

# Liquidity Risk Management

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## **Executive Summary**

The ability of a financial institution to meet demand for deposit withdrawals and other cash outflows is a visible indicator of its viability. If a credit union cannot meet depositor withdrawal requirements, general creditor expenses, or if it is forced to significantly limit new lending, a lack of member confidence can develop.

The level of liquidity which is maintained must at a minimum meet regulatory requirements. Liquidity must also be sufficient to satisfy demand for cash withdrawals, financing commitments for approved loans, and routine operating cash outflows. Too much liquidity (excess liquidity), on the other hand, can be an inefficient use of funds, and can restrict the profitability of the credit union.

Liquid assets should be managed with due regard to principal safety, yield volatility, and, where liquid assets bear risk, investment diversification. Credit unions should have access to supplemental lines of credit or segregated liquidity pools to satisfy liquidity requirements.

A credit union which has not met legislated liquidity requirements is restricted from regular lending and investment activities (see section 20(1) of Regulation 76/95). Insufficient liquidity may also lead to intervention by DICO.

A credit union can meet standards of sound business and financial practices by ensuring it has developed and implemented liquidity policies, risk and performance measurement techniques, and risk management procedures comparable to those contained in this chapter. Policies, measurement techniques and procedures should be appropriate for the size and complexity of the credit union's operation.

## Legislative Summary

Sections 16 to 21 of Part V of Regulation 76/95 contain minimum liquidity requirements for credit unions. These sections prescribe three different liquidity requirements. The first, under section 16, requires the maintenance of a one per cent reserve of cash or near cash items. The second liquidity measure requires the maintenance of a 10 per cent reserve of liquid assets prescribed under sections 17 and 18 (or eight per cent if the credit union is a member in a liquidity pool).

The third liquidity requirement is partially set out in section 21 of Regulation 76/95. This last requirement examines liquidity less short term borrowings. All three liquidity requirements are examined below, as well as FSCO's reporting requirements which are set out in sections 20 and 21.

Schedule 8.1 provides a summary of the important regulatory restrictions pertaining to liquidity management. As only a summary is provided, readers should refer to the Act, Regulation 76/95 and Ministry Interpretative Bulletins for a complete description of a credit union's regulatory rights and obligations.

<b>Schedule 8.1</b>		
<b>RELEVANT LIQUIDITY RELATED LEGISLATION</b>		
	<b>The Act</b>	<b>Regulation 76/95</b>
Adequacy of liquidity	84	
Superintendent's orders - additional liquidity requirements	85-88	
Report to Superintendent on liquidity	89	
Adequate liquidity		16-18
Liquidity pool		19
Non-compliance		20-21
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## **Policy**

It is recommended that the credit union adopt a liquidity policy that addresses:

- sources and acceptable ranges of operational liquidity;
- quality of assets used for liquidity purposes;
- maximum limits on liquidity borrowings;
- maturity matching and/or hedging of large deposits;
- frequency, form and content of board reporting.

These recommended objectives of liquidity policy are discussed in greater depth in Sections 8201 to 8205. Adopting a liquidity policy will assist the credit union to manage risk and to comply with the Standards in DICO By-law No. 5. For recommended operational procedures, refer to Section 8500.

Examples of liquidity policy are available in the DICO publication *Sample Policies*, and are available to the industry for customization as appropriate. As well, the information provided in Sections 8201 to 8205 will also assist in establishing policies of liquidity management.

Liquidity policy must not conflict with the requirements prescribed by the Act, Regulation 76/95, and any interpretative bulletins or guidelines issued by FSCO. It is optimal for key regulatory liquidity requirements to be repeated in liquidity policy for greater clarity and ease of reference.

## **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 of directors. 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 circumstances and environment of the credit union, important principles of liquidity management should always address the following principles:

- ensuring enough liquidity to guarantee the orderly funding of members needs;
- providing a prudent cushion for unforeseen liquidity needs;
- investing liquid funds in a manner which emphasizes the need for security and liquidity.

## **Adequate Range of Liquidity**

From a business perspective, the gross liquidity requirement stipulated in legislation represents only an arbitrary minimum for most credit unions.

A minimum operating liquidity level should be established to maintain a comfortable cushion beyond the minimum statutory requirement, in order to meet cash needs. A desired target maximum for operating liquidity also needs to be established to reflect the fact that too much liquidity has a negative effect on earnings. Accordingly, a target range for operating liquidity, stated as a percentage of assets, needs to be established.

In order for a financial institution to decide the optimum level of liquidity for its operations, it should look at the following factors:

- cash flow needs for the immediate future (one year);
- previous years liquidity fluctuations (at least two years);
- expected increases/decreases in loan demand;
- income requirements for the year;
- volume of deposit withdrawals;
- volume of institutional deposits and large deposits;
- any other known factors which may have an effect on available liquidity.

Part of this process includes having a comprehensive understanding of the nature of the credit union's assets and liabilities, and the cash flows these represent. This type of information can be obtained from the cash flow analysis statement.

## Sources of Liquidity

Sections 16 to 18 of Regulation 76/95 list the assets that may be used by a credit union for liquidity purposes. These include, among others, the following deposit instruments:

- deposits in a league;
- deposits in a chartered bank;
- treasury bills issued by Canadian governments;
- bonds and debentures unconditionally guaranteed by Canadian governments;
- Canadian dollar deposits with or acceptances issued by Schedule I banks or Schedule II banks with a DBRS rating of R-1 low or better.

When purchasing liquid assets, the credit union should rely either on its league, or on brokers that have been authorized by the credit union. (A list of authorized brokers should form part of the credit union's investment policy; this list can be the same for both investment and liquidity purposes).

The credit union may also wish to establish policy limits on the maximum terms (length of time) that securities can be purchased for. Assets purchased for the liquidity portfolio should generally have a contractual maturity of less than one year.

### Minimum Quality of Liquid Assets

Purchases of liquid assets should also adhere to minimum investment quality limits. Generally, the credit union should ensure that the quality of their liquidity investments comply with the limits prescribed in Regulation 76/95. However, a credit union which is dealing with chronically low levels of liquidity may choose to elect more restrictive limits on quality. A credit union which has a sophisticated or complex liquidity portfolio may also want to set more restrictive quality limits on all or a percentage of its portfolio.

## **Limits on Borrowing**

In situations of liquidity shortages, credit unions may need to borrow funds to meet liquidity needs and minimum statutory requirements. When doing so, the credit union should be aware of regulatory limits on borrowing. Section 183 of the Act prescribes regulatory limits on external borrowings: 25 per cent of a credit union's regulatory capital and deposits in ordinary circumstances; and 50 per cent of regulatory capital and deposits in circumstances where a specific by-law of the credit union permits higher borrowings. As well, section 21 of Regulation 76/95 prescribes a liquidity adequacy test which deducts certain forms of short term borrowing.

Funds borrowed to meet statutory liquidity requirements or general liquidity needs can prove costly to a credit union due to its negative impact on profit. Consequently, borrowings should be used on an exception basis, when non-anticipated withdrawals of a significant amount or unexpected loan growth threaten to bring liquidity below statutory levels.

Credit unions should consider using borrowings as a short term solution for liquidity shortages only. It should consider more permanent options to reduce liquidity shortages in the long term, such as appropriate financial and marketing strategies (see Section 8501 for examples of these). To discourage use of borrowings over the long term, policy could require board approval for use of borrowings over periods of six months.

Finally, the credit union may want to establish limits on liquidity borrowings that are more restrictive than those set out in the Act.

### **Lines of Credit**

Whenever a credit union establishes a supplemental line of credit with a league or a chartered bank, the relationship should be in writing and should be specific to the amount and conditions of possible use. A credit union should keep the arrangement under constant review, and provide full disclosure to the lender of fluctuating liquidity requirements. A credit union's lender will be keenly interested in the client's credit worthiness; in particular, the level of capital in the credit union and the quality of the loan portfolio. The higher the level of capital, the lower the risk to the lender and the more likely the availability of supplemental lines of credit.

## **Large Deposits**

It is generally acknowledged that a credit union which relies on a significant number of large deposits is in a less favourable liquidity position than one whose deposit base consists of many average sized accounts. The withdrawal of large deposits due to interest rate competition or members' investment discretion can significantly impair liquidity and should be avoided.

In this regard, the credit union should adopt a policy which requires the identification of deposits held by one member that are over a certain size. The following elements of a large deposits policy are recommended:

- Policy should define what it considers a large deposit for these purposes. Generally, a large deposit is one that if withdrawn, would have a significant impact on operational liquidity. The size can best be expressed as a percentage of assets or deposits.
- When defining large deposits, the policy may want to distinguish between large institutional deposits and large member deposits.
- When determining what qualifies as a large deposit, management should consider the total amount of deposits that belong to an individual and group of connected persons.
- Policy should require the appropriate maturity matching of any large deposits. This involves ensuring funds equal to the amount of the deposits are invested in liquid assets, in addition to normal operating liquidity.
- Alternately, policy may require a 60 day notice period before withdrawal of large deposits.

## **Planning**

Annually, management and the board of directors must develop an business plan for the credit union, summarizing the credit union's goals and objectives for the coming year.

This annual business plan includes a strategic financial plan that addresses each area of risk management, including liquidity. As part of the strategic financial plan, management and the board must set financial targets and plans for liquidity management. The elements of a liquidity plan are set out in Chapter 1 on Planning, and should be referred to for planning purposes.

## Risk Measurement and Board Reporting

It is recommended that the credit union measure the performance and risk level of the liquidity portfolio and report these findings to the board.

### Risk Measurement

The following are minimum risk and performance measures of liquidity management, required by sound business and financial practices:

- the volume of liquid assets, relative to the plan and to historic levels, and compared against regulatory requirements;
- the average liquidity yield;
- the amount of short term borrowings (i.e. less than 100 days);
- identification of large deposits (as defined in Section 8205).

The credit union must comply with any liquidity related measurement requirements set out in the Act and Regulations. The credit union may track any other measures of the liquidity portfolio as it sees fit.

These measurements should be compared to financial targets in the annual business plan and the budget, so that management can determine whether the credit union is meeting its goals. Management can also assess whether there are material variances from the plan which need to be addressed.

Comparison of these measurements against historical performance, where possible, can also identify significant trends which may need to be addressed by management.

### Risk Measurement Techniques

Due to the similarities between the investment portfolio and liquidity portfolio, the techniques used to measure liquidity risk are the same as the techniques used to measure investment risk. Therefore, the discussion on risk measurement techniques in Section 6401 should be referred to when developing risk measurement techniques for liquidity management.

### Board Reports

The measurements of liquidity risk discussed earlier should be reported to the board of directors, so that the board can also monitor the liquidity portfolio and ensure adherence to regulatory requirements and to the annual business plan. Material variances from plan and their causes, as well as management's plan to correct the variance, should also be included in the report. Management should also provide the board with a summary on compliance with liquidity policy and relevant regulatory requirements.

### Frequency

Management should provide the board with a report on the liquidity portfolio for each board meeting.

**Form**

Schedule 8.2 on the following page illustrates a Sample Board Report on Liquidity Management which can be used by management to monitor liquid asset portfolio, ensure regulatory compliance and report findings to the board. The report compiles and compares all the volumes, targets and policy limits required to properly manage the risk of the credit union's liquid asset portfolio. This report can be adopted or amended for use by the credit union.

Information contained in the report can be expressed on a periodic basis (monthly, quarterly), or on a year-to-date, or both, depending upon the preferences of the board and the frequency of reporting.

The frequency, form and content for board reports on liquidity should be set out in liquidity policy.

<b>Schedule 8.2</b>					
<b>SAMPLE BOARD REPORT ON LIQUIDITY MANAGEMENT</b>					
<b>Part I: Liquidity, Liquidity Borrowings and Liquidity Yields</b>					
Latest projected liquidity needs: \$ _____					
Actual		Per Plan	Per Policy	Statutory Requirement	Variance from Plan
Total liquid assets, as a % of deposits and borrowings:	%	%	min: % max: %	%	%
Total short term borrowings (i.e. less than 100 days) as a % of deposits and borrowings:	%	%	%	%	%
Average yield on liquid assets (%):	%	%			%
Variances should be calculated as a percentage of the corresponding figure stated in the business plan.					
<b>Part II: Identification of Large Deposits</b>					
Large deposits defined as exceeding: \$ _____			Number of large deposits: _____		
	<b>Actual</b>	<b>Same Month Last Year</b>	<b>Has sufficient additional liquidity been set aside for large deposits:</b>  YES / NO  <b>How much: \$ _____</b>		
Dollar volume of large deposits:	\$	\$			
Large deposits as a % of deposits and borrowings:	%	%			
<b>Part III: Corrective Action/Strategies</b>					
Variance		Corrective Action/Strategy			

## Risk Management

### Corrective Action

An important activity in the effective management of risk is management's timely response to unauthorized risk or poor performance developments. As a follow up to the liquidity risk measurements taken by the credit union (discussed in Section 8400), management should investigate all significant performance variances relative to the annual business plan and to historical performance, and respond by taking action to correct these variances. Management must similarly respond to any contravention of board policy or regulatory requirements, or other unauthorized risk.

### Operational Procedures

It is recommended that credit unions have procedures in place which will ensure compliance with:

- minimum liquidity requirements, set out both in legislation and in board policy;
- minimum investment quality limits, set out both in legislation and in board policy;
- and that large deposits are properly hedged or matched, so that operational liquidity will not be greatly affected if these deposits were withdrawn.

Section 8501 discusses procedures that can assist management to monitor cash flow needs, monitor compliance with regulatory and policy liquidity needs, and address liquidity shortages or excesses. To assist in implementation, procedures should be both appropriate and cost effective given the size of the credit union's operations.

It is a sound business and financial practice for credit unions to document procedures. Written procedures result in higher staff productivity and better control over resources.

## Operational Procedures

The following procedures can assist management to monitor cash flow needs, to monitor compliance with regulatory and policy liquidity needs, and to address liquidity shortages or excesses.

### Monitoring Liquidity Needs

The credit union's liquidity needs should be reviewed on a periodic basis. For most credit unions, this will mean at least on a weekly basis. This review should encompass a detailed forecast of imminent liquidity requirements and a broad projection of cash needs for the next three month period.

Summary measurements of liquidity needs should be prepared for board review at each board meeting, in addition to the risk measurements discussed in Section 8400.

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 deficiencies are below operational levels, management will have to take action to correct these levels.

### Liquidity Shortages

Whenever deficient liquidity levels are discovered, management must prepare marketing and financial strategies to align liquidity levels within desired targets, or take defensive actions.

Defense actions to protect the liquidity position of a credit union would normally include:

- marketing measures to improve deposit levels;
- judicious use of standby lines of credit;
- judicious use of borrowings for liquidity support;
- temporary curtailment of lending;
- sale of assets to a third party.

It should be recognized that the above noted defense actions are listed in order of most attractive to least attractive option. Curtailment of lending activity is considered least desirable because of the negative effect on member confidence, however, certain restrictions on lending may become a necessary trade-off in a liquidity crisis. Early reaction, in terms of moderate or temporary curtailment of lending, will often overcome the need for drastic measures at some later stage.

Alternative liquidity defense strategies such as an available overdraft facility and an approved line of credit facility with a league or chartered bank are recommended sound business and financial practices. The use of an overdraft facility permits a credit union to maximize the value of its float without jeopardizing the clearance of its negotiable instruments. One example of an aggressive cash management strategy would be to make the greatest possible use of short term call deposits in the money market while permitting the current account to be in occasional overdraft position, in order to maximize earnings.

**Excess Liquidity**

Where a credit union has significant liquidity in excess of statutory requirements due to unanticipated net cash inflow, management should examine options to reduce liquidity to an appropriate level. High levels of liquidity generally have an unfavourable effect on profitability, as the rate of return earned on short-term investments is usually not as high as the yield on loans, and cash held in the credit union earns no interest. In order to reduce liquidity which is in excess of operational requirements, management should ensure it has exhausted all credit granting opportunities, without compromising on credit quality. Alternatively, the credit union should undertake membership drives to expand loan demand.

Where the promotion of credit does not fully utilize excess liquidity, interim investment of funds should generally be made in short-term investments, so that conversion to new loans may readily occur. During an economic downturn or in situations where aging member demographics are difficult to reverse, board and management may determine that a portion of excess liquidity is likely to persist for longer than the current fiscal period. In such situations, management should look for safe investments with terms in excess of one year that would generate higher yields. For more on investments, refer to Chapter 6 on Investment Management.