Deposit Insurance
Corporation of Ontario
Société ontarienne
d'assurance-dépôts

Application Guide:

Enterprise Risk Management

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Ce document est aussi disponible en français.

Notice

This document is intended as a reference tool to assist Ontario credit unions to develop an appropriate enterprise risk management framework. This document does not replace any provision of the Credit Unions and Caisses Populaires Act, the Regulations under that Act, or any other legal requirements applicable to Ontario credit unions. While DICO has made good faith efforts in preparing this document in accordance with DICO's statutory authority, DICO makes no representation, warranty or condition, express or implied.

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Contents

Application and Introduction

This document is intended to provide additional information and guidance on implementing an effective Enterprise Risk Management (ERM) program for all credit unions. This ERM guide should be used in conjunction with the ERM Framework document in developing an ERM program within the credit union.

The basic principles outlined in these documents will need to be modified and appropriately scaled to reflect a credit union's size and complexity. This will include consideration of the range of products and services offered to depositors, capital structure, geographic coverage, business strategies and technology.

The ERM program should evolve as a credit union grows in size and complexity to ensure that all significant new or increased risks are appropriately considered and addressed as part of the on-going review and assessment process.

Getting Started

ERM implementation is not a one-time event. It is a process that commits the credit union to an on-going program of continuous improvement and change that requires time, resources and planning. It provides a consistent frame of reference (understanding) and common language by which risks are identified, described, measured, mitigated and reported. This is a cultural shift that starts at the Board level and permeates down through senior management and finally to all other levels. This support is demonstrated by the implementation team through their on-going commitment of time, resources, training, coaching and support to those charged with responsibilities to ensure the achievement of ERM objectives.

As with any new process, project and change management are important success factors. Each credit union should use its existing project management framework for implementing and monitoring the progress of its ERM project. Communication of ERM objectives and how ERM will affect change and continuous improvement within the organization is critical to the buy-in of all stakeholders and success of the program.

It is important to communicate the bounds defined by the Board and senior management within which operational management can safely operate to best achieve their objectives.

The implementation of an ERM process calls for a change in the way risk is perceived and managed and as such, presents all the same challenges as any other organizational change initiative.

Some key factors that should be kept in mind to help ensure an effective ERM implementation from a cultural perspective include:

- start simply – keep it understandable and work to improve it over time;
- identify an ERM "champion" to monitor progress and address any challenges;

- have complete commitment from senior management and the board (tone from the top) - whole hearted support is required for a successful implementation;
- develop understanding among risk owners and ensure that clear accountabilities are assigned to those who are managing risk(s);
- communicate to all stakeholders on a regular basis regarding status and mitigation plans, and ensure that a system of regular follow up is in place; and
- encourage cross-functional identification of risks and avoid "silos".

The ERM Process

Risk Categories

The main risk categories and sub-categories or significant risks should be identified. Table 1 below outlines sample risk categories that are fairly typical in most credit unions which can be expanded or modified as deemed appropriate.

TABLE 1: Sample ERM Risk Categories and Significant Risks

Risk Category	Sub Category/Significant Risks
Strategic Risk	• Strategy Development and Implementation • Competition • Performance and Viability • Depositor Demographics • Economic/External Risk
Credit Risk	• Default Risk • Concentration Risk
Financial Risk	• Market/Investment Risk • Structural Risk (Asset/Liability Mismatch Risk) • Liquidity and Funding Management • Capital Management
Operational Risk	• Fiduciary Risk • Information Technology Risk • Outsourcing • Fraud • Depositor Satisfaction • Personnel
Compliance Risk	• Regulatory (CU/CP Act) • Other Legislative Requirements

Risk Appetite and Risk Tolerances

Senior management works in partnership with the Board of the credit union to define what risk tolerances should be for particular risk categories based on the credit union's overall risk appetite. Sample risk appetite definitions are summarized in Table 2.

TABLE 2: Sample Risk Appetite Definitions

Appetite Level	Risk Appetite Descriptor	Definition
1	Avoid	Not willing to accept risks in most circumstances
2	Modest	Willing to accept some risks in certain circumstances
3	Moderate	Willing to accept risks
4	Aggressive	Willing to accept opportunities having high inherent risk

There is an important link between a credit union's strategies or goals and its risk appetite; a credit union's goals must align with its risk appetite. The more aggressive a credit union's goals are, the higher its appetite to take/accept risk. Conversely, if a credit union is highly risk adverse, its goals will be more conservative. Positive experiences and/or effectiveness in managing certain risks will increase a credit union's willingness to accept more risk related to those experiences. High concentrations of risk in a particular area may reduce the credit union's willingness to accept further risk in the same area.

Capital availability, technological sophistication and employee competencies are also major factors that affect risk appetite and tolerances. A credit union may establish its aggregate risk appetite as "modest" and confirm that it is willing to accept some risks in certain circumstances. At the same time, it may establish different risk tolerance levels for individual risk categories or sub-categories, either higher or lower depending on a number of factors such as the level of control over the risk, the impact of the risk, or its experience and expertise in managing the risk.

Risk Identification

The identification of risks or events that could go wrong requires the ability to picture situations which could result in losses or not achieving the organization's goals. This process depends on the experiences and imagination of the participants in the risk identification process. There are a variety of methods for identifying risks, each with its own advantages and/or disadvantages, including:

- Interviews with individuals
- Facilitated group discussion workshops
- Document Review
- Surveys or Questionnaires

- SWOT[1] Analysis
- Flowcharting

The risk identification process provides the basis for a “risk inventory” or listing of significant risks and helps develop a full understanding of the risk profile of the credit union.

Risk Recording

Templates for risk data collection and analysis ensures that the information being collected is appropriate, complete and in a standardized format that will facilitate a holistic examination of risks across the enterprise. Table 3 provides a template that outlines sample risk categories and sub-categories, potential risks within those categories and risk tolerances.

TABLE 3: Sample risk tolerances for identified significant risk areas

	Risk Category	Sub-Category	Risk Element	Risk Tolerance
Risk 1	Credit	Commercial Loans	Borrower default	Modest
Risk 2	Credit	Commercial Loans	Concentration Risk	Low
Risk 3	Credit	Retail Loans	Borrower default	Modest
Risk 4	Operational	Technology	System Outage	Low
Risk 5	Strategic	Depositor Demographics	Loss of Market Share	Modest
Risk 6	Operational	Personnel	Qualified Staff	Low

In Table 3 above, the risk tolerance for Risk #2 is low. In other words, the credit union has little desire to accept any material concentration risk in a particular industry segment.

For Risk #1, the credit union has a slightly higher risk tolerance with respect to borrower default for commercial loans. This may be due to much higher returns, lower loss experience, management expertise and generally higher quality of security.

For Risk #4, the credit union is unwilling to have a significant system outage due to the potential higher impact on its depositors and based on past experience.

For Risk #6, lack of experienced staff is seen as a major threat to planned growth.

Risk Measurement

The analysis of risks requires establishing the likelihood of events occurring and the impact from such events. The severity or magnitude of a risk event is the product of the likelihood and impact of the risk event occurring.

[1] Strengths, Weaknesses, Opportunities, Threats

In its ERM program management should identify an appropriate risk measurement structure. The following examples are based on a scoring system. An alternative less structured approach could determine the severity of risk by comparing the probability of its likelihood and its potential impact without scores.

In either approach, it is suggested that an even number of measurement levels be used to ensure that those assessing the risks are not able to always pick the "middle of the road" option, which is often more likely when using an odd number of scoring levels.

Likelihood is defined as the probability of the risk event actually occurring.

Considerations that may have a bearing on the level of likelihood are the number or frequency of transactions over a period of time and the nature (complexity) of transactions. The "likelihood" score will usually increase where there are a larger number of transactions or more complex transactions, and where a risk event is likely to occur sooner rather than later.

Table 4 provides an example of possible likelihood scores using a 6-level scale. These thresholds outlined could be set higher or lower by the credit union as appropriate, depending on past experiences or future expectations.

TABLE 4: Sample Likelihood Scores

Likelihood Score	Descriptor	Probability of occurrence
1	Improbable/Remote	< 5% in one year or once in 20 years
2	Unlikely/Might happen	5% to 20% in one year or once in 15-20 years
3	Possible	20% to 40% in one year or once in 10-15 years
4	Good Chance	40% to 50% in one year or once in every 5 years
5	Probable/Likely	50% to 80% in one year or once in every 5 years
6	Definitely/Certain	> 80% in one year or once every 1-2 years

Impact describes the consequences of the risk occurring.

Table 5 below provides a sample of quantitative and qualitative measures that might be used to define various impact scores. The measures for each score and range of outcomes will need to be established by the credit union's management and reflect the established aggregate risk appetite. Impacts could be based on either qualitative or quantitative criteria, or both.

TABLE 5: Sample Impact Scores

Impact Score	Descriptor	Quantitative Impact	Qualitative Impact
1	Minimal or Insignificant	• $ or % of dollar loss • No depositors lost • Insignificant impact on capital	• No loss to reputation • Negligible effect on depositors • No regulatory consequences • No service disruption
2	Slight or Minor	• $$ or % of dollar loss • $$ or % revenue loss • # or % of depositors lost • Minor impact on capital	• Adverse reaction by affected depositors • Few depositors affected • Business Disruption < 1 day
3	Moderate	• $$ or % of dollar loss • $$ or % revenue loss • # or % of depositors lost • Moderate impact on capital	• Adverse reaction by depositors • Some depositors affected • Regulatory attention • Business Disruption > 1 but less than 2 days
4	High	• $$ or % of dollar loss • $$ or % revenue loss • # or % of depositors lost • Material impact on capital	• Adverse reaction in news • Many depositors affected • Regulatory warning • Business disruption 2–7 days
5	Very High	• $$ or % of dollar loss • $$ or % revenue loss • # or % of depositors lost • Major impact on capital	• Adverse reaction in news • Most depositors affected • Regulatory intervention • Business Disruption longer than 7 days
6	Severe or Catastrophic	• $$ or % of dollar loss • $$ or % revenue loss • # or % of depositors lost • Catastrophic impact on capital	• Loss of reputation • All depositors affected • Cease Operations • Cannot Recover Service

Severity is the product of the likelihood and impact that determines the magnitude of the risk under consideration.

Table 6 below provides an example of possible severity scores under a 6- point scale with a range of possible scores between 0 and 36 (i.e., 6 x 6). The range of scores should be aligned with the risk tolerance levels.

TABLE 6: Sample Severity Levels

Tolerance Level	Severity Level	Equivalent Severity Score
1	Low	< 7
2	Modest	7 to 14
3	Moderate	15 to 23
4	High	> 23

Table 7 provides a summary of severity scores with using a 6-point scale. For example, a risk with a high likelihood of occurrence (6) combined with a significant or higher level of impact (4) is identified as a high severity risk (red zone). In contrast, a risk with a high likelihood of occurrence (6) but with an insignificant level of impact (1) is identified as low severity risk (green zone).

TABLE 7: Sample Severity Matrix

LIKELIHOOD							
	6	6	12	18	24	30	36
	5	5	10	15	20	25	30
	4	4	8	12	16	20	24
	3	3	6	9	12	15	18
	2	2	4	6	8	10	12
	1	1	2	3	4	5	6
		1	2	3	4	5	6
		IMPACT					

Risk Assessment and Response

When assessing risk, consideration should be given to inherent risk and residual risk. Inherent risk is measured assuming there are no controls or mitigating strategies in place. Residual risk reflects the level of risk after consideration of the effectiveness of mitigating strategies of the credit union including policies, procedures and controls.

The risk assessment process outlined below describes two separate steps using inherent risk and residual risk to help clarify the purpose of each. In practice, credit unions may determine that "inherent" risk is fully addressed in policy, etc. and that the use of residual risk only is sufficient for their purposes.

Inherent Risk

When determining the likelihood, impact and severity of an identified risk, it is first measured at its inherent level. That is, assuming that there are no controls in place. This inherent severity measure is compared to its risk tolerance level. If the inherent severity is less than its risk tolerance level no further action is necessary. If, the inherent severity is higher than its risk tolerance level, risk response and mitigation strategies should be identified. Table 8 provides examples of the assessment of inherent risk of six identified risks.

TABLE 8: Assessment of Inherent Risk for Identified Risks

					INHERENT RISK		
	Risk Category	Sub-Category	Risk Element	Risk Tolerance	Likelihood (L)	Impact (I)	Severity (LXI)
Risk 1	Credit	Commercial Loans	Borrower default		5	5	(25)
Risk 2	Credit	Commercial Loans	Concentration risk		5	4	(20)
Risk 3	Credit	Retail Loans	Borrower default		5	4	(20)
Risk 4	Operational	Technology	System outages		5	5	(25)
Risk 5	Strategic	Member demographics	Loss of Market share		5	5	(25)
Risk 6	Operational	Personnel	Attracting & maintaining qualified staff		5	5	(25)

For example, the risk tolerance for Risk #1 has been set at "Modest". This equates to a risk severity range of 7 to 14 (refer to Table 6 above). The current assessment of this risk indicates that the likelihood of borrower default is "probable" (5) and the impact of loss from this event occurring is very high (5). Therefore, the inherent severity or magnitude of Risk #1 is 25 (Likelihood x Impact) or "High" and above its established "modest" risk tolerance level.

Risk Response

Risk responses would be identified if the inherent severity level is higher than the established risk tolerance level. The controls that are needed to reduce the likelihood and/or impact of the identified risk event from occurring should be identified and documented. For example, as the inherent risk severity level for Risk #1 is higher than its risk tolerance, mitigation strategies would be should be identified (i.e. applying control techniques to reduce the risk) to bring the severity level down.

Table 9 outlines the risk response and risk response tactics for each of the identified risks. For example, management has identified the controls that are in place to reduce the likelihood and impact of borrower default on high value commercial loans including Board approved limits, prudent underwriting guidelines and employee training, Watchlist program, semi-annual loan reviews, and secondary reviews of high risk loans.

					INHERENT RISK			RESIDUAL RISK	
	Risk Category	Sub-Category	Risk Element	Risk Tolerance	Likelihood (L)	Impact (I)	Severity (LXI)	Risk Response	Risk Response Tactics
Risk 1	Credit	Commercial Loans	Borrower default		5	5	(25)	Mitigate	Board approved limited Underwriting Guidelines/Training Watchlist Program Semi-annual loan reviews Secondary reviews
Risk 2	Credit	Commercial Loans	Concentration risk		5	4	(20)	Mitigate	Board approved limits Lending procedures Secondary reviews Monitoring of results
Risk 3	Credit	Retail Loans	Borrower default		5	4	(20)	Mitigate	Board approved limits Lending procedures Secondary reviews Monitoring of results
Risk 4	Operational	Technology	System outages		5	5	(25)	Mitigate	Monitoring of systems Service level agreements Back-up & recovery procedures System testing Database mirroring Firewalls Uninterruptable Power Supply
Risk 5	Strategic	Member demographics	Loss of market share		5	5	(25)	Accept	Member surveys Product/service development Increased marketing (ratio)
Risk 6	Operational	Personnel	Attracting & maintaining qualified staff		5	5	(25)	Mitigate	Performance Evaluation program HR development & training plans Hiring criteria

Residual Risk

Residual risk is the level of risk after implementing risk response tactics or mitigating strategies. It is important to outline objective criteria to help in determining the relative strength of mitigating strategies in order to have a clear understanding of residual risk. While this is often subjective, a value or score may be included in the model to help "validate" the residual risk levels. Table 10 outlines sample response measures and related values. The strength of risk responses (and related value) should reflect actual results and their effectiveness where these differ from expected results.

TABLE 10: Sample Response Measures

Effectiveness of Risk Response	Description	Value
Strong	The credit union has a strong influence over outcomes. Board approved risk management policies have been implemented. On-going measurement and monitoring of results is conducted including regular reports to the Board.	12
High	The credit union has a strong influence over outcomes. Board approved risk management policies have been implemented although there is a range of possible results based on circumstances and external factors.	9
Moderate	The credit union has some ability to influence results through risk management practices.	6
Weak	Little or no measures can be implemented. Risk is generally outside the control or influence of the credit union. No policies have been implemented and no on-going reporting is provided.	0

Table 11 outlines the values assigned for risk response tactics and residual risk levels. For example, for Risk #1, 12 points are assigned (subtracted from the inherent risk score) where mitigating or response tactics are strong. In contrast, for Risk #5, the value of risk response tactics are considered moderate and only 6 points are assigned or subtracted. It is important to use professional judgment to "validate" the calculated residual risk levels and make appropriate qualitative modifications as necessary. Results should reflect the effectiveness of response measures and the reported residual risk levels "make sense".

TABLE 11: Risk Response and Residual Risk

	Risk Category	Sub-Category	Risk Element	Risk Tolerance	Inherent Risk	Risk Response Tactics	Value of Response Tactics	Residual Risk
Risk 1	Credit	Commercial Loans	Borrower default		(25)	Board approved limits Underwriting Guidelines/Training Watchlist Program Semi - annual loan reviews Secondary reviews	Strong (12)	(13)
Risk 2	Credit	Commercial Loans	Concentration risk		(20)	Board approved limits Lending procedures Secondary reviews Monitoring of results	High (9)	(11)
Risk 3	Credit	Retail Loans	Borrower default		(20)	Board approved limits Lending procedures Secondary reviews Monitoring of results	Strong (12)	(8)
Risk 4	Operational	Technology	System outages		(25)	Monitoring of systems Service level agreements Back-up & recovery procedures System testing Database mirroring Firewalls Uninterruptable Power Supply	Strong (12)	(13)
Risk 5	Strategic	Depositor demographics	Loss of market share		(25)	Depositor surveys Product/service development Increased marketing (radio)	Moderate (6)	(19)
Risk 6	Operational	Personnel	Attractive & maintaining qualified staff		(25)	Performance Evaluation program HR development & training plans Hiring criteria	High (9)	(16)

Where the residual severity level is lower than its established risk tolerance no further action is necessary. However, if the residual severity level is higher than its risk tolerance level, individuals responsible for managing the risk will need to identify alternative strategies and action plans to reduce the risk within the established risk tolerance level.

Risks that cannot be mitigated to acceptable levels will require Board review and approval of any exceptions. These exceptions require on-going monitoring. Risks which have a high residual severity or a residual severity above established risk levels (exceptions) must be reported to the Board.

Table 12 provides examples of a residual risk assessment and actions plans for six identified risks.

TABLE 12: Residual Risk and Actions Plans

	Risk Category	Sub-Category	Risk Element	Risk Tolerance	Inherent Risk	Residual Risk	Further Action Required & Plan	Responsibility	Status
Risk 1	Credit	Commercial Loans	Borrower default		(25)		No further action required – risk is within tolerance	VP Lending	N/A
Risk 2	Credit	Commercial Loans	Concentration risk		(20)	(11)	1) Additional training & communication of restrictions & limitations regarding concentration limits. 2) Improved independent monitoring of concentration limits	VP Lending	Underway Target completion XX
Risk 3	Credit	Retail Loans	Borrower default		(20)	(8)	No further action required - risk is within tolerance	VP Lending	N/A
Risk 4	Operational	Technology	System outages		(25)	(13)	No further action required - risk is within tolerance	VP IT	N/A
Risk 5	Strategic	Member demographics	Loss of market-share		(25)	(19)	Board approval for acceptance of risk	VP Marketing	Monitor
Risk 6	Operational	Personnel	Attracting & maintaining qualified staff		(25)	(16)	Board approval for acceptance of risk	VP Human Resources	Monitor

As noted in Table 12 above, management has considered the effect of controls over the likelihood and impact on the occurrence of borrower default risk (Risk #1) and compared these to actual results. The results of this assessment confirm that residual risk should be lower based on strong response tactics and reduced likelihood of default. With the residual severity of 13, this risk is now considered "Modest" and within the established risk tolerance level. Additional mitigation strategies are deemed not to be required. In contrast, Risk #2 is still above the established risk tolerance level even with consideration of strong risk response tactics. To reduce the risk further, management has identified additional actions necessary to reduce the risk further.

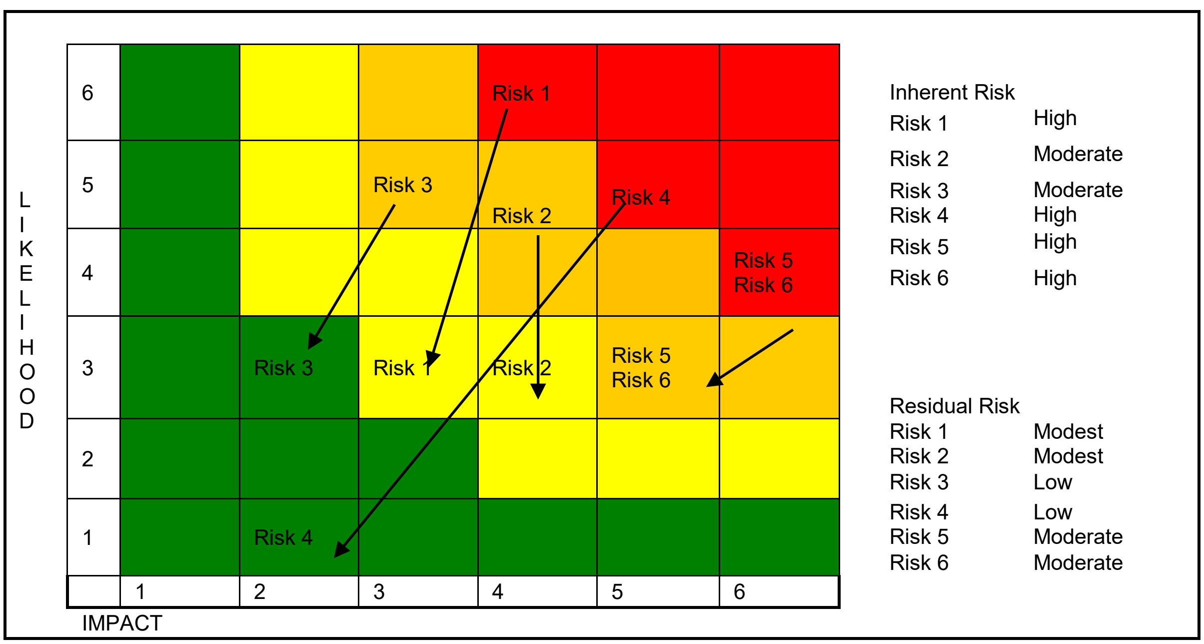
A complete sample risk assessment matrix and completion guide is provided in Appendix A.

Taking Action on Residual Risks

When deciding which risks to address first management can map the risks on a "Risk Map" or "Heat Map". This provides a graphical representation of risks on a grid in relation to each other. For comparative purposes, a "heat map" can be developed for "inherent" and "residual" risk severity levels.

For ease of reference, where there are a number of risk items, separate heat maps for inherent and residual risks may be preferable. These will help maintain awareness of high "inherent" risk activities and also highlight those risks with high "residual risk" close to or above established risk levels. Table 13 outlines a sample heat map with both the inherent and residual risks indicated.

TABLE 13: Sample Heat Map for Identified Risks



For example, Table 13 provides a summary of inherent and residual risk associated with each of the identified risks. It is important to address the highest risks first (Risks #1, #4, #5 and #6).

Once the risk response tactics are confirmed, the residual risks are all moderate or lower except for three risks (#2, #5, and #6) which are still above their respective risk tolerance levels and will need to be closely monitored along with the status of any actions required.

Monitoring

On-going monitoring of significant risks is important to ensure that risks are actively managed. This reduces surprises and ensures timely action is taken, where appropriate, to reduce risk to acceptable levels. To effectively monitor risks, the credit union should develop metrics that act as early warning signals for any change in the status (increasing or decreasing risk levels) of identified risks. These metrics are commonly referred to as key risk indicators (KRIs).

Many credit unions already use KRIs to monitor significant risks. Defining and articulating risk tolerances for key risk indicators throughout the credit union will help in the assessment of new risks, opportunities and existing business activities. Table 14 provides examples of risk tolerance levels for key risks and the related key risk indicators. Risk levels can be used as to measure or validate residual risk and/or as “early warning signs” to indicate potential changes in risk exposure.

Table 14: Risk Category, Key Risk Indicators and Tolerance Levels

Risk Category	Key Risk Indicator	Risk Tolerance Level			
Credit Risk (OWNER: VP Commercial Lending)	Commercial Delinquency	< 0.8 %	> 0.8% to < 1.0%	> 1.0% to < 1.5%	> 1.5%
	Commercial Watchlist	$20M	> $20M to < $30M	> $30M to < $50M	> $50M
	Commercial Loan Write-offs	< $50K	>$50K to <$75K	>$75K to <$100K	> $100K
	Concentration Limits	Within policy limits	n/a	n/a	Exceeds policy limits
	Retail Delinquency	< 0.5%	> 0.5% to < 0.7%	> 0.7% to < 0.9%	> 0.9%
	Retail Loan Write-offs	< $50K	>$50K to <$75K	>$75K to <$100K	> $100K
Operational (OWNER: VP IT)	System Availability	> 99%	between 97% and 99%	between 95% & 97%	< 95%
Competition (OWNER:	Market share	>5%	< 5% & > 4.5%	< 4.5 % & > 4%	< 4%

Risk Category	Key Risk Indicator	Risk Tolerance Level			
VP Marketing)	Membership Growth	>10%	between 5% & 10%	between 0% & 5%	< 0%

It is also helpful to "quantify" the aggregate exposure of significant risks (or specified sub set of risks) in terms of potential impact on capital. While this is often subjective and may be difficult to determine, it does help indicate any material change in risk levels from one period to another and could identify potential risks that may not otherwise be fully noted. It also helps to confirm that the level of aggregate risk exposure is within the established risk appetite of the credit union.

Reporting

At a minimum, ERM Risk Reports should:

- summarize the nature and magnitude of significant risks;
- highlight all significant risks and those risks that exceed their acceptable risk levels;
- identify the timeframe and status of any additional risk management activities that may be required to bring risks within approved risk levels;
- identify any negative trends of higher risk areas and any changes to risk management activities;
- highlight any new risks including their risk assessment, risk response and management activities;
- identify any emerging risks; and
- summarize any exceptions to management's established policies or limits for key risks.

A sample ERM Report outline is provided in Appendix B.

It may be helpful to provide the Board with additional reports to improve their understanding of the ERM process and the risks identified through this process.

These may include:

1. Periodic overview of management's methodologies used to identify, prioritize and measure risks;
2. Summary of significant gaps in capabilities for managing key risks and the status of initiatives to address those gaps;
3. Trends in key risk indicators;
4. Report on effectiveness of responses for mitigating the significant risks;

5. Summary of significant changes in the assumptions and inherent risks underlying the strategy and their effect on the business; and
6. Scenario analyses evaluating the impact of changes in key external and/or internal variables impacting the organization.

APPENDIX A: SAMPLE RISK ASSESSMENT TEMPLATE

					INHERENT RISK			RESIDUAL RISK						
	Risk Category	Sub-Category	Risk Element	Risk Tolerance	Likelihood (L)	Impact (I)	Severity (LXI)	Risk Response	Risk Response Tactics	Value of response tactics	Residual Risk	Further Action Required & Plan	Responsibility	Status
Risk 1	Credit	Commercial Loans	Borrower default		5	5	(25)	Mitigate	Board approved limits Underwriting Guidelines/Training Watchlist Program Semi - annual loan reviews Secondary reviews	Strong (12)	(13)	No further action required - risk is within tolerance	VP Lending	N/A
Risk 2	Credit	Commercial Loans	Concentration risk		5	4	(20)	Mitigate	Board approved limits Lending procedures Secondary reviews Monitoring of results	High (9)	(11)	1) Additional training & communication of restrictions & limitations regarding concentration limits. 2) Improved independent monitoring of concentration limits.	VP Lending	Underway Target completion XX
Risk 3	Credit	Retail Loans	Borrower default		5	4	(20)	Mitigate	Board approved limits Lending procedures Secondary reviews Monitoring of results	Strong (12)	(8)	No further action required - risk is within tolerance	VP Lending	N/A
Risk 4	Operational	Technology	System outages		5	5	(25)	Mitigate	Monitoring of systems Service level agreements Back-up & recovery procedures System testing Database mirroring Firewalls Uninterruptable Power Supply	Strong (12)	(13)	No further action required - risk is within tolerance	VP IT	N/A
Risk 5	Strategic	Depositor Demographics	Loss of market-share		5	5	(25)	Accept	Depositor surveys Product/service development Increased marketing (radio)	Moderate (6)	(19)	Board approval for acceptance of risk	VP Marketing	Monitor
Risk 6	Operational	Personnel	Attracting & maintaining qualified staff		5	5	(25)	Mitigate	Performance Evaluation program HR development & training plans Hiring criteria	High (9)	(16)	Board approval for acceptance of risk	VP Human Resources	Monitor

STEPS:

1. Identify Risk Category & sub-category
2. Identify the Risk element to be assessed
3. Assess the risk element with respect to the inherent risk of the event occurring, identifying the likelihood of the event occurring and impact if it did occur
   a. If Inherent Severity is less than Risk Tolerance then, no further action is necessary except for continued monitoring.
   b. If Inherent Severity is more than Risk Tolerance then, document mitigating activities and reassess the Residual Risk.
4. Assess the risk element with respect to the residual risk of the event occurring after considering the effectiveness of the controls in place by assigning a value to the response tactics in place (12= strong control; 9 = high control; 6 = moderate control; 0 = weak or no control)
   a. If Residual Risk is less than Risk Tolerance, then no further action is necessary except for on-going monitoring.
   b. If Residual Risk is less than Risk Tolerance, then no further action is necessary except for on-going monitoring.
   c. If Residual Risk is more than Risk Tolerance, then develop an action plan to reduce Residual Risk to within Risk Tolerance levels and monitor progress to resolution.
5. Assign responsibility for the action plan from step 4c
6. Identify Key Risk Indicators & tolerance levels for each significant risk.
7. Obtain KRI results for the period in question.
8. Report results to the Board. Obtain approval for any exceptions from risk tolerance levels from the Board.

APPENDIX B: SAMPLE ERM REPORT OUTLINE

ENTERPRISE RISK MANAGEMENT REPORT

INTRODUCTION

This document is meant as a reporting and monitoring tool to provide Management and the Audit Committee with appropriate risk information to support business and policy decisions. It will discuss the principal risks currently facing the organization and related actions undertaken in order to reduce the exposures within acceptable levels. Also included is a discussion on emerging issues of which management and the Board should monitor.

It is imperative that all risk management processes, decisions and actions be aligned to the overall strategy of the credit union. The strategic direction set by the credit union in <*insert date*>, defines our strategic areas of focus as:

- ✓ <insert area of focus>
- ✓ <insert area of focus>
- ✓ <insert area of focus>
- ✓ <insert area of focus>

This report is produced on a quarterly basis for Senior Management, and the Audit Committee.

SECTION 1: CURRENT RISKS & STATUS OF MITIGATION ACTIVITIES

This section provides the results of Management's assessment of the significant risks currently facing the organization. In essence, it covers the primary uncertainties that might prevent the achievement of business objectives and overall strategy if not sufficiently mitigated.

From the results of the most recent corporate risk assessment and validation discussions by Management, risk elements were deemed important and rated as needing monitoring. These risks are followed up and reviewed quarterly by the Senior Management Team, with mitigating actions taken to assist in reducing these exposures.

The credit union's significant residual risks and related mitigating actions are summarized below.

Risk	Risk Level	Owner	Action Plan	Status of action plan
2. Commercial Loans – concentration risk		VP Lending	Additional training and testing of knowledge Additional communication & reporting of monitoring results to lending staff & management	In progress, 3 sessions held, testing to follow In progress & On-going – communication of monitoring results are done weekly to inform staff of what the limits are and the current concentrations.
5. Depositor demographics – loss of market share		VP Marketing	Board approval for acceptance of risk	Completed. On-going monitoring of situation & action in the event of further deterioration.
6. Personnel – attracting & maintaining qualified staff.		VP HR	Board approval for acceptance of risk	Completed. On-going monitoring of situation. Adjust training and personnel issues as required.

SECTION 2: EMERGING RISKS

Management continually identifies emerging issues that could have an impact on the credit union in the future. Emerging risks are those that may not be considered significant at this present time however, they show signs of becoming so in the near future. These emerging risks have been identified by management and confirmed to still be of concern during the quarterly risk assessment review.

Risk Category	Emerging Issues	Threat/ Opportunity	Risk Trend *
Systematic	Upcoming election may stall economic recovery, negatively impact the commercial real estate market	Threat	↑
Systematic	New legislation allowing for federal credit unions providing new markets for expansion	Opportunity	↓

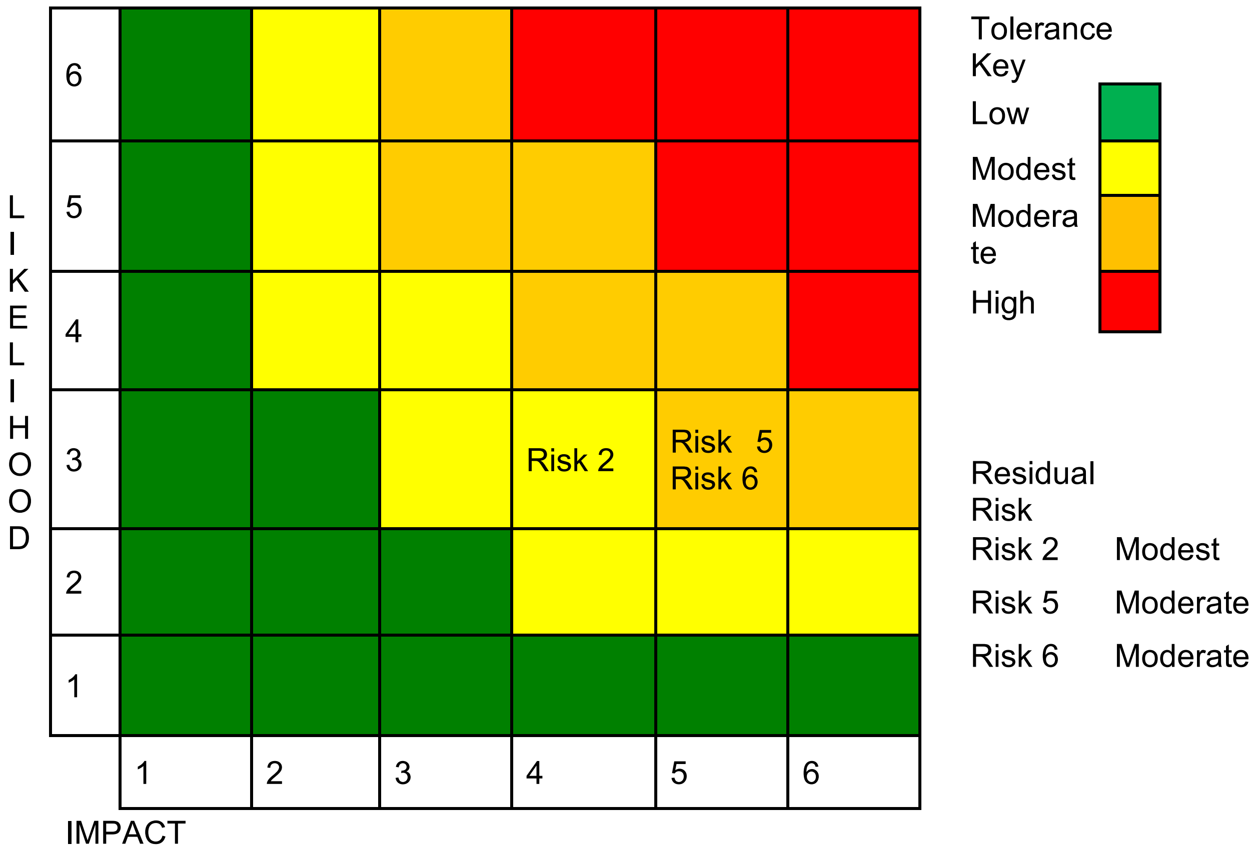
* Risk Trend – trend in apparent exposure to becoming a high risk for the credit union over the next 12 months.

(≈ means no change; ↑ means increasing exposure; ↓ means decreasing exposure)

APPENDICES:

A: CURRENT RESIDUAL RISK HEAT MAP

The following is a summary of those risks that are above established risk tolerances.



APPENDICES:

B: ALL SIGNIFICANT RISKS

	Risk Category	Sub-Category	Risk Element	Risk Tolerance	Residual Risk
Risk 1	Credit	Commercial Loans	Borrower default		(13)
Risk 2	Credit	Commercial Loans	Concentration risk		(11)
Risk 3	Credit	Retail Loans	Borrower default		(8)
Risk 4	Operational	Technology	System outages		(13)
Risk 5	Strategic	Depositor demograhics	Loss of market share		(19)
Risk 6	Operational	Personnel	Attracting & maintaining qualified staff		(16)