART FOR CONSISTENT PICTURE



This data and risk integration effort can next be extended to include additional critical elements of the loan origination life cycle. Integrated decision management and well-structured workflow processes ultimately warrant the integration of covenant tracking, counterparty management, financial spreading, probability of default measures, LGD estimations, limits checking and back-office activities.

An integrated approach to credit origination allows institutions to benchmark their performance against different metrics and determine their overall credit origination consistency, or lack thereof, across portfolios. Enabled with diversified portfolios, well-allocated credit capital and a reduced operational burden, companies can now monetize their investment in origination systems with a higher ROC, ROA and ROI.

Since most of these processes are repeatable across new and existing customers, institutions have to make sure that they are taking the right steps forward to capture significant revenue savings and to allow for ongoing improvements.

© 2014 Moody's Corporation, Moody's Investors Service, Inc., Moody's Analytics, Inc. and/or their licensors and affiliates (collectively, "MOODY'S"). All rights reserved.

CREDIT RATINGS ISSUED BY MOODY'S INVESTORS SERVICE, INC. ("MIS") AND ITS AFFILIATES ARE MOODY'S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES, AND CREDIT RATINGS AND RESEARCH PUBLICATIONS PUBLISHED BY MOODY'S ("MOODY'S PUBLICATIONS") MAY INCLUDE MOODY'S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES. MOODY'S DEFINES CREDIT RISK AS THE RISK THAT AN ENTITY MAY NOT MEET ITS CONTRACTUAL, FINANCIAL OBLIGATIONS AS THEY COME DUE AND ANY ESTIMATED FINANCIAL LOSS IN THE EVENT OF DEFAULT. CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY. CREDIT RATINGS AND MOODY'S OPINIONS INCLUDED IN MOODY'S PUBLICATIONS ARE NOT STATEMENTS OF CURRENT OR HISTORICAL FACT. MOODY'S PUBLICATIONS MAY ALSO INCLUDE QUANTITATIVE MODEL-BASED ESTIMATES OF CREDIT RISK AND RELATED OPINIONS OR COMMENTARY PUBLISHED BY MOODY'S ANALYTICS, INC. CREDIT RATINGS AND MOODY'S PUBLICATIONS DO NOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND CREDIT RATINGS AND MOODY'S PUBLICATIONS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. NEITHER CREDIT RATINGS NOR MOODY'S PUBLICATIONS COMMENT ON THE SUITABILITY OF AN INVESTMENT FOR ANY PARTICULAR INVESTOR. MOODY'S ISSUES ITS CREDIT RATINGS AND PUBLISHES MOODY'S PUBLICATIONS WITH THE EXPECTATION AND UNDERSTANDING THAT EACH INVESTOR WILL, WITH DUE CARE, MAKE ITS OWN STUDY AND EVALUATION OF EACH SECURITY THAT IS UNDER CONSIDERATION FOR PURCHASE, HOLDING, OR SALE.

MOODY'S CREDIT RATINGS AND MOODY'S PUBLICATIONS ARE NOT INTENDED FOR USE BY RETAIL INVESTORS AND IT WOULD BE RECKLESS FOR RETAIL INVESTORS TO CONSIDER MOODY'S CREDIT RATINGS OR MOODY'S PUBLICATIONS IN MAKING ANY INVESTMENT DECISION. IF IN DOUBT YOU SHOULD CONTACT YOUR FINANCIAL OR OTHER PROFESSIONAL ADVISER.

ALL INFORMATION CONTAINED HEREIN IS PROTECTED BY LAW, INCLUDING BUT NOT LIMITED TO, COPYRIGHT LAW, AND NONE OF SUCH INFORMATION MAY BE COPIED OR OTHERWISE REPRODUCED, REPACKAGED, FURTHER TRANSMITTED, TRANSFERRED, DISSEMINATED, REDISTRIBUTED OR RESOLD, OR STORED FOR SUBSEQUENT USE FOR ANY SUCH PURPOSE, IN WHOLE OR IN PART, IN ANY FORM OR MANNER OR BY ANY MEANS WHATSOEVER, BY ANY PERSON WITHOUT MOODY'S PRIOR WRITTEN CONSENT.

All information contained herein is obtained by MOODY'S from sources believed by it to be accurate and reliable. Because of the possibility of human or mechanical error as well as other factors, however, all information contained herein is provided "AS IS" without warranty of any kind. MOODY'S adopts all necessary measures so that the information it uses in assigning a credit rating is of sufficient quality and from sources MOODY'S considers to be reliable including, when appropriate, independent third-party sources. However, MOODY'S is not an auditor and cannot in every instance independently verify or validate information received in the rating process or in preparing the Moody's Publications.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability to any person or entity for any indirect, special, consequential, or incidental losses or damages whatsoever arising from or in connection with the information contained herein or the use of or inability to use any such information, even if MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers is advised in advance of the possibility of such losses or damages, including but not limited to: (a) any loss of present or prospective profits or (b) any loss or damage arising where the relevant financial instrument is not the subject of a particular credit rating assigned by MOODY'S.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability for any direct or compensatory losses or damages caused to any person or entity, including but not limited to by any negligence (but excluding fraud, willful misconduct or any other type of liability that, for the avoidance of doubt, by law cannot be excluded) on the part of, or any contingency within or beyond the control of, MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers, arising from or in connection with the information contained herein or the use of or inability to use any such information.

NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY, TIMELINESS, COMPLETENESS, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF ANY SUCH RATING OR OTHER OPINION OR INFORMATION IS GIVEN OR MADE BY MOODY'S IN ANY FORM OR MANNER WHATSOEVER.

MIS, a wholly-owned credit rating agency subsidiary of Moody's Corporation ("MCO"), hereby discloses that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by MIS have, prior to assignment of any rating, agreed to pay to MIS for appraisal and rating services rendered by it fees ranging from \$1,500 to approximately \$2,500,000. MCO and MIS also maintain policies and procedures to address the independence of MIS's ratings and rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold ratings from MIS and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at www.moody.com under the heading "Shareholder Relations — Corporate Governance — Director and Shareholder Affiliation Policy."

For Australia only: Any publication into Australia of this document is pursuant to the Australian Financial Services License of MOODY'S affiliate, Moody's Investors Service Pty Limited ABN 61 003 399 657AFSL 336969 and/or Moody's Analytics Australia Pty Ltd ABN 94 105 136 972 AFSL 383569 (as applicable). This document is intended to be provided only to "wholesale clients" within the meaning of section 761G of the Corporations Act 2001. By continuing to access this document from within Australia, you represent to MOODY'S that you are, or are accessing the document as a representative of, a "wholesale client" and that neither you nor the entity you represent will directly or indirectly disseminate this document or its contents to "retail clients" within the meaning of section 761G of the Corporations Act 2001. MOODY'S credit rating is an opinion as to the creditworthiness of a debt obligation of the issuer, not on the equity securities of the issuer or any form of security that is available to retail clients. It would be dangerous for "retail clients" to make any investment decision based on MOODY'S credit rating. If in doubt you should contact your financial or other professional adviser.