

SOLUTION GUIDE

Solution Guide to Credit Risk Management in Banking

Leveraging software and services

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SUMMARY

Catalyst

While governments and regulatory bodies are trying to revive their economies and are putting pressure on banks to increase their lending, the industry's ability to manage credit risk remains weak. This is boosting a re-evaluation of credit risk management processes and the underlying technologies that can minimize exposure to current and future credit losses. In response, the competitive landscape has become crowded with a large and diverse set of software and services providers, making the selection process more complicated for banks.

Ovum view

The market for credit risk management solutions in the banking industry has matured extensively as a result of the recent credit crisis. The overall credit risk area is quite extensive and has two major areas of functionality: front-office credit assessment and middle/back-office credit management tools. However, a number of recent credit risk-related projects focused mainly on underlying technologies predominantly related to data management issues. The relevant solutions in many cases involved software packages (vendor-developed or third-party applications through partnerships), ad hoc implementations, and business/technology consulting engagements.

Key messages

Credit risk is a vital component of overall risk mitigation

The area of credit risk is typically defined as the possibility that a bank borrower will fail to meet its obligations in accordance with the agreed terms. The main reason for growth of the credit risk management area is the ongoing and pressing need to maximize a bank's risk-adjusted rate of return by maintaining credit exposure in acceptable parameters. In order to function, FSIs need to manage the credit risk inherent in an entire portfolio, as well as the risk in individual credits or transactions. The successful management of credit risk is a vital component of a comprehensive approach to risk management, and is fundamental to the long-term success of any banking institution.

Banks need better tools to mitigate credit risk exposure

Credit risk in many cases is the entry point of addressing other interconnected risk areas (such as market or liquidity risks), with the twin drivers being regulatory changes and the now all-too-obvious need for improved exposure aggregation capabilities. Due to the history of investment and the maturity of the applications already adopted, there is a revisiting of the fundamental principles of credit risk utilizing current infrastructure. However, the need to collect the data required to meet regulatory challenges, in addition to the renewed willingness of organizations to revisit their risk processes, indicate that the next great challenge of credit risk management is at hand. The re-evaluation of credit risk management practices is therefore at the top of many risk officers' agendas across the financial services industry. Consequently, new concepts, procedures, processes, tools, and underlying technology are needed.

Banks should to focus on reliability, commitment, and rich capabilities when assessing vendors

The technology evaluation criteria should be focused on areas that relate to banking credit risk management strategy: reliability (making sure that solutions provide reliable information for decision making), commitment to the banking sector (solutions that fit well into the overall credit risk process and integrate with existing technology), and rich capabilities (sophisticated functionality for various scenarios, market segments or geographical markets). Moreover, the focus on solutions that fit into an overall risk framework as opposed to point solutions that are hard to integrate is more desirable in the long term, particularly if focusing on enterprise-wide risk management strategy. This focus, in the long term, will decrease the number of overlapping processes and complexity across banking systems.



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MARKET DEVELOPMENTS

Organizations must revisit their credit risk processes

While most economies are looking forward to a recovery from a very steep downturn in the financial markets, bankers and others are working on improving their credit risk management practices. Clearly, the credit crisis revealed that underperforming institutions did not manage their risks sufficiently well.

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The institutions that were hardest hit during the recent credit and financial crisis due to inadequate credit risk management but managed to survive the severe business environment are most interested in improving their risk practices. Repairing relevant processes became a top priority for many banks throughout the industry. An army of consultants has emerged with best practices and technologies, and job offer sites are full of risk management job descriptions. While many software vendors ran to offer their solutions, many of the projects seen recently on the market aim to improve data integration, data management, and the consolidation of siloed risk applications.

Credit risk must be treated as a component of a wider risk strategy

The major recent trends in the risk area point toward the creation of a holistic approach to risk management that includes credit, market, liquidity, operational, or regulatory risk areas. While the importance of various risk areas in the short term varies, the long-term cost savings relating to a common risk platform, and particularly an interconnected view of multiple forms of risk, have convinced many risk officers to invest strategically rather than focus on point solutions. A typical bank uses multiple platforms, different risk assessment methodologies, and bases its decisions on unique assumptions. However, the main advantage of a unified enterprise-wide risk management system is to allow risk officers to link different types of information, and consequently, measure risk across business silos.

Banks should focus on a framework approach when evaluating credit risk technology

The area of credit risk management was significantly highlighted during the recent credit crisis. As a result, the importance of the practice should be perceived at the same degree of mission criticality as other fundamental enterprise platforms such as core banking or payments systems. The technology evaluation criteria should be focused on areas that relate to banking credit risk management strategy: reliability (making sure that solutions provide reliable information for decision making), commitment to the banking sector (solutions that fit well into the overall credit risk process and integrate with existing technology), and rich capabilities (sophisticated functionality for various scenarios, market segments, or geographical markets). Moreover, the focus on solutions that fit into an overall risk framework as opposed to point solutions that are hard to integrate is more desirable in the long term, particularly if focusing on enterprise-wide risk management strategy. In the long term this would decrease the number of overlapping processes and complexity across banking systems. However, in reality many banks continue to buy technology solutions to support point-specific requirements, with different lines of business choosing different vendors for similar tasks. This in turn leads to increased complexity, delays for future implementations, and escalating costs.

Business intelligence and analytics are required for stronger credit risk oversight

The focus on credit risk management from both a regulatory and management perspective requires banks to provide a more comprehensive view of their credit risk exposure. One of the main needs is to record and monitor risks so that a bank is always completely aware of its overall credit risk exposure. Banking organizations therefore need to implement more advanced systems to manage risks and capital. Classic governance solutions are typically capable of handling reporting aspects. However, this has to be extended into (near) real-time processing and closed-loop systems to give risk managers sufficient control. Internal IT departments and a variety of specialist software vendors already support the advanced modeling techniques required to measure credit risk. Business intelligence and analytics capability supports embedding these risk models into day-to-day risk management systems to provide intra-day risk reporting and capital allocations.

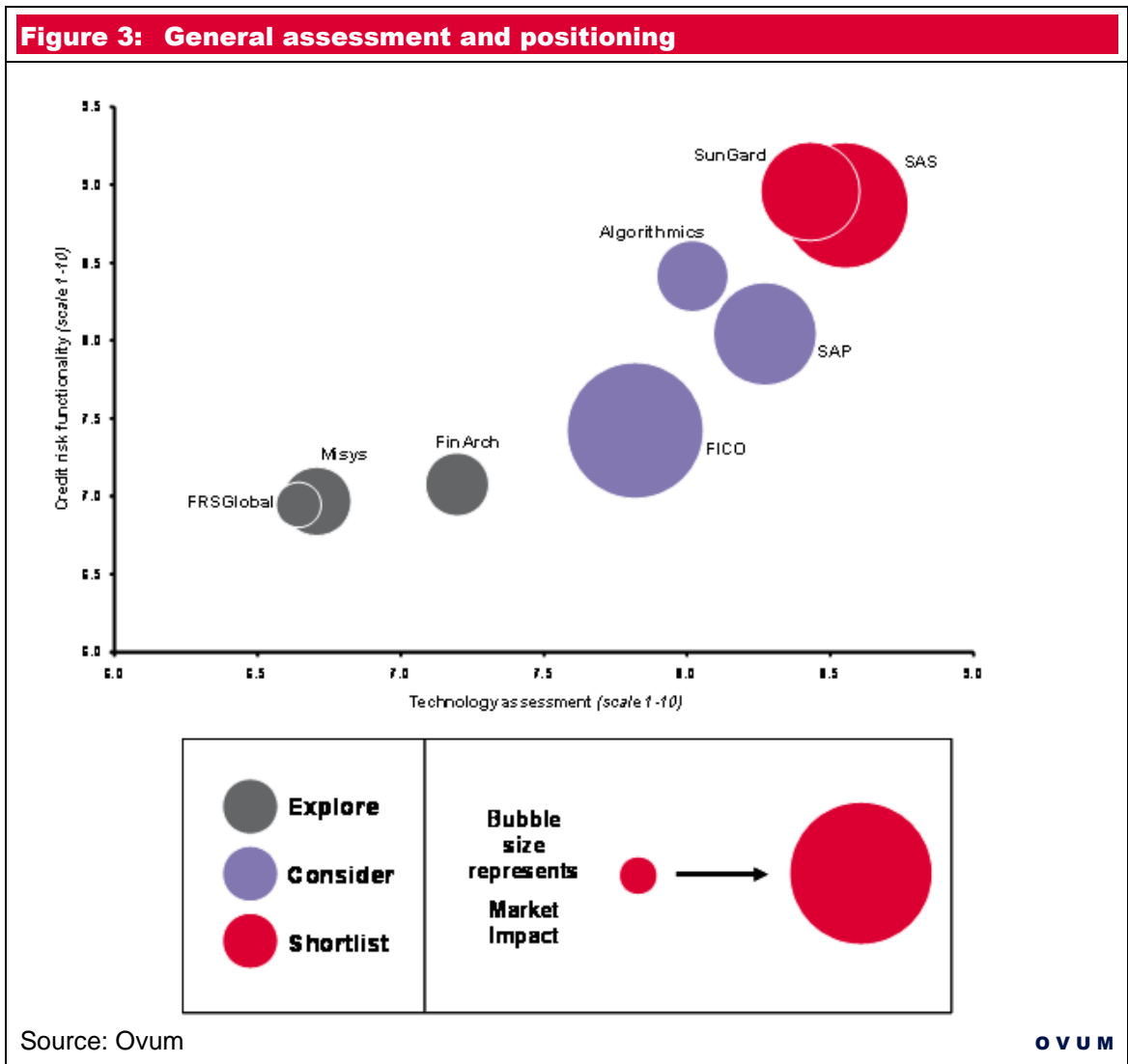
THIS REPORT

This report provides a summary of SAS Credit Risk Management capabilities based on a quantitative assessment of their influence in the market, the quality and breadth of the provided functionality, as well as the underlying technology. Ovum also provides guidance for institutions looking to deploy credit risk management solutions and advises whether they should shortlist, consider, or explore solutions from these vendors. Ovum uses the following definitions for each of these recommendations:

- **Shortlist:** this category represents the leading solutions that we believe are worthy of a place on most technology selection shortlists. The vendor has established a commanding market position with a product that is widely accepted as best of breed.
- **Consider:** the vendors in this category have a good market positioning and are selling and marketing the product well. The products offer competitive functionality and good price-performance proposition, and should be considered as part of the technology selection.
- **Explore:** solutions in this category have less broad applicability, and may have limitations in terms of the product's functionality or the vendor's execution capability. However, they will still be suitable to meet specific requirements, and may be worth exploring as part of the technology selection.

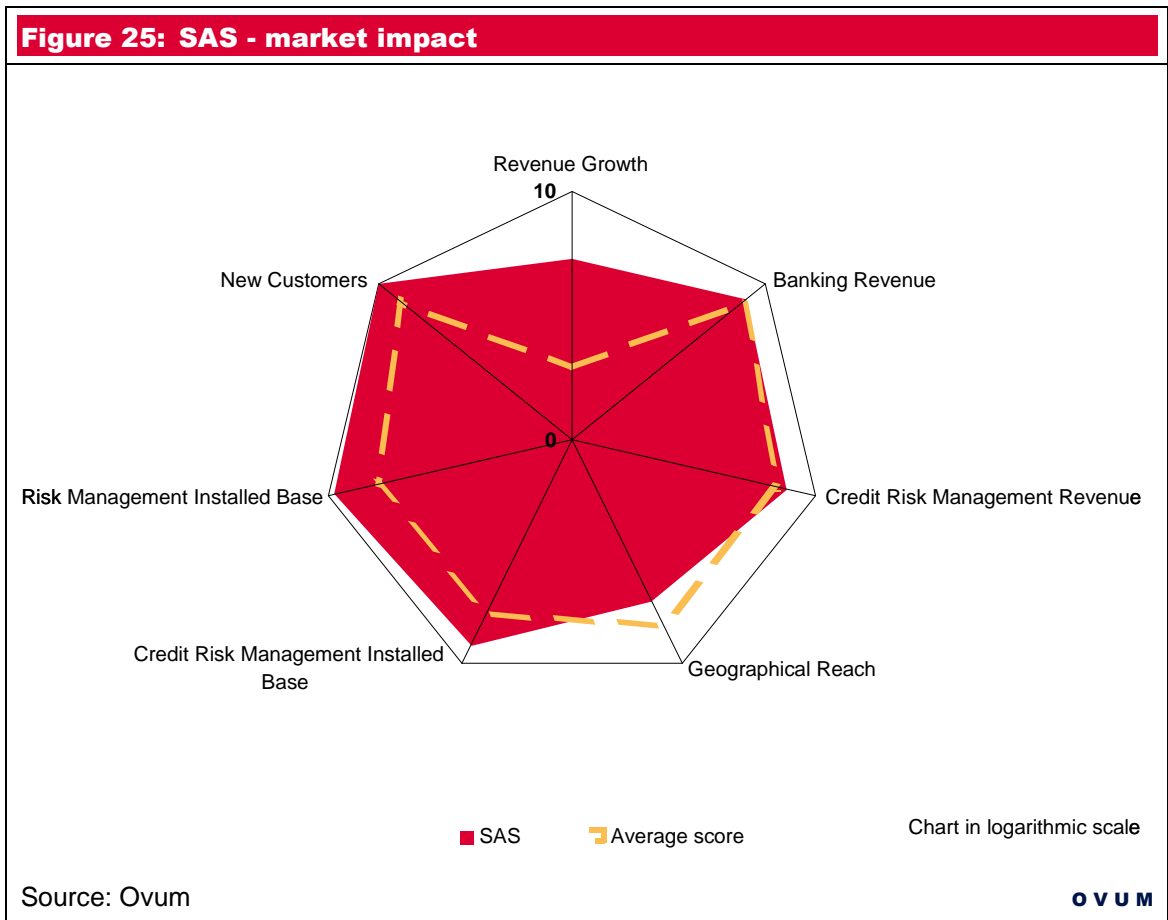
Because realizing value from credit risk management technology is critically dependent on the solution's ability to execute the bank's overall risk management strategy, a decision to purchase a specific solution should be based on a broad array of factors including but not limited to the degree of alignment between the solution's functionality, underlying technology, and the specific objectives of the bank's risk management strategy. As a result, Ovum's recommendations of shortlist, consider, and explore should be taken only in the context of a bank's specific solution requirements.

Assessment and positioning

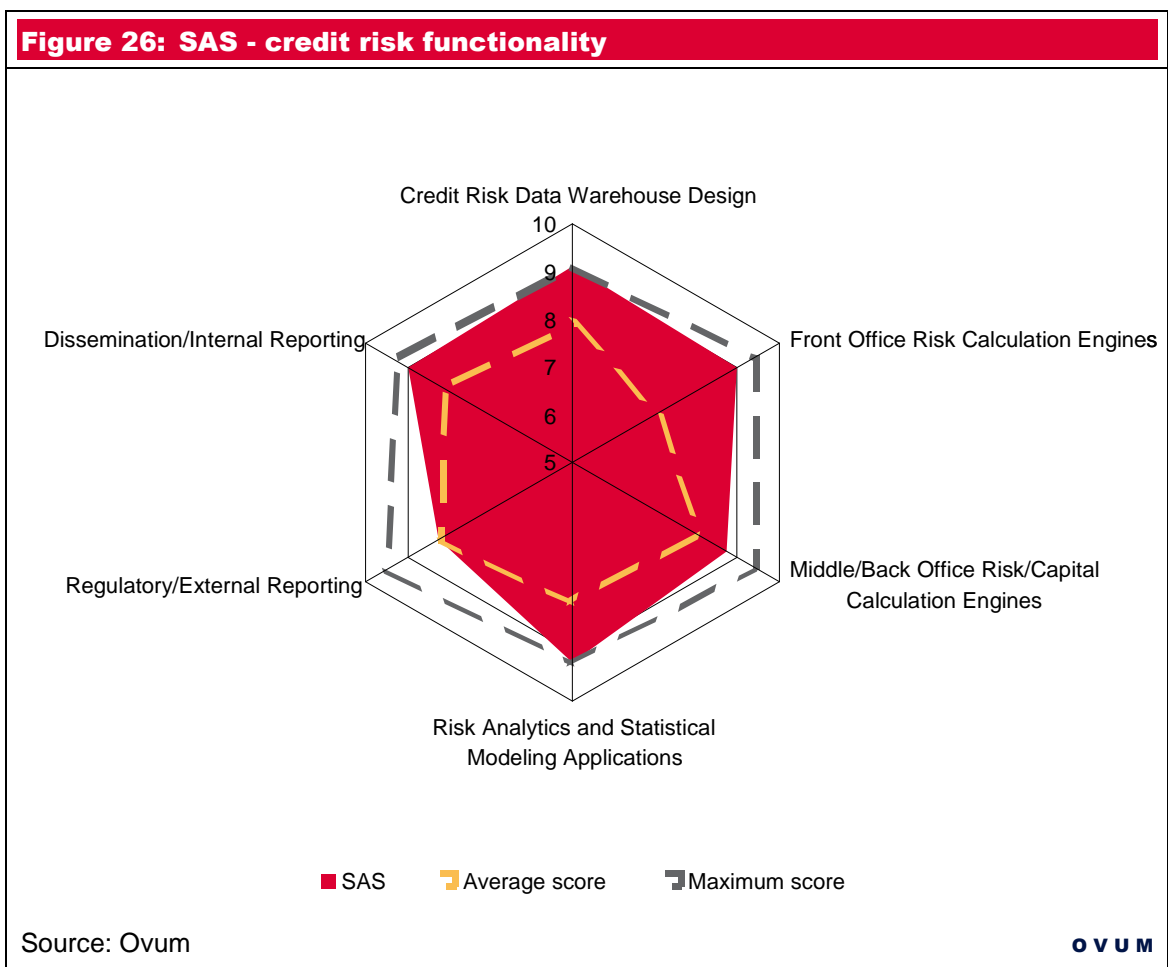


SAS Institute

SAS Institute, which is headquartered in Cary, North Carolina, provides credit risk management that comes from its business intelligence and analytics practice. It started with tools and frameworks focused on data management and analytics in the 90s, and the company has a risk management solution that is now about years old. The vendor managed to maintain both overall revenue growth and credit risk related revenues during the recent crisis. SAS's major markets are the Americas and EMEA, with solid footprint in Asia-Pacific. The company is doing relatively well in terms of new client acquisitions. It has developed a strong offering in risk management, with well integrated credit risk components. Our overall market impact rating is presented in Figure 25.

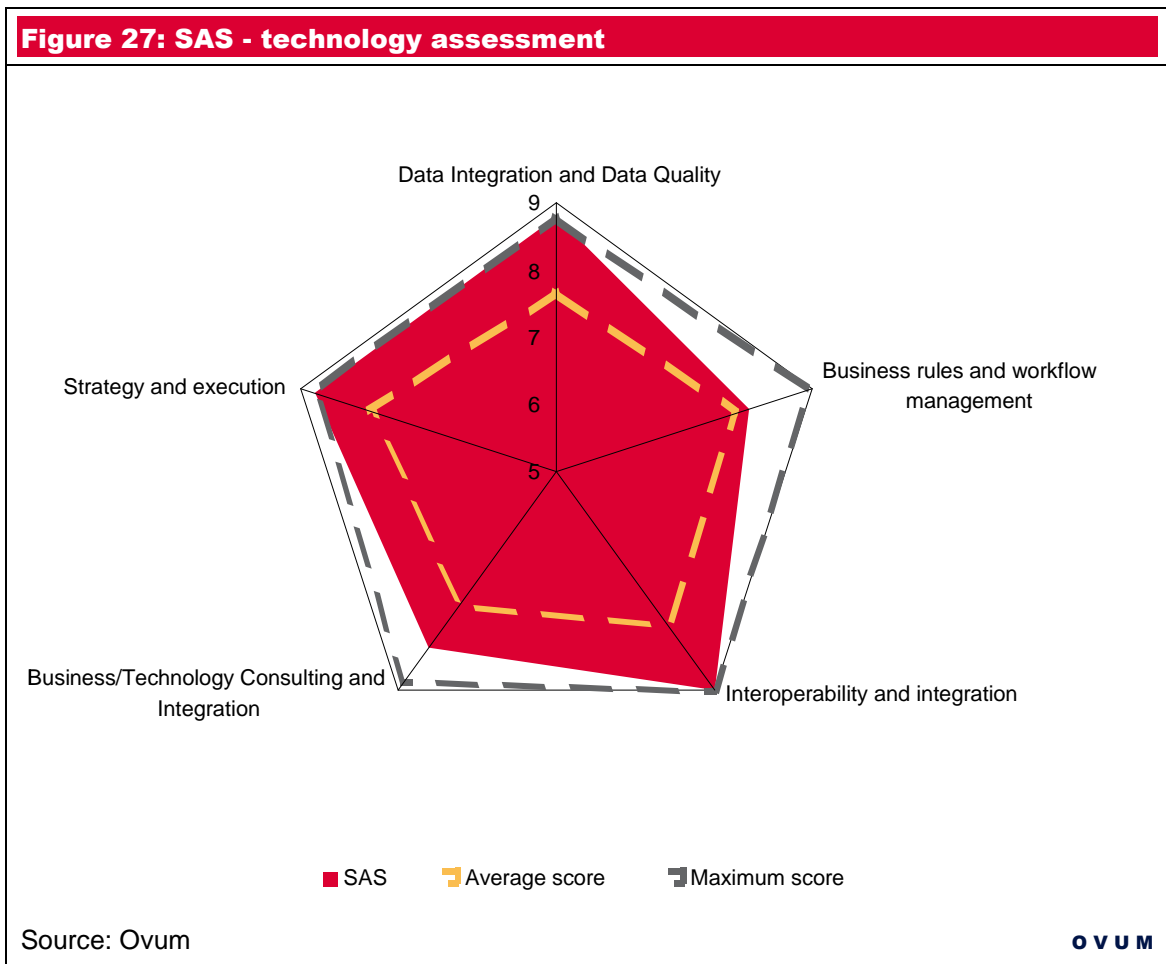


The credit risk components (Credit Risk for Banking and Credit Scoring for Banking) are the main strengths in the overall risk management suite. Credit Scoring offering supports an internal rating system designed to support decision management throughout the credit lifecycle. Credit Risk offering supports various middle-office risk calculations, and also regulatory requirements. These solutions are rich in analytics with predictive components. Reporting functionality is provided via the Business Intelligence suite and can be easily integrated with Microsoft's Office suite. Our overall functionality rating is presented in Figure 26.



Given its roots, the company is strong in the underlying technology: data management and integration, which is provided through its SAS 9 platform. With its SAS Detail Data Store for Banking, SAS is one of only a few vendors that supports the concept of an enterprise data

warehouse that provides a data foundation layer for a number of middle and back-office analytical applications. Although this concept is technologically advanced, its adoption in the banking industry is still relatively low. Nonetheless, SAS's technology has strong data consolidation functions. In addition, it has been enhanced with the Risk Advantage Program from SAS and Teradata that is focused on creating the ability to run and optimize key SAS analytic processes in the Teradata warehouse engine. SAS derives revenues through software sales and partners with a number of integrators for credit risk-related services. Our technology rating is presented in Figure 27.



Recommendation: Shortlist

SAS provides an exceptionally complete and robust credit risk management solution through the successful combination of underlying technologies and risk functionality. In addition, the strong



focus on risk management provides a solid foundation for the vendor to become a strategic technology supplier in the long run for enterprises that are looking for an integrated approach to enterprise risk management. Consequently, Ovum believes that banks seeking to implement a credit risk management solution from which they can realize long-term value should shortlist SAS.