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DFI INSIGHTS

BUILDING RESILIENCE: GETTING STARTED ON CREDIT RISK MANAGEMENT

THE BASICS

Credit risk refers to the likelihood that a borrower will fail to repay a loan or other debt. Usually, risks cannot be eliminated. However, they can be avoided, prevented, and managed to minimise their impact. Credit risk management – the discipline of identifying, measuring, monitoring, managing, and reporting on risks to client repayment – is a critical aspect of any financial institution, including Development Finance Institutions (DFIs).

The first step in Credit Risk Management (CRM) is to identify the risks. Your DFI should conduct a thorough analysis of your portfolio and analyse the industry, business, management, financial and emerging risks, assessing their impact. Based on the impact, your DFI can decide not to finance the business or to put in place different mechanisms to mitigate risks, depending on its risk appetite.

WHY DO DFIS NEED TO PUT IN PLACE CREDIT RISK MANAGEMENT?

By managing credit risk effectively, DFIs can protect their financial resources, maintain their financial stability, and enhance their reputation as a reliable lender. Additionally, sound credit risk management can help DFIs achieve their mission of supporting economic development and promoting financial inclusion.

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WHY IS COLLATERAL AN INSUFFICIENT TOOL FOR RISK MANAGEMENT?

Financial institutions (FIs) sometimes use collateral-based lending as a form of risk management, but relying solely on collateral for credit decisions can be problematic. Collateral may not always be a reliable indicator of a borrower's creditworthiness or their ability to repay a loan, and its value may not cover potential losses in principal, interest, fees, and expenses. Focusing solely on collateral can also distract from a thorough analysis of a borrower's financial situation and cash flow, which is a more accurate predictor of their ability to repay a loan. Additionally, managing collateral can be time-consuming and expensive, with legal, administrative, and collection costs adding to a financial institution's cost base. This can lead to resources being diverted away from more profitable portfolios.

Overreliance on collateral can also limit financial inclusion, as SMEs and other borrowers without sufficient tangible assets for collateral may be excluded from accessing credit. Therefore, it is crucial to approach credit decisions with a holistic risk analysis that goes beyond collateral assessment. For borrowers without sufficient cash flow to service and repay all loans, equity-based financing options may be more appropriate.

By taking a comprehensive and inclusive approach to credit risk management, FIs can enjoy several advantages. First, a CRM that considers various factors beyond collateral, such as cash flows, business structure, and outlook, can expand the borrower base for the DFI, promoting financial inclusion. Second, a comprehensive CRM often includes categorising borrowers into different risk groups, enabling the FI to allocate its resources more efficiently, focusing those borrowers who require closer risk management oversight.

IMPLEMENTING CREDIT RISK MANAGEMENT IN YOUR DFI

For sound credit risk management, your DFI should:

- **Identify and understand the risks your DFI is exposed to:** DFIs can identify risks through proper risk analysis, monitoring financial and non-financial indicators, and using risk management tools and software. Regularly tracking and managing risks enables DFIs to make informed credit decisions, mitigate potential losses, and achieve their mission of supporting economic development and financial inclusion.
- **Measure and assess the impact of risks on your business.** There are different standards that your DFI can use:
  - **IFRS 9 accounting standards** enhance risk analysis by requiring entities to assess credit risk based on expected credit losses rather than just incurred losses. It introduces a forward-looking approach, incorporating macroeconomic factors and historical data to predict credit losses over the entire life of financial instruments. This standard also mandates regular reviews (every 12 months) of financial assets' credit quality, enabling timely adjustments to provisions for expected credit losses. IFRS 9 calculates expected credit losses using the formula:

    *Expected Loss = Probability of Default (PD) * Exposure at Default (EAD) * Loss Given Default (LGD).*

PD assesses the likelihood of a borrower defaulting within the next year, determined by aligning their credit rating with industry-standard data. EAD represents the full outstanding loan amount, and LGD varies based on collateral type. By multiplying these factors, IFRS 9 estimates the anticipated credit losses, offering a comprehensive approach to risk assessment in financial reporting management.

Example: a loan of $50,000 is rated 4 (an average SME, on a scale of 0 to 9), the loan is a 3 year term loan, and the collateral is the equipment being financed.

EL = PD x EAD x LGD = 0.0544 x 50,000 x 0.33 = Expected loss provision of $897.6 for this account

- **Stress testing** is a risk management tool that evaluates the vulnerability of a loan or portfolio to adverse economic conditions. It involves simulating **extreme but plausible scenarios**, such as a decline in revenue or an increase in financing costs, to assess the borrower's ability to repay the loan. However, stress tests should be used with caution, as they are based on forecasted numbers provided by entrepreneurs, which may not always be accurate. **Stress test results should not be the sole basis for a credit decision but rather used to identify potential vulnerabilities and perform further due diligence.**

Annual portfolio stress tests can provide valuable insights into the creditworthiness of a loan portfolio by analysing the migration of ratings over time and identifying emerging risks. These tests can also **reveal opportunities for portfolio growth**, such as under-represented industries with strong performance. Stress testing is generally more reliable for diversified portfolios, as the impact of adverse economic conditions may be mitigated by the performance of other loans in the portfolio.

- **Make good use of Risk Modelling/Forecasting**, which is increasingly required by regulators. It is a **quantitative approach** to assessing and forecasting potential risks that a financial institution may face. It involves creating **mathematical models** that simulate various scenarios, such as interest rate shocks, liquidity stress, credit risk, and capital forecasts. These models rely on external data, such as economic and interest rate data, to generate insights into potential risks, taking into account your DFI's strategic objectives and risk appetite. **Effective data management is critical** to improve the quality of analytical insights generated by risk models. High-quality data ensures accurate and reliable risk assessments, while poor data quality can lead to inaccurate forecasts and potentially harmful decision-making. While some of the necessary data for credit risk assessment may originate from external sources, which are beyond the DFI's control in terms of quality, the DFI can still ensure that it maintains the highest possible quality standards for its own data.
- **Weigh the identified risks against your DFI's risk appetite and expected development impact:** by defining its risk appetite, your DFI can make informed credit decisions, prioritise resources, and ensure that the risk-taking aligns with your mission and strategy. Risk appetite refers to the level and type of risk that a DFI is willing to accept in pursuit of its (development) objectives. DFIs should **develop a clear risk appetite statement** that outlines measurable outcomes, such as stress ratios, that align with their risk tolerance, risk capacity, and other possible regulatory limits. For example, your DFI could decide that the portfolio at risk with any principal or interest payment overdue 90 days or more (PAR 90) shall not exceed a certain percentage of the gross investment and loan portfolio. This statement should be subject to **regular review** to ensure its relevance.

- **Monitor its credit risk by regularly reviewing and assessing its loan portfolio.** Assessment of borrowers is crucial to detect any early signs of financial or business distress, allowing the bank to take swift and appropriate action to minimise potential vulnerabilities and manage risks effectively. Accounts should be reviewed within six months of a borrower's financial year-end, by analysing audited financial statements, relevant documents, and conducting a site visit with the entrepreneur. This can be done through annual credit reviews, portfolio reviews, and emerging risks analysis. Portfolio reviews can be conducted by sector, client size, risk rating, and exposure size, among other factors. Comparing loans within the same sector or industry group can provide a relative risk assessment of a new or existing client. Ranking exposures by risk and size can assist in determining portfolio optimisation and resource allocation.

  Monitoring credit risk also involves tracking emerging risks and conducting regular reviews of related parties, including beneficial owners. By regularly monitoring credit risk, DFIs can identify potential vulnerabilities, manage risks effectively, and achieve their mission of promoting economic development and financial inclusion.

WHAT SHOULD YOUR DFI DO IF YOUR CREDIT RISK REVIEW FLAGS A PROBLEM?

When an original business plan fails, it is essential to have an open discussion at the management and Board level of the business to analyse all available options promptly. Your DFI should support the client in adapting the strategy to optimisation, i.e. to still have the best financial outcome possible. This involves reassessing the current structure and considering alternatives:

- **Moratorium:** temporarily suspending certain activities or obligations, such as loan repayments, to alleviate immediate financial pressure.
- **Lending through a Production Cycle:** adjusting lending practices to align with the production cycle of businesses, potentially helping them convert their inventories into sellable goods. This could involve providing financing for inventory management or production processes.
- **Seasonal Cycle Management:** managing the bank's assets in accordance with seasonal fluctuations in the market, potentially avoiding selling assets at heavily discounted prices during low-demand seasons.
- **Creating a Going Concern:** maintaining the business operations until assets or the entire business itself can be sold off, ensuring continuity, and potentially maximising value.
- **Conversion to Equity:** instead of maintaining assets or loans, your DFI may consider converting its position into equity ownership in the business, which could offer a different avenue for potential returns.

It is crucial to transfer non-performing loans to a restructuring mindset within 90 days of missed payments, to help reduce losses from declining asset value, productivity, key SME staff, legal fees, and written-off accrued and unpaid interest. **Categorising risks using different levels** is also a good practice for effective risk management. By grouping risks into various categories based on their **severity, likelihood, and impact**, FIs can prioritise their risk management efforts and allocate resources more efficiently. To avoid impactful losses, the risk rating should not pass through two risk categories without first being identified on a "Watch List" to ensure timely intervention and mitigate potential losses.

CREDIT RISK MANAGEMENT SYSTEMS (CRMS)

Credit risk management systems provide the tools to help reduce credit risk by automating and enhancing efforts across the key areas of transparency, operational risk, and facilitation of compliance with regulatory process and policy objectives. These systems aim to reduce credit risk by streamlining processes and measuring success against business-oriented goals. An effective CRMS should:

- Include risk assessment and risk management tools to rank risks and test and assess control effectiveness, assign residual risk, test control effectiveness, document compensating controls, and reach a conclusion on overall control effectiveness.
- Facilitate the use of risk modelling/forecasting.
- Provide easy-to-use templates for regulatory and other risk assessments, including compliance, internal audit, physical security, and information technology.
- Business Impact and Threat Analysis tools can also be available to support business continuity and disaster recovery plans.

As there are a variety of CRMS options on the market, a solid understanding of system requirements, existing policies and procedures, and a supportive change management team are essential before selecting a vendor. Your DFI should consider the **trade-offs between cost, efficiency, and customisation**. Banks should leverage the CRMS to actively manage risk by monitoring control completions and issuing alerts for delinquent parties. Documentation of control execution should be uploaded into the system for review.

Overall, CRMSs offer significant process efficiencies and enhanced credit risk management capabilities, providing banks with a comprehensive, effective risk management information solution. **Data management is of course critical to improve the quality of analytical insight.** In the end, a model and risk report is only as good as the data you feed it. Therefore, for a CRMS to work, your DFI should make sure that staff is well-trained on data collecting, supportive of the change, and ready to adopt the new system and processes.

KEY QUESTIONS AND IMPLEMENTATION STRATEGIES

TO ASSESS THE CREDIT RISK EXPOSURE OF A CLIENT:

■ What is the historical financial performance of the SME?

- Has the SME consistently demonstrated profitability?
- How do its liquidity, solvency, and debt ratios look?
- Are there any concerning trends or irregularities in their financial statements over the past years?

■ What is the quality and reliability of the SME's management?

- What is the experience and track record of the management team?
- How effectively has the management responded to previous business challenges?
- Is there evidence of strong leadership, ethical governance, and strategic thinking?

■ How does the SME manage its cash flow?

- Are the cash flows stable and predictable, or do they exhibit volatility?
- How does the company manage receivables and payables?
- Are there robust mechanisms in place to ensure liquidity even under stress?

■ What is the SME's market position and competitive environment?

- What market does the SME operate in, and what is its market share?
- Who are the primary competitors, and what are the competitive pressures?
- How does the SME differentiate itself in the market (e.g., unique products, superior services, cost leadership)?

■ What are the potential risks and external factors affecting the SME?

- Are there any industry-specific risks such as regulatory changes, technological advancements, or economic downturns that could impact the business?
- How susceptible is the SME to changes in raw material prices, foreign exchange rates, or interest rates?
- Does the SME have contingency plans to handle these risks?

TO ASSESS YOUR DFI'S CURRENT CREDIT RISK MANAGEMENT APPROACH:

- **Do we have a clear credit risk management strategy** that aligns with our overall business objectives, risk appetite, and our intended impact as a DFI?
- **Have we established appropriate policies, procedures, and limits** to manage credit risk?
- **Are we conducting thorough credit assessments and analyses** before granting loans, and reviewing them on a regular basis?
- **Do we have effective risk identification, measurement, monitoring, and reporting processes in place?**
- **Are we utilising stress testing and scenario analysis** to assess the potential impact of adverse economic and industry conditions on our loan portfolio?
- **Have we identified and mitigated concentration risks** in our loan portfolio?
- **Do we have appropriate collateral management policies and procedures** in place, and are we effectively managing collateral to minimise credit risk?
- **Are we proactively managing and monitoring nonperforming loans** and impairments, and taking appropriate actions to mitigate potential losses?
- **Are our staff trained and competent** in credit risk management, and do we have a strong risk culture throughout the organisation?
- **Are we regularly reviewing and improving our credit risk management processes,** taking into account lessons learned from past experiences and regulatory requirements?

TO GUIDE YOU IN CHOOSING A CREDIT RISK MANAGEMENT SYSTEM:

What specific challenges are we facing in our current credit risk management practices?

- Are there inefficiencies or gaps in the current process that could be effectively addressed with a credit risk management system?
- Is manual risk assessment causing delays and potential errors?
- Are there issues in consistency and accuracy in credit risk evaluation across different departments or regions?

What are the regulatory compliance requirements for our credit risk management?

- What regulations must we adhere to in the regions we operate?
- Does the potential system offer functionalities that support compliance with these requirements?
- How will the system improve our reporting and monitoring to meet or exceed regulatory standards?

What technical capabilities and features must the system possess to meet our needs?

- What specific functionalities are crucial for our operations (e.g., risk assessment models, data integration capabilities, automated decision-making tools)?
- Does it need to be scalable to match our growth projections and adaptable to different types of credit products and services?
- How well can it integrate with our existing IT infrastructure?

What is our budget for implementing and maintaining a new credit risk management system?

- What are the initial costs of software acquisition, customisation, and implementation?
- What are the ongoing expenses related to maintenance, updates, training, and support?
- How do the costs compare against the anticipated efficiencies and potential risk reduction benefits?

How should we evaluate potential vendors and their systems?

- What is the market reputation of the potential vendors?
- Can the vendors provide case studies or demonstrations that showcase effective implementation and impact?
- What levels of customer support and training do they offer?
- Are there opportunities for a trial period to evaluate the system's effectiveness in real operational conditions?

DEEP DIVE: CREDIT RISK MANAGEMENT IN PACIFIC DEVELOPMENT FINANCE INSTITUTIONS

DFIs in the Pacific region face unique challenges in managing credit risk due to the distinct economic and regulatory landscapes of small island economies. A roundtable organised in 2021 by the ICR Facility and the Development Bank of Samoa highlighted several critical insights and collaborative initiatives aimed at addressing these challenges. Participants from various DFIs shared their experiences and challenges, revealing a spectrum of technological adoption levels. For example, the Development Bank of Samoa mainly relies on manual processes, whereas the Bank of Cook Islands has integrated more advanced digital solutions. This disparity presents an opportunity for cross-learning and collaboration.

Key issues in Credit Risk Management

DFIs in the Pacific are keenly aware of the need for robust credit risk management frameworks. A recurring issue identified during the roundtable was the lack of appropriate systems for initial loan appraisal and continuous credit risk rating, which have been inadequate for tackling the recent economic downturn. This has led to a growing consensus on the necessity of adopting automated CRM software, as programmable CRM software can streamline the loan application process, enhance the accuracy of borrower risk ratings, and facilitate regular credit risk reviews.

DFIs could also benefit from partnerships with national or public data pools to expedite credit appraisals, thereby enhancing borrower experiences. However, the DFIs agree that the transition to automated systems must preserve the human touch, especially at the start of client engagement, to maintain trust and ensure the system's effectiveness.

The regulatory landscape

The regulatory environment significantly influences credit risk management practices. Pacific DFIs operate under varying degrees of regulatory oversight. Some, like those in the Federated States of Micronesia and Palau, are not regulated by independent authorities and must independently adopt best practices. Others, such as the Bank of Cook Islands, operate under commercial banking regulations, which can constrain their development mandates. Effective credit risk management becomes even more critical when DFIs engage in countercyclical investments or manage government funds for economic recovery, as seen in the post-pandemic era.

Conclusion

The roundtable emphasised the importance of regular risk reviews, credit risk ratings, and risk-rated pricing as integral components of a robust CRM framework. However, these initiatives must balance technological efficiencies with personal client interactions to avoid loss of nuanced insights during loan assessments. The discussion underscored the need for continuous dialogue and resource sharing among Pacific DFIs, with the ICR Facility playing a pivotal role in facilitating this collaboration.

FURTHER READINGS

- Advanced credit risk rating platform - A launch pad for better risk management (Deloitte, 2017)
- Capturing all risk tasks “with one elephant”: Can any one system contain the whole risk management challenge? (Banking exchange, 2023)
- Credit risk management principles, tools and techniques (The Global Treasurer, 2019)
- Credit risk measurement technology trends: Charting the course from legacy issues to strategic solutions (Deloitte, 2019)
- Fintech Credit Risk Assessment for SMEs: Evidence from China (IMF, 2020)
- How to quantify credit risk (Investopedia, 2023)
- Staying above Water – Challenges to Credit Risk Management in the Pacific (ICR Facility)

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The ICR Facility supports public and private stakeholders in African, Caribbean and Pacific (ACP) countries in creating a more conducive, sustainable and inclusive business environment and investment climate.

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