

White Paper

Impact of Capital Rules on Risk Rating Systems

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Introduction

The rapidly evolving bank regulatory environment – particularly Basel II and Basel III capital requirements and stress testing – in addition to ongoing pressure to strengthen internal controls are placing new and costly burdens on credit risk modeling. Banks utilizing the Internal Ratings-Based (IRB)

approach for calculating capital requirements must build flexibility into their risk rating platforms to respond quickly to changes in market conditions and regulations.

This white paper summarizes information provided by Deloitte & Touche LLP and ACTICO during their joint webinar hosted by the Global Association of Risk Professionals (GARP). It provides an overview of current market trends, and looks ahead to new regulations and what they will demand of risk rating platforms.

The white paper provides key insights into:

- The increased focus on risk rating platforms used by banks
- Perspectives on operational streamlining
- The importance of internal credit risk rating with a rule-based approach
- Empowering the business by using a credit risk rating platform



Evolving U.S. Banking Regulatory Landscape

There has been a significant regulatory effort to overhaul risk management since the economic downturn. Capital and liquidity are key levers that regulators use to gauge a financial institution's health. When considering regulatory requirements, common themes include:

- **Interconnectedness of U.S. regulatory landscape:** Many regulations use the same systems and require similar due dates, resulting in processes becoming interconnected and new models materializing to accommodate these processes.
- **Types of regulations:** New forms of regulations are emerging such as Basel III, Volcker Rule, Liquidity Coverage Ratio (LCR) and the Supplementary Leverage Ratio, which provide an overview of the financial institution's health based on today's economy. Others also exist that analyze the financial institution's stability based on the potential future state of the economy.
- **Governance:** Banks must adapt and learn how to comply with new regulations for the long haul in order to drive success. To achieve this, they need to assure sustainable models through effective controls, the three lines of defense approach and independent reviews.

Applicability of Regulations Across U.S. Banks

The breadth and depth of regulations keeps expanding, and the applicability of regulations varies by bank type (BHC, SLHC or DI) and by the asset size of the bank. For example, larger banks are subject to more stringent regulatory requirements, such as Supplementary Leverage Ratio (SLR), Countercyclical Capital Buffer (CCB) and Liquidity Coverage Ratio (LCR). Small banks will be particularly affected by stress testing, Basel III (Standardized Approach) and the Modified Liquidity Coverage Ratio.

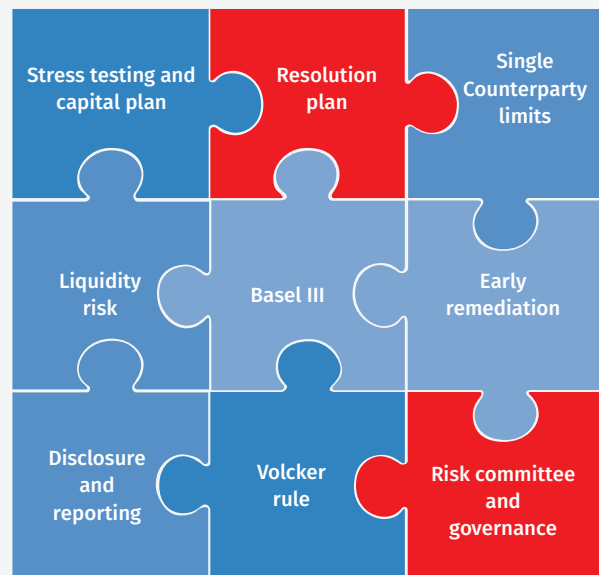
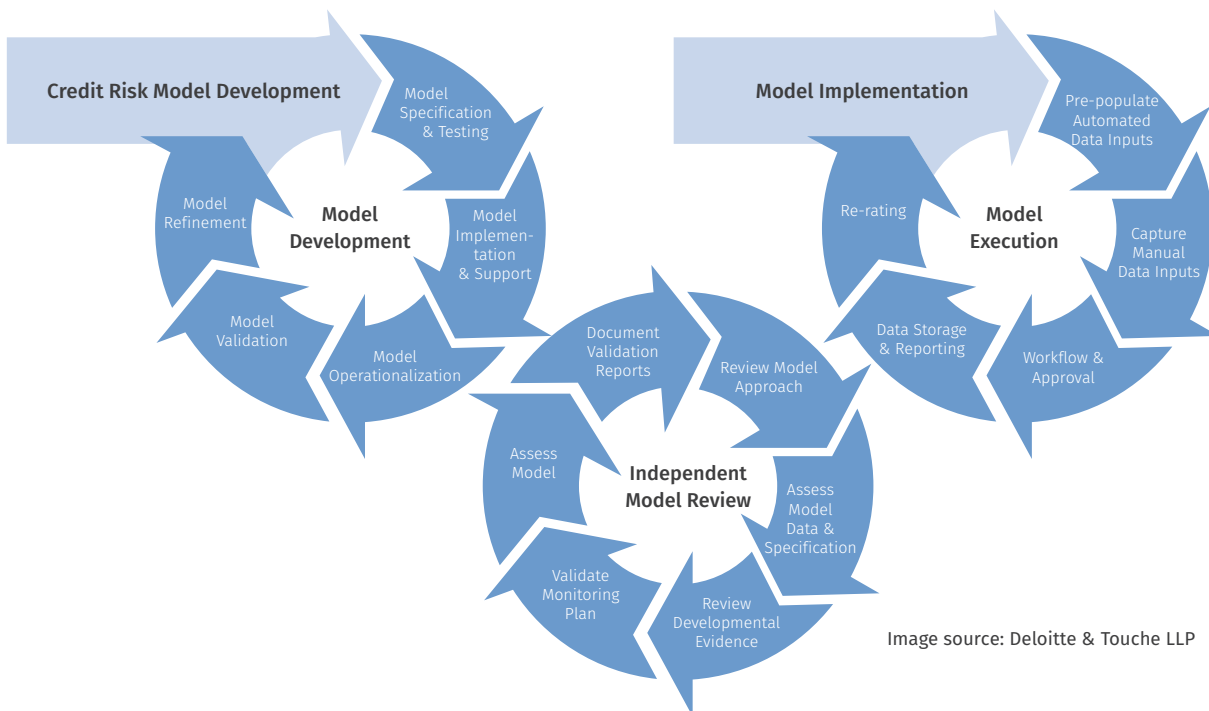


Image source: Deloitte & Touche LLP

Compressing the Model Lifecycle

Regulatory and market pressures are driving inter-linkages across credit risk model lifecycle processes. Three key phases of the model lifecycle are credit risk model development, independent model review and model execution. Banks need to compress the lifecycle so that these phases come together seamlessly and become available to end users quickly once they are developed and approved.



Key Considerations

Model execution platforms and processes are evolving rapidly to keep pace with business needs. Key considerations for model implementation and execution include:

User base: In addition to underwriters, model execution platforms support the needs of a diverse user base including model development, model risk management and internal audit teams, and other stakeholders.

Regulatory compliance: New regulations and guidance impacting model development and implementation, such as OCC 2011-12, Basel III and CCAR, have increased the burden on model execution platforms.

Fragmentation of technology: Platforms are increasingly capable of seamlessly integrating with disparate model execution data sources (e.g., Spreading Applications, Customer/Facility/Collateral data sources), reporting/analytics tools and downstream consumer models and systems.

Changes in portfolios: Bank portfolios have been changing in response to product innovation, mergers and acquisitions, and changes in market conditions. Model implementation processes and related platforms are evolving to support reduced time-to-market for new models that cater to the varying portfolios.

Multi-use platforms: Model execution platforms initially used for Credit Risk PD/LGD model implementation are also being used for EAD, CCAR models and related functionality, if implemented correctly.

Data Management

Establishing clear governance and processes around data sourcing and cleansing that support the model is critical, whether it be internal, market or macroeconomic data. The factor inputs used in the field to impact credit rating are provided to the model development team so they can calibrate the model manually – and in many cases in an ad-hoc fashion. Therefore, an area of regulatory focus is on the agility of risk rating systems. Regulators will analyze how quickly feedback can be delivered to the model development team so that information can be used to refine the model in a timely manner. In order to effectively manage data, the credit risk rating platform and model execution team play an important role.

ACTICO Credit Risk Rating Platform

ACTICO's Credit Risk Rating Platform is a robust and scalable solution for the implementation and deployment of internal rating models. With a single, central platform, multiple rating models of any level of complexity can be mapped with ease.

Comprehensive and modular: It supports a wide range of operational credit risk management processes (e.g., financial spreading, risk rating and processing early warning signals) as well as analytical ones (e.g., reporting, simulation, stress testing). The platform's modules can be used as standalone applications or as a comprehensive integrated solution.

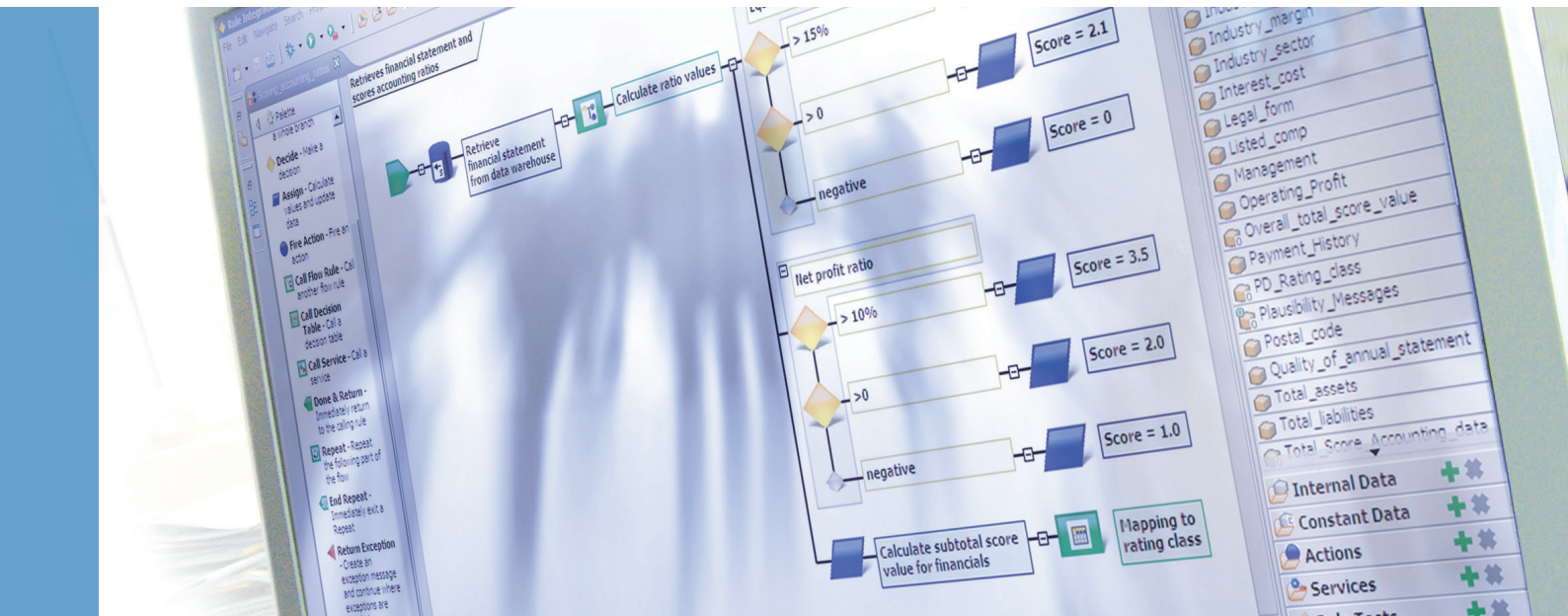
Centralized, standardized and consistent: Banks using the Credit Risk Rating Platform can implement any type and number of rule models – particularly risk rating models – on a central platform. This includes scoring/rating models for evaluating the creditworthiness of borrowers (probability of default), loss given default and models for risk-sensitive pricing.

Flexibility: The platform can be fully adapted to each customer's requirements. The configuration is performed using a graphical administration platform, so model administrators are free to design and expand scoring/rating models, user interfaces, workflows, data models, authorization concepts and report templates without any programming.

Powerful simulation capability: The Credit Risk Rating Platform contains a built-in processing engine for running simulations, which makes it possible to perform the operational and analytical risk management on a central platform. The application can simulate changes to a rating model before it goes live as well as changed ("stressed") risk factors of an internal rating model.

Seamless integration: Existing systems can access the Credit Risk Rating Platform via a standard interface (web services). This means: third-party applications (e.g., core banking systems, loan origination systems) can initiate risk rating processes and receive results; all internal and external data sources can be connected for importing data, and standard interfaces can be provided to numerous external data suppliers (e.g., credit bureaus, rating agencies, market data providers).

Full audit trail: The platform ensures maximum auditability for model administration as well as during the operational execution of processes (e.g., ratings, financial spreading).



Conclusion

With the ever-changing regulatory environment, banks and financial institutions are continually striving to improve their risk management tools and methods. Banks must ensure that all utilized approaches are compliant with Basel II and Basel III capital requirements and stress testing. The underlying rating models and workflows are complex and subject to constant adaptations and optimizations, thus require a flexible and auditable process for modifying business rules. Are you prepared to meet the challenges of establishing and executing an internal rating system in today's evolving regulatory environment? For more information on how to do so, please contact Kieran Hennessey at kieran.hennessey@actico.com, or visit www.actico.com.

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ACTICO is a leading international provider of software solutions and technologies for decision management.

In a digital world it is necessary to process large volumes of data and make fast, consistent and auditable decisions; that is where our software solutions provide an advantage. Business rules and processes can be easily adapted and executed automatically, which improves the efficiency and agility of our customers in their competitive area. This also enables them to accelerate their growth, innovate effectively, stay compliant and as a result, increase profits.

ACTICO provides software solutions for the areas:

- Credit Risk Management: Assess and monitor credit risk
- Loan Origination: Automate credit checks and decisions
- Compliance: Enable transparency, comply with regulations and avoid fraud
- Claims Management: Make claim settlement processes quicker, consistent and cost-effective
- Client Management: Handle sensitive customer data securely – from onboarding to reporting

ACTICO's roots go back to 1997 and Innovations Software Technology GmbH, which became part of the Bosch Group in 2008. ACTICO was formed when Bosch spun off its financial software operations in November 2015. As an independent company, it supports its international customers from locations in Germany, the U.S., and Singapore.

More information: **www.actico.com**