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Société ontarienne
d'assurance-dépôts

Guidance Note:

Liquidity

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Ce document est aussi disponible en français.

Applicability

The Guidance Note: Liquidity is for use by all credit unions. It outlines the minimum expectations for the management of liquidity within a credit union. It sets out the criteria DICO will use when evaluating the effectiveness of liquidity management practices.

The Guidance Note also provides an explanation of the fundamental concepts that form the basis of the responsibilities of the credit union, its management and board in implementing effective liquidity policies and risk management practices to ensure the continued viability of the credit union in the best interest of its depositors and shareholders.

This Guidance Note complements the information provided in, and should be read in conjunction with, other DICO guidance notes and supporting publications available on DICO's website (www.dico.com) which include:

- DICO By-laws
- Guidance Notes
- Application Guides
- Handbooks
- Checklists
- Manuals
- Webinars
- Advisories
- Other additional tools

Throughout this document, the term "credit union" also refers to "caisse populaire" and "league".

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Introduction

Liquidity is the ability of a credit union to generate or obtain sufficient cash or its equivalents in a timely manner at a reasonable price to meet its commitments as they fall due. Liquidity risk arises from a credit union's potential inability to meet both expected and unexpected current and future cash flow and collateral needs without affecting daily operations or its financial condition. A credit union's obligations, and the funding sources used to meet them, depend significantly on its business mix, balance sheet structure, and the cash flow profiles of its on- and off-balance obligations. These include funding mismatches, market constraints on the ability to convert assets into cash or in accessing sources of funds, and contingent liquidity events, such as finding additional funds for undrawn loan commitments or replacing maturing liabilities.

A liquidity management framework should include:

- a governance structure and Board-approved liquidity risk tolerance that is reflected in liquidity and funding policies, business strategies, reporting frameworks, and risk management and control functions;
- a liquidity management philosophy which sets out broad liquidity goals and objectives of the credit union;
- a liquidity policy that sets out all key elements of liquidity management, including targets, limits and diversification of funding sources;
- ongoing measurement, management and monitoring of assets held for liquidity purposes and funding requirements;
- liquidity testing metrics including analysis of changes to funding requirements under alternative scenarios; and
- a liquidity contingency plan to address liquidity requirements in stressed situations.

At a minimum, credit unions should:

- maintain a liquidity risk management framework and controls to identify, measure, manage and monitor liquidity risk exposures under normal conditions;
- maintain structurally sound funding plans; and
- develop potential scenarios that stress liquidity levels and ensure liquidity sources and contingency funding plans continue to be adequate to meet highly unlikely but plausible scenarios.

The framework should reflect the nature, scope, complexity and risk profile of the credit union and its liquidity risk exposures.

In accordance with the provisions set out in section 85 of the *Credit Unions and Caisses Populaires Act*, 1994 (the Act), DICO may order a credit union to amend its liquidity policies if they are considered inadequate or imprudent and considers it

necessary to protect the interests of members, shareholders and depositors or to ensure the financial security and integrity of the credit union.

Under section 86 of the Act, DICO may order a credit union to provide additional liquidity and in such forms and amounts as it may require where DICO has obtained satisfactory evidence that one or more of the following criteria have been met:

- material non-compliance with the capital and liquidity requirements of By-law #5 and any guidelines or directives issued by DICO;
- an abnormal event has occurred that may trigger, for example, demand for deposits, non-payment of loans etc.;
- significant concentration risk in the loan portfolio or composition of deposits;
- low or declining levels of liquidity that may not adequately meet cash flow requirements;
- excessive borrowings, or insufficient borrowing capacity to meet business needs;
- plant closure or other significant economic event;
- high risk loans or investments identified during an examination;
- capital or liquidity insufficient to meet business risks that may not be fully captured under the risk weighted capital test (BIS); and
- any other situations which in the opinion of DICO may have an adverse effect on liquidity.

Governance and Liquidity Risk Tolerance

The Board is ultimately responsible for setting the risk tolerance for liquidity risk and ensuring that it is effectively communicated so management understands the credit union's approach to managing the trade-offs between the risks taken and the potential benefits.

In addition, the Board should ensure that it:

- understands the nature of the credit union's liquidity risk and reviews the information necessary to maintain this understanding at least annually;
- establishes lines of authority and responsibility for managing the credit union's liquidity risk;
- effectively oversees management in the identification, measurement, monitoring and control of liquidity risk in accordance with its liquidity risk tolerance policy;
- understands and periodically reviews the credit union's plans and strategies for dealing with adverse liquidity events and potential stress situations; and
- understands the liquidity risk profiles of key subsidiaries, as appropriate.

Liquidity Management Philosophy

Adopting a liquidity management philosophy is an important first step in drafting liquidity policy. The philosophy sets out the broad goals and objectives of the credit union with regards to liquidity, as established by the Board. This philosophy governs all liquidity policy constraints and helps address new situations where policy does not yet exist.

While goals and objectives will differ depending upon the business model and operating environment of the credit union, important principles of liquidity management should always address the following key issues:

- ensuring enough liquidity to guarantee the orderly funding of members' needs, operational expenses and all other obligations of the credit union; and
- providing a prudent cushion for unforeseen liquidity needs; and achieving an appropriate balance between investment security, liquidity and yield.

Liquidity Policy

Credit unions should establish and implement documented, sound and prudent liquidity and funding policies recommended by senior management that are, approved and reviewed at least annually by the Board. Liquidity policies should articulate the importance senior management places on liquidity and the credit union's liquidity goals and funding needs.

The choice of analytical tools and the level of sophistication of information systems should be commensurate with the size and risk profile of the credit union, the range and stability of its funding sources and the extent to which external funding is needed to meet lending needs.

To be considered prudent, the liquidity policy will address:

- identification of potential risks that could impact liquidity and ensuring all cash outflow commitments (on- and off-balance sheet) are honoured on a daily basis by performing match and funds flow analysis;
- limits, targets and diversification of acceptable funding and borrowing sources both on and off-balance sheet;
- target levels in aggregate and by type of high quality, unencumbered assets that are designated as held for liquidity purposes consistent with the credit union's risk tolerance;
- liquidity management contingency plans;
- maturity matching and/or hedging of large deposits;
- processes for determining, reviewing, approving and applying liquidity stress testing scenarios and related assumptions; and
- frequency, form and content of Board reporting.

In assessing a credit union's implementation of these business practices, attention will be paid to the content and frequency of reports by management and the internal audit review of compliance with Board-approved policies and controls.

General Policy Guidelines

Minimum operating liquidity levels should be established that provide a reasonable cushion to meet cash needs, even during periods of market volatility or stress and seasonal fluctuations. A target range for liquidity should be established to reflect the fact that too much liquidity has a negative effect on earnings. The target range for operating liquidity should also reflect expected operating needs based on analysis of at least two previous years' fluctuations, expected increases/decreases in loan demand, income requirements for the year, and any other known factors which may affect available liquidity.

Liquidity should be managed in a prudent manner and in full accordance with the requirements in policy. If variances from policy arise it is incumbent on management to put in place timely measures to correct the variance, including invoking the contingency funding plan as necessary, and to report such actions to the Board. In circumstances where the contingency funding plan proves to be inadequate during a liquidity event, policy should include a requirement for notifying the Regulator.

DICO recognizes that credit unions both take deposits from and lend money to its members. Credit unions should focus on developing stable funding techniques and avoid reliance on short-term funding or any single form of funding that may not be reliable during time of stress or market disruptions.

Credit unions should establish limits to ensure that:

- Deposit liabilities are not to be unduly concentrated with respect to the:
 - individual person and connected persons;
 - type of deposit instrument;
 - term to maturity; and
 - market source of funds, if applicable.
- Borrowings and other funding sources are not to be unduly concentrated with respect to the:
 - source and type of obligation/funding source; and
 - term to maturity.

When setting liquidity target and limit ratios, and assessing liquidity adequacy in accordance with this guidance note, each credit union should consider all sources and types of funding including obligations related to on- and off-balance sheet securitizations in any form (residential, commercial, asset backed, leases etc.). For the purposes of calculating DICO's standard liquidity ratio for regulatory reporting purposes, all obligations that mature or become due within the next twelve months should be included in the denominator.

Adequate measuring, monitoring and reporting on the credit union's liquidity risk levels and exposures should be maintained. It is recommended that liquidity needs should be reviewed no less frequently than monthly¹.

This review should encompass a detailed forecast of imminent liquidity requirements and a broad projection of cash needs for the next three-month period. The use of liquidity management tools should be outlined in the liquidity policy. When liquidity declines below the mid-point of the target range set by the credit union in their liquidity policy, the frequency of the reviews should increase.

Summary analysis of the various measurements of liquidity should be prepared for Board review at each Board meeting.

Annual Business Plan

The following information should be included as part of the annual business plan:

- a) Projected volume of operational liquidity, excess liquidity, seasonal liquidity increments, liquidity borrowings and average yield on liquid assets. This information can be combined with the monthly projections developed for asset/liability management planning. The plan will include narrative on actions and strategies designed to meet budget expectations.
- b) Estimates of the dollar volume and ratios of operating and excess liquidity. The projections of the plan will be made at least monthly basis. This information can be combined with the asset/liability management projections in the annual business plan.

Measuring, Managing and Monitoring Liquidity

A sound framework for identifying, measuring, managing and monitoring sources and uses of liquidity and the commensurate risk should have several dimensions including:

- a comprehensive liquidity measurement program that is integrated within the liquidity management strategy and contingency funding plan of the credit union. Components of such a program should include the combination of:
 - a process for accurately measuring and reporting pro-forma funding requirements through the projection of contractual and contingent cash flows;
 - maintenance of a stock of high-quality unencumbered liquid assets that can be converted under stress conditions into cash without incurring undue losses;
- a contingency funding plan that addresses liquidity stress testing outcomes;
- processes for:
 - internal limit setting and monitoring and reporting controls consistent with the credit union's risk tolerance;

¹ Larger credit unions should consider more frequent monitoring as appropriate.

- measuring business performance and maintaining proper incentives for individual business lines to ensure they are assigning a liquidity cost or benefit to different business activities;
- managing access to a diversified set of funding sources and maturities;
- information system requirements and the necessary personnel with the appropriate expertise to ensure timely measuring, monitoring and reporting of liquidity positions against limits to senior management and the Board to support appropriate action and oversight.

Assets Held for Liquidity

Section 21 of the Regulation outlines the requirements for adequate liquidity for credit unions. Section 84 of the Regulations requires that the types of assets held for liquidity purposes are identified in the financial statements of credit unions.

Assets held for liquidity should consist of cash and high-quality securities for which there is a broad and active secondary market where these assets can be liquidated through their sale to a wide range of counterparties without incurring a loss that cannot be supported by current levels of capital, thereby securing their status as dependable sources of cash flow.

The purpose of these assets is to provide the credit union with time to access alternative sources of funding in the event that circumstances giving rise to a liquidity problem arise. For the purposes of liquidity management, cash can only be included in the assets held for liquidity when the currency is in the possession of, owned by and under the direct control of the credit union. Examples include cash in the form of Bank of Canada currency in the credit union's care custody and control (e.g. vault, teller's drawers or ATMs owned and operated by the credit union).

When determining which assets can be included in assets held for liquidity, the credit union's policies should also consider the existence of impediments that would prevent a quick sale to meet unanticipated net cash outflow requirements.

Under section 22 of the Regulation, an encumbered asset cannot be used to satisfy the requirements for adequate liquidity except where the asset is encumbered by a security interest in favour of the Corporation.

Assets held for liquidity may not include assets pledged to leagues and other financial institutions as security for the provision of clearing and settlement functions. When establishing the minimum targets for assets held for liquidity, a credit union should consider its overall liquidity profile including factors such as asset quality, stability of funding sources, cost and diversity of funding, short-term funding requirements.

Borrowings and Other Funding

In situations of liquidity shortages, credit unions may need to borrow funds to meet liquidity needs. When doing so, the credit union needs to be aware of regulatory limits on borrowings and on the creation of security interests. Under section 183 of the Act, a credit union may not borrow more than 50 per cent of the credit union's regulatory capital and deposits.

Under subsection 48 (3) of the Regulation, a credit union may only grant a General Security Agreement (GSA) where the debt is owed to a league, Central 1 Credit Union, La Fédération des caisses Desjardins du Québec or La Caisse centrale Desjardins du Québec, or Credit Union Central of Canada. The GSA must include a provision permitting its assignment to the DICO under the circumstances set out in s.48 (4) of the Regulation.

Under no circumstances may security be granted over assets identified as Assets Held for Liquidity.

Collateralized Borrowing

Under subsection 48(3) of the Regulations, a credit union may, under certain conditions, borrow an aggregate amount up to 15 per cent of its total assets secured by a fixed charge against identified assets.

Securitizations

DICO recognizes securitization as a valuable funding tool as part of a diversified funding strategy. DICO expects that credit unions understand the risks inherent in securitizations and ensure these risks are prudently mitigated. Credit unions should not become overly reliant on securitizations to the point where changes in future availability would have a negative impact on their liquidity or capital positions.

Credit unions may enter into a variety of securitization transactions in order to fund loans and to provide liquidity for general use. When assessing the adequacy of liquidity and liquidity governance practices, DICO expects that the Board establishes appropriate and prudent limits on the aggregate amount of each type of securitization, whether or not the balances are recorded on- or off-balance sheet under IFRS. Credit unions are expected to identify risks and implement prudent risk management practices to mitigate risk associated with their securitization programs. Credit unions should develop comprehensive liquidity plans and contingency funding plans that appropriately address the short-term and long-term liquidity risk associated with their securitization transactions. Credit unions should ensure a reasonable cushion for additional short-term emergency borrowing in times of liquidity shortfalls. In DICO's evaluation of the credit union's ability to undertake securitization transactions, DICO will evaluate, at a minimum:

- the degree to which the use of securitization is commensurate with the credit union's level of sophistication and knowledge of the risks;
- the effectiveness of policies and procedures, including limits, in place to properly manage the securitization programs;
- the Board's involvement and understanding of the credit union's securitization activities;
- the extent to which the risks of securitization are contemplated at a strategic level.

DICO's expectations of the credit union and the level of scrutiny will increase as the size and complexity of the securitization program increases.

Credit unions will be required to submit their annual funding plan to DICO at the beginning of their fiscal year. If circumstances change during the year and funding requirements deviate significantly resulting in the potential for more risk to the organization, an updated funding plan should be filed with DICO.

Asset Sales

A credit union can sell assets to third parties to raise funds in a liquidity event however, the credit union should be aware that under a liquidity event, third party buyers of assets may be unable to purchase assets.

Therefore, only asset sales which can be completed under a liquidity event should be considered as a funding source. Where 15% or more of the assets of a credit union are being sold, the transaction must be approved by DICO pursuant to section 204 of the Act.

For an asset to be considered as liquidity, credit unions should be able to historically demonstrate the ability to sell assets through actual sales on a regular basis.

The difficulties that can arise in asset sales in distressed situations, for example, lower pricing for the assets and prolonged settlement processes, should be fully factored into the contingency funding plan.

Large Deposits

Credit unions that rely on a significant number of large deposits have a higher risk of volatility in their liquidity levels than those whose deposit base consists of many smaller sized accounts. The withdrawal of large deposits due to either interest rate competition or depositors' investment discretion can significantly reduce liquidity and the credit union should consider setting limits in their liquidity policy. The policy should also require the identification and monitoring of deposits held that are over a certain size and may require a "notice period" before the withdrawal of large deposits can be made.

When defining large deposits, the credit union may want to distinguish between large institutional or wholesale deposits and large retail deposits. For the purposes of defining large deposits, all deposits by connected and related entities should be aggregated. Policy should require the appropriate maturity matching of any large deposits and would generally require higher liquidity levels based on the concentration of large less stable deposits.

Operational Procedures

Procedures should address how liquidity needs are to be monitored and how to deal with liquidity shortages or excesses.

Monitoring Liquidity Needs

Liquidity needs should be reviewed on a periodic basis, but not less frequently than monthly. This review should encompass a detailed forecast of imminent liquidity requirements.

Summary measurements and analysis of liquidity needs should be prepared for Board review at each Board meeting. To determine immediate cash flow needs, a cash flow statement can be used to develop projections for the next three months. Periodic (weekly or monthly) cash flow projections can predict whether excess or deficient liquidity levels will be experienced by the credit union in the near future.

If there is a projected shortfall, management will need to take action to correct these levels. This action plan should be presented for approval by the Board.

Funding Requirements

Analyzing funding requirements involves the construction of a maturity ladder of assets and liabilities and the calculation of a cumulative excess or shortfall of funds at selected maturity dates.

A credit union's funding requirements are determined by examining its future cash flows based on the future behaviour of assets and liabilities and off-balance sheet items including interim cash flows or settlements of financial derivatives, and then calculating the cumulative excess over the time frame for the liquidity assessment.

Assessing the funding surplus/shortfall requires consideration of, among other things:

- the amount of readily cashable assets held for liquidity relative to the surplus/shortfall;
- the size of the surplus or shortfall relative to total funding;
- the diversity of funding sources; and
- the quality of assets.

Liquidity Testing

Evaluating whether a credit union is sufficiently liquid depends greatly on the behaviour of cash flows under different conditions using a number of different approaches including sensitivity, scenario, and stress testing.

Sensitivity and scenario testing should be among the measurement techniques used by all credit unions as part of a robust contingency planning process and should include liquidity requirements for all subsidiaries.

Sensitivity testing typically involves an incremental change in a risk factor (or a limited number of risk factors). Scenario testing uses a hypothetical future state and changes in risk factors affecting a credit union's operations. This considers changes to a number of risk factors, as well as possible ripple effects and impacts that follow logically from these changes. Stress testing is a more comprehensive risk management technique used to evaluate the potential short term and longer term impacts on a credit union's financial condition from exceptional but plausible events, and to attempt to determine the impact of situations where the assumptions used in managing a business break down. Stress testing includes an assessment of all risk factors using consistent criteria and assumptions for defined stress conditions.

Scenarios tested should include, at a minimum, a credit union's "going concern" condition and an unexpected specific disruption. The going concern scenario establishes a benchmark for the "normal" behaviour of balance sheet-related cash flows in the ordinary course of business.

A liquidity disruption that remains confined to the credit union itself provides one type of "worst case" benchmark. Under each scenario, a credit union would try to include any significant swings in cash flows and funding requirements.

Liquidity testing requires a credit union to make assumptions about the probable behaviour of the timing of cash flows for each type of asset and liability under the conditions being examined.

For example, this may include developing assumptions for various funding sources and whether the liability would be:

- paid in full at maturity;
- gradually run off over the next few weeks; or
- virtually certain to be rolled over.

The uncertainties involved in making such estimates should reflect a conservative bias toward assigning later dates to cash inflows and earlier dates to cash outflows. Credit unions are expected to create at least one scenario that results in a liquidity position that requires the activation of their contingency funding plan.

Stress Testing Metrics

Credit unions with assets in excess of \$500 million are expected to develop more comprehensive liquidity testing programs that consider multiple scenarios of varying degrees of stress and time horizons as set out in the "Guidance Note: Stress Testing, Credit Unions with Assets Greater than \$500 million", published in May 2017.

The LCR, NSFR and NCCF are standardized metrics introduced by BCBS² and adopted by regulatory bodies in Canada including OSFI and credit union regulators to help measure, monitor and manage the level of liquidity at financial institutions beyond the simple liquidity ratio under minimum specified stress assumptions. Credit unions with assets in excess of \$500 million are required to adopt these metrics effective December 31, 2017 and submit their quarterly results to DICO 21 days following each fiscal quarter end. Other credit unions may wish to consider using one or more of these metrics to help supplement their own liquidity management processes as appropriate.

Additional information on the LCR, NSFR and NCCF metrics can be found in the "Guidance Note: Stress Testing, Credit Unions with Assets Greater than \$500 million", published in May 2017 and on DICO's website.

Assessing Liquidity Testing Results

The outcomes of the liquidity testing should be compared against the stated risk tolerance of the credit union; integrated into management decisions including limit

² Basel Committee on Banking Supervision

setting and internal pricing systems; and incorporated into the design of contingency funding plans, including the determination of action plans allowing for the rapid escalation of information and implementation of a coordinated response by the credit union under a stress scenario.

The extent and frequency of liquidity testing should be commensurate with the nature, scope, complexity and risk profile of the credit union and its liquidity risk exposures. Credit unions should build in the capability to increase the frequency of tests in special circumstances, such as volatile market conditions.

Liquidity testing results and any subsequent actions are to be reported to and discussed with the Board and integrated into the credit union's strategic planning process and day-to-day risk management practices. Testing results should also be a key consideration when establishing internal limits and assessing impacts on operations and other risks of the credit union as well as assessing and planning for related potential funding shortfalls in the credit union's contingency funding plan. When projected funding deficits are larger than (or projected funding surpluses are smaller than) the credit union's liquidity risk tolerance, management should consider, in consultation with the Board, whether to:

- adjust the operational plans to cope with the situation;
- adjust the credit union's liquidity position; or
- bolster the contingency funding plan.

The duration (temporary or permanent) of the funding issue will influence the steps taken to address the situation.

A critical element of a credit union's resilience to liquidity stress is the continuous availability of an adequate cushion of unencumbered, high-quality liquid assets that can be used to support a range of alternative scenarios. Credit unions must determine how much liquidity needs to be maintained (within the Board approved range), and demonstrate that their liquidity position is adequate. The size of the liquidity cushion is expected to be aligned with the risk tolerance and risk profile of the credit union.

Credit unions should ensure that its cushion of liquid assets is sized to maintain sufficient resilience to unexpected stress while it continues to meet daily payment and settlement obligations on a timely basis during the period of stress. Credit unions should hold a core of the most liquid assets, such as cash and government securities, to protect against the most severe of stress scenarios.

To protect against less intense, but longer duration stress events, the composition of the liquidity cushion may be widened to hold other unencumbered liquid assets that are marketable without resulting in excessive losses or discounts. The marketability of individual assets may differ depending on the stress scenario and timeframe involved. Credit unions should not assume that a liquid market will exist for assets held during stress scenarios because a market exists in normal times.

Managing Market Access

For credit unions that participate in the financial markets, the funding strategy should provide effective diversification in the sources and duration of funding.

It should ensure an ongoing presence in its funding markets and strong relationships with funds providers are maintained to promote effective diversification of funding sources.

A credit union should regularly gauge its capacity to raise funds quickly from each source. It should identify the main factors that affect its ability to raise funds and monitor those factors closely to ensure estimates of fund raising capacity remain valid.

As a check for adequate diversification of liabilities, a credit union needs to examine the level of reliance on individual funding sources by instrument type, etc. and set internal limits on the maximum amount of funds it will accept in the normal course from any one counterparty or any one funding market (e.g., deposit brokers, securitization or commercial paper) that is approved and monitored by the Board.

Developing markets for asset sales or exploring arrangements under which a credit union can borrow against assets is an important element of managing market access. The frequency of use of some asset-sales markets and the size and scale of the use of this funding is a possible indicator of a credit union's ability to execute sales under adverse scenarios.

Contingency Funding Planning

DICO expects all credit unions to develop a formal contingency funding plan (CFP) that clearly sets out the strategies for addressing liquidity shortfalls. A contingency funding plan is a compilation of policies, procedures and action plans for responding to severe disruptions to a credit union's ability to fund some or all of its activities in a timely manner and at a reasonable cost. A credit union's ability to withstand a liquidity funding disruption may also depend on the calibre of its contingency funding plans.

A CFP should outline policies to manage a range of stress situations, establish clear lines of responsibility, include clear invocation and escalation procedures and be regularly tested and updated to ensure that it is operationally robust. The CFP should be reviewed quarterly and changes made to ensure that it properly addresses any and all risks to the credit union's liquidity as the result of their liquidity forecasting models.

Effective contingency funding plans consist of several components, including:

- a set of early warning indicators designed with the aid of liquidity testing results that identify the emergence of increased risk or vulnerabilities to a credit union's liquidity position or potential funding needs and, if necessary, initialize the application of the CFP;
- specific procedures to ensure timely and uninterrupted information flows to senior management; clear division of responsibility within management in a crisis;
- action plans for altering asset and liability behaviours (e.g., market assets more aggressively, sell assets intended to hold, raise interest rates on deposits);
- an indication of the priority of alternative sources of funds (e.g., designating primary and secondary sources of liquidity);
- closer, more frequent monitoring of the effectiveness of action plans; and

- plans and procedures for dealing with media inquiries, notifying the Regulator and informing credit union depositors, as necessary.

Contingency funding plans should also include procedures for making up cash flow shortfalls in emergency situations. Credit unions have several sources of such funds available to them, including unused credit facilities. The plan should spell out, as clearly as possible, the sources and amount of funds the credit union expects to have available from each source.

The development and ongoing maintenance of CFPs should be integrated within the credit union's program for testing liquidity risk. In other words, potential action plans outlining the process for the escalation of the CFP can come from the output of liquidity testing scenarios and, further, if a scenario is designed where the CFP would need to be invoked, then assumptions should reflect this.

CFPs are expected to be reviewed, tested and updated regularly (at least quarterly) to ensure effectiveness and operational feasibility, with the results of such tests reported to senior management regularly and to the Board as required.

Internal Controls and Incentives

Credit unions should have information systems in place that allow senior management and the Board to:

- review compliance with established liquidity risk management policies;
- control liquidity risk exposure; and
- evaluate risk tolerance through the use of limits, funding targets and early warning indicators.

The limit setting and compliance framework(s) should be calibrated to the results of the credit union's liquidity testing programs with the goal of being able to continue as a going-concern. Limits should be operationally effective and appropriately calibrated in accordance with the credit union's stated liquidity risk tolerance (i.e., not set so high that they are never triggered).

Clearly articulated and documented policies should describe procedures for:

- dealing with limit exceptions, permissions or authorization to set and change limits;
- notification responsibilities and escalation procedures;
- sign-off by senior management and/or the Board; and
- remedial follow up.

In order to ensure the integrity of information reporting, credit unions should establish a framework whereby monitoring of performance against limits is conducted by parties that are operationally independent of funding areas and other business units. Such personnel should be trained and have the information system capabilities to monitor whether liquidity risk remains within the bounds set by senior management and the Board. This framework is expected to be reviewed regularly as part of the general internal audit process.

For purposes of measuring business performance and maintaining proper incentives, credit unions are expected to have the capacity to assign a liquidity cost or benefit to different business activities, including new products, in terms of funding requirements, risks or provisions. These costs and benefits should be explicitly attributed to the relevant activity and reinforce the overarching liquidity risk tolerance of the credit union, with a liquidity charge assigned as appropriate to positions, portfolios or individual transactions.

This assignment of liquidity costs and benefits should incorporate factors related to the anticipated holding periods of assets and liabilities, their market liquidity risk characteristics and any other relevant factors. Further, in designing new products, a reputation assessment should be made of potential draws beyond contractual and/or legal obligations and potential impacts priced directly into a product.

Disclosure

Assets held for liquidity are required to be disclosed in the financial statements of the credit union. It is also recommended that information regarding the management of liquidity including policy limits, actual liquidity levels and trends etc. are also included to the extent appropriate for the size and complexity of the credit union. This should include the total amount of assets held for liquidity expressed as a percentage of total deposits and borrowings. Unencumbered and encumbered liquid assets should be separately reported.

For credit unions with assets in excess of \$500 million, the results of the LCR base case scenario should be included in management's discussion and analysis portion of the financial statements.

DICO Assessment Process

As part of its on-going review process, DICO undertakes an assessment of the inherent risks within each significant activity undertaken by a credit union and evaluates the quality of risk management which includes an assessment of the credit union's liquidity management practices.

As part of DICO's overall assessment, DICO will consider:

- the extent and quality of analysis applied;
- the level of conservatism in the internal estimates of the risks faced by the credit union;
- the extent that material risks are fully captured by the credit union, including both credit union specific and market events;
- the diversification of funding sources and the setting of limits on individual sources;
- the extent and quality of liquidity testing programs, tools and techniques, and the reasonableness of assumptions used;
- contemplation of the extent to which access to different funding sources is correlated in time of stress
- the extent of contingency funding planning; and

- the form and content of Board reporting including discussion and analysis of liquidity testing outcomes and trends, and material concentrations of funding sources and obligations.

This assessment will also form part of DICO's examination criteria when considering the quality of liquidity management policies and practices.