Appendix 1 –
BC Financial Services Authority
Liquidity Management Guideline

May 2020

INTRODUCTION

The Liquidity Management Guideline (Guideline) outlines the BC Financial Services Authority's (BCFSA) expectations for sound liquidity risk management practices at BC authorized credit unions (including central credit unions)[1].

Liquidity is the ability of a credit union to generate, obtain, and maintain sufficient cash, or its equivalent, in a timely manner at a reasonable cost to meet its commitments as they fall due. Adequate balance sheet liquidity is critical for the overall safety and soundness of credit unions.

BC credit unions[2] are required by legislation to hold a prescribed amount of statutory liquidity in accordance with the *Liquidity Requirement Regulation* and/or rules established by the BCFSA. BCFSA does not view reliance on statutory liquidity as adequate liquidity risk management. Credit unions are expected to employ a range of metrics and liquidity risk management practices, tailored to their unique circumstances, to ensure that they have adequate and appropriate forms of liquidity for current and future needs.

A credit union should ensure that the expectations outlined in this Guideline are applied to its liquidity risk management framework, relative to the credit union's size, scope and complexity.

GOVERNANCE AND RISK APPETITE

A credit union's board of directors approves a liquidity risk appetite[3] for the credit union and ensures that it is clearly communicated and understood by all stakeholders.

The credit union's Board of Directors (Board) is ultimately responsible for overseeing the prudent management of liquidity risk. The Board is responsible for:

- approving the credit union's liquidity risk appetite as developed by senior management;
- disclosing liquidity risk management practices to credit union members and external stakeholders; and
- reviewing these practices regularly to ensure they adhere to the credit union's approved risk appetite.

The Board's policies regarding liquidity risk management are forward looking and consistent with the

[1] The guideline will specify the situations where expectations differ between a credit union and a central credit union.
[2] This expectation does not apply to a central credit union.
[3] The term "risk appetite" is used throughout this guideline to refer to the maximum level of risk that a credit union will accept in carrying out its business.

credit union's risk appetite, risk governance framework and strategy.[4] The credit union's liquidity risk appetite reflects its financial condition and funding capacity. In approving the credit union's liquidity risk appetite, the Board ensures senior management has established an approach to managing the balance between liquidity risk and short-term profits. In addition, the Board should:

- understand the credit union's financial position with regard to liquidity and its exposure to liquidity risk and review the information necessary to maintain this understanding at least annually;
- establish lines of authority and responsibility for managing the credit union's liquidity risk;
- oversee senior management's identification, measurement, monitoring and control of liquidity risk;
- understand and periodically review and approve the credit union's liquidity stress tests and/or contingency plans for dealing with adverse liquidity events and adverse funding situations; and
- understand the liquidity risk profiles of key subsidiaries, as appropriate.

A central credit union's liquidity risk appetite must reflect the role played by the central in the credit union system as statutory liquidity manager[5] and group clearer for credit unions.

LIQUIDITY RISK MANAGEMENT FRAMEWORK

A credit union has a robust liquidity risk management framework that enables it to address its daily liquidity obligations and withstand periods of stress.

To properly manage liquidity risk, a credit union relies on a robust liquidity risk management framework. A credit union[6] understands and considers the capacity, timeliness and limits of the statutory liquidity manager when developing its liquidity risk management framework.

A robust liquidity risk management framework includes the following:

- a Board-approved appetite for liquidity risk that is reflected in liquidity and funding policies;
- policies and processes for measuring, monitoring and managing liquidity risk in accordance with

[4] See BCFSA's *Governance Guideline* published September 2013.
[5] The term "statutory liquidity manager" refers to the organization that manages the credit union's liquidity in accordance with section 5 of the *Liquidity Requirements Regulations* and/or rules set by the BCFSA. In this guideline, the term statutory liquidity manager refers to the central credit union unless otherwise specified (i.e. a credit union authorized by BCFSA to manage their own statutory liquidity).
[6] This expectation does not apply to a central credit union.

the Board-approved risk appetite;

- a process to regularly communicate with the statutory liquidity manager and other counterparties to fully understand the credit union's ability to access liquidity facilities and redeem investments held with each counterparty;
- regular stress testing to identify and quantify credit union exposure to possible future liquidity stresses;
- a documented appropriate cushion of high-quality liquid assets (HQLA)[7] to withstand a range of stress events;
- a formal Liquidity Contingency Plan (LCP) that clearly sets out strategies for addressing liquidity shortfalls in emergency situations with participating roles and escalation processes clearly defined to facilitate timely response management; and
- information systems and internal controls to ensure compliance with established liquidity risk management policies and procedures.

A central credit union's liquidity management framework should also reflect its role as statutory liquidity manager and facilitator of payments services and recognize the unique liquidity stresses that this role can introduce.

POLICIES, PROCEDURES AND PRACTICES[8]

A credit union develops policies, procedures and practices to manage liquidity risk in accordance with the Board-approved risk appetite.

A credit union has documented liquidity policies, procedures and practices in place that are communicated and understood at all relevant levels of the organization. The Board reviews and approves these policies, procedures and practices at least annually, and ensures that senior management is managing liquidity risk in accordance with established policies, procedures and practices.

Depending on its size, scope and complexity, a credit union has policies, procedures and practices that:

- limit and target the sources, types and levels of liquid assets to meet operational and regulatory requirements;

[7] See Appendix 2 for more information on HQLA

[8] Policies outline high level principles. Procedures operationalize policies. Practices are detailed instructions.

- identifies potential operating liquidity risks and appropriate assurance that all cash outflow commitments (on- and off-balance sheet) are honoured;
- maintains unencumbered liquid assets that can be readily converted into cash without incurring undue capital losses or excessive costs;
- identifies diverse and stable funding sources;
- monitors concentrations of funding particularly where large portions of funding arise from a single source;
- identifies potential long-term liquidity needs resulting from unusual business conditions;
- identifies structural imbalances between assets and liabilities; and
- oversees risks associated with:
    - wholesale funding such as municipal, university, school and hospital (MUSH) deposits;
    - brokered deposits;
    - foreign exchange;
    - investments;
    - derivatives; and
    - securitizations.

<u>Securitization</u>

Securitization is the process through which financial assets are packaged into securities which are then sold to investors. Some credit unions use securitization to access funding and to diversify their funding sources.

A credit union's policies, procedures and practices regarding securitizations should appropriately address the short- and long-term liquidity risks associated with its securitization transactions. The risks (including concentration of funding source and degree of encumbrance) inherent in securitizations are understood by the credit union and prudently mitigated.

ROLE OF THE STATUTORY LIQUIDITY MANAGER[9]

A credit union understands the liquidity risk exposures and funding capacity of the statutory liquidity manager, taking into account legal, regulatory and operational limitations to the transferability of

[9] In this section, the references to credit union do not include a central credit union. Where a credit union receives approval from BCFSA to manage its own statutory liquidity, this section would also not apply.

liquidity as it relates to the credit union.

A credit union understands how the statutory liquidity manager undertakes its role in the management of system liquidity. This includes management of statutory liquidity and any other deposits, and the funding capacity of the statutory liquidity manager. The central credit union understands its role as a statutory liquidity manager for credit unions and how changes in funding requirements for credit unions could affect its ability to provide liquidity to the system. The central credit union is transparent in its management of credit union liquidity and communicates any material barriers or impediments to providing adequate liquidity to credit unions and BCFSA.

A credit union engages with the statutory liquidity manager to fully understand any constraints or barriers associated with accessing liquidity. The liquidity risk management framework clearly articulates assumptions regarding transferability of funds and collateral, and fully considers regulatory, legal, accounting, credit, tax and internal constraints on the movement of liquidity and collateral between parties. A credit union adheres to expectations regarding access to its statutory liquidity established through legislation or regulatory guidance.

Co-ordinated communication and management plans and procedures are in place between a credit union and the statutory liquidity manager in advance of a liquidity event. This includes planning for appropriate notification to BCFSA. Timely and appropriate communication between the statutory liquidity manager, its member credit unions, and other stakeholders is also of vital importance when liquidity problems arise.

MEASURING, MANAGING, MONITORING AND REPORTING LIQUIDITY

A credit union has sound processes in place for identifying, measuring, monitoring and managing liquidity risk.

Reliance on statutory liquidity is insufficient for liquidity risk management purposes. A credit union employs a range of liquidity measurement tools and metrics, appropriate for its size, scope and complexity, to assess its exposures and proactively mitigate risks. A credit union has appropriate and sufficient systems, processes and practices in place to identify, measure, manage and monitor sources and uses of liquidity and the commensurate risk.

A comprehensive liquidity measurement process is in place that is integrated within the liquidity management framework and liquidity contingency plan of the credit union. Subject to its size, scope and complexity, a credit union tracks and understands key liquidity metrics which may include:

Liquidity Coverage Ratio (LCR)

The LCR is a risk-sensitive liquidity metric that is used to assess whether a credit union has an adequate stock of HQLA to survive a 30-day stress scenario.

Net Cumulative Cash Flow (NCCF)

The NCCF identifies a credit union's potential future funding mismatches between contractual inflows and outflows for various time bands over and up to a 12-month time horizon. It signifies the survivorship of a credit union's cash flows to a point of exhaustion.

In addition, a credit union has processes for monitoring the following:

- early warning indicators of emerging liquidity concerns (see Appendix 1);
- access to a diversified set of funding sources and maturities;
- management of any collateral positions;
- use of securitizations;
- use of borrowing lines;
- tracking of deposit composition, including high-value, wholesale and brokered deposits; and
- concentration of funding (in particular where a single entity or group makes up a significant portion of deposits).

Further, a credit union identifies, monitors, measures, and reports on other material risks and the ability of these risks to impact its liquidity position.

A credit union is also able to produce liquidity data on a spot basis[10] to BCFSA, as requested. The ability to produce spot reports aids credit unions' own liquidity risk management.

A credit union's monitoring tools offer insight into liquidity risk exposures across various business units and product lines, including distinct legal entities, and take into account legislative and regulatory limitations on the transferability of liquidity across the organization, its business lines, and subsidiaries.

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[10] Reporting on a spot basis means that a credit union is prepared to produce and report to BCFSA its liquidity position more frequently or on an ad hoc basis in a liquidity stress event.

STRESS TESTING

A credit union undertakes liquidity stress tests on a regular basis to identify and quantify its exposures to possible future liquidity stresses.

Depending on its size, scope and complexity, a credit union conducts stress tests for a variety of short-term and protracted credit union-specific and market-wide stress scenarios. These tests identify sources of potential liquidity strain and ensure that current exposures remain consistent with the credit union's established liquidity risk appetite.

The extent and frequency of testing are commensurate with the size, scope and complexity of the credit union and its liquidity risk exposures. Stress tests can range from formal modelling to simple assumptions being applied to the credit union's balance sheet.

Senior management reviews stress testing scenarios, assumptions and results and reports on them to the credit union's board of directors. Stress testing results play a key role in shaping the credit union's contingency planning and in determining the strategy and tactics to deal with events of liquidity stress.

The results of the stress testing process are integrated into the credit union's planning process (for example, adjusting the credit union's balance sheet composition) and its day-to-day risk management practices (for example, through monitoring sensitive cash flows or reducing concentration limits). The results of the stress tests are key considerations when establishing internal limits, liquidity cushions, funding sources and liquidity contingency plans.

In addition to its own stress testing, BCFSA may require that a credit union[11] participates in, and/or understands the results of stress testing involving multiple actors that may include the statutory liquidity manager. This activity should consider both credit union-specific and system-wide stress events and should provide a credit union with a more fulsome understanding of the statutory liquidity manager's funding capacity.

A central credit union's stress testing incorporates analysis of its own funding requirements and those of its member credit unions as well as risks associated with services provided to the credit union system such as management of payment systems.

LIQUIDITY CUSHION

A credit union maintains a cushion of high-quality liquid assets (HQLA) that can be used in the event of a range of liquidity stress scenarios.

[11] This expectation does not apply to a central credit union.

A credit union maintains a cushion of HQLA that is available to support a range of stress scenarios, including those that involve the loss or impairment of unsecured and typically available secured funding sources.

Key considerations when establishing a liquidity cushion include assumptions about the size of cash flow mismatches, the duration and severity of stresses and the liquidation or borrowing value of assets (the estimated cash available to the credit union if assets are liquidated or used as collateral for secured funding). Assets pledged to secure specific obligations are not considered part of the liquidity cushion. Demonstration of counterbalancing capacity (for example, the ability to raise unsecured funds, draw on commitments, call loans or access new secured funding sources in the short-term) are not considered an appropriate substitute to maintaining an adequate liquidity cushion.

The size of the liquidity cushion is determined by the credit union and is aligned with its risk appetite and business operations. A credit union ensures that its liquidity cushion 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. The size of the liquidity cushion is appropriate for the credit union's specific funding composition and is informed by key liquidity metrics and the results of stress testing. The size of the liquidity cushion is reviewed regularly to ensure it supports the evolving financial position of the credit union.

A credit union is prepared to use its cushion of liquid assets in a stress event, and ensures that there are no legal, regulatory or operational impediments to the use of these assets.

LIMITS AND INTERNAL CONTROLS

A credit union has information systems and controls in place that enable senior management and the Board to review compliance with established liquidity risk management policies, procedures, practices and limits.

A credit union has documented limits and internal controls that are communicated and understood at all relevant levels of the organization. Limits are operationally effective and established in accordance with the credit union's stated liquidity risk appetite and stress testing results. They are not set so high that they are never triggered. A credit union has clearly articulated and documented policies for dealing with limit exceptions, including authorization procedures.

Senior management ensures that there are adequate internal controls over the credit union's liquidity management. Depending on its size, scope and complexity, a credit union's liquidity risk oversight responsibilities are assigned to a function that is independent of business operations.

Monitoring of performance against limits is conducted by parties that are operationally independent of funding areas and other business units. Staff are trained and have the appropriate tools and systems necessary to monitor whether liquidity risk remains within the bounds set by senior management and the board of directors. This process is reviewed regularly as part of the general internal audit process or a compliance review process.

CONTINGENCY PLANNING

A credit union has a formal Liquidity Contingency Plan (LCP)[12] *that clearly sets out credit union strategies for addressing liquidity shortfalls in emergency situations.*

A credit union's ability to withstand liquidity disruptions can depend on the quality of its LCP. An LCP is the compilation of policies, procedures and action plans for responding to disruptions to a credit union's ability to fund some or all of its activities in a timely manner and at a reasonable cost.

An effective LCP is self-contained[13] consisting at a minimum of:

- a clearly defined process to identify a potential liquidity event before it becomes a crisis, including early warning indicators, triggers and metrics;
- a clearly defined process to identify stress events that could threaten a credit union's ability to fund both short-term (including intra-day) and long-term operational and strategic requirements;
- procedures and requirements for increased reporting to senior management and the board of directors to ensure timely and uninterrupted information flow during emergency situations;
- a clear division of roles and responsibilities within senior management for stressed or crisis events;
- a list of management actions for making up cash flow shortfalls in emergency situations;
- a defined process to timely notify BCFSA of the initialization or de-escalation of an LCP; and
- a recovery plan to bring liquidity ratios back to required levels after depletion.

See Appendix 1: Liquidity Contingency Plan Criteria for further details on recommended LCP criteria.

The development and ongoing maintenance of LCPs is closely linked to a credit union's liquidity stress

[12] May also be referred to as a "Contingency Funding Plan" or a CFP.

[13] An LCP can be contained within the credit union's liquidity management framework, but it must be a separate plan for dealing with stress scenarios.

testing results. Depending on its size, scope and complexity, a credit union regularly reviews and tests its LCP and undertakes an independent third-party review of LCP assumptions.

COMMUNICATION WITH THE REGULATOR

A credit union is in continuous communication with BCFSA during times of stress.

In the lead up to and during times of liquidity stress, a credit union is in regular contact with BCFSA. A credit union is able to report on its liquidity positions on a daily basis and does not rely on any other parties to relay information to BCFSA. Credit unions retain full ownership and accountability over any increased liquidity reporting or communication requirements imposed during times of increased stress or crisis.

A credit union does not need to seek regulatory approval before accessing its statutory liquidity held by the statutory liquidity manager if a liquidity stress event develops. However, it must immediately notify BCFSA as soon as it determines it may require access to its statutory liquidity.

APPENDIX 1: LIQUIDITY CONTINGENCY PLAN CRITERIA

Depending on its size, scope and complexity, a credit union's Liquidity Contingency Plan (LCP) contains the following:

1. **Early Warning Indicators/Triggers/Metrics** – A credit union develops a process for identifying a potential liquidity event before it becomes a crisis. This may include those events where key liquidity ratios still remain stable but early warning signs are emerging such as:

    - significant changes in the Liquidity Coverage Ratio (LCR), Net Cumulative Cash Flow (NCCF) profile and/or other key measures of liquidity;
    - higher loans to deposit ratio or consistently high utilization of borrowing lines;
    - negative publicity that may reduce depositor and market confidence in the credit union;
    - difficulty securing borrowing lines or shortening/elimination of borrowing lines by lenders;
    - rising funding costs above projections/expectations warranted by the current environment;
    - significant widening of credit spreads;
    - increasing run-offs of core deposits; and
    - issues with securitization (for example, the inability to securitize due to tightening rules or the quality of assets).

    Recognition of these early warning signs enhances the credit union's readiness as events evolve.

    Early warning trigger points are reviewed at least annually and informed by the credit union's stress testing.

    For the central credit union, additional early warning indicators include stressed indicators for member credit unions. Clear channels of communication with credit unions are crucial for the operation of an early warning system.

2. **Liquidity Stress Events** – Credit union senior management identifies stress events that could threaten the credit union's ability to fund both short-term (including intra-day) and long-term operational and strategic requirements. Stress events may be market-wide or credit union specific and may include but are not limited to:

- deterioration in credit rating;
- deterioration in supervisory Composite Risk Rating (CRR);
- negative publicity/elevated reputational risk;
- rapid asset growth (high loans to deposit ratio) where funding comes from less stable sources such as agent deposits, MUSH (municipalities, universities, schools and hospitals) deposits, and asset-backed commercial paper (ABCP) securitization;
- material changes in member relations/perceptions;
- unexpected run-off from a large depositor or category of depositors (for example, retail depositors);
- loss of access to securitization markets;
- large, unanticipated drawdown in loan obligations;
- significant deterioration in a credit union's financial condition including asset quality; and
- external events (for example, a force majeure or a cash/credit crunch in the system).

For the central credit union, stress events in addition to the above may include a large number of credit unions drawing down their deposits with the central at the same time.

Various levels of severity should be identified in each of the above scenarios. The above events, stages and levels of severity should be tailored to the credit union's specific funding structure. The LCP should quantify the amounts and timing of potential funding and liquidity available to the credit union through various sources during a stress event that would help remedy their stress.

3. **Reporting** – A credit union has a plan for more frequent and thorough reporting to senior management and the board of directors during emergency situations. The LCP should consider additional reports that are not normally prepared or are prepared only for regulatory reasons (such as NCCF). The board of directors should review the plan at least annually.

4. **Accountability/Responsibility** – A credit union has a clear division of roles and responsibilities within management for stressed or crisis events along with escalation procedures for times of increasing severity. A credit union has a designated point of contact that will communicate with BCFSA during times of crisis.

5. **Management Actions and Timeliness** – A credit union anticipates potential management actions for making up cash flow shortfalls in emergency situations along with timelines for their implementation. These may include:

   - liquidation of high-quality liquid assets;
   - securitization (Mortgage-Backed Securities (MBS)/Canada Mortgage Bond (CMB) allotment for one quarter);
   - access to third party credit facilities (preparation of transaction documentation ahead of time since certain transactions may take weeks to close/sound collateral management);
   - loan sales (considering haircuts);
   - accessing excess liquidity;
   - cutting off sources that drain liquidity (for example, cutting back on lending or tightening lines of credit);
   - other actions; and
   - accessing statutory liquidity after all other options have been exhausted.

6. **Recovery plan** – A credit union has a detailed action plan to bring liquidity ratios (liquid assets, borrowing utilization, deposit concentration, etc.) back to the required levels (legislated and regulatory) after depletion of statutory liquidity.

7. **Communication Plan** – A credit union has procedures in place to communicate pertinent information to BCFSA, credit union members, and other stakeholders during a liquidity event.

8. **LCP Testing** – A credit union tests its LCP at least annually in order to assess its reliability under stress. This may include testing the functions of identified actions, simulations to test communications, coordination and decision-making processes.

9. **Independent Review** – An independent review of various assumptions in the LCP is conducted on a regular basis.

APPENDIX 2: HIGH QUALITY LIQUID ASSETS

Assets included in the stock of high-quality liquid assets (HQLA) must be unencumbered. "Unencumbered" means free of legal, regulatory, contractual or other restrictions on the ability of the credit union to liquidate, sell, transfer, or assign the asset. An asset in the stock should not be pledged (either explicitly or implicitly) to secure, collateralize or credit-enhance any transaction, nor be designated to cover operational costs (such as rents and salaries). The following sets out the characteristics that HQLA should generally possess.

Characteristics of HQLA

Assets are classified as HQLA if they can be easily and immediately converted into cash at little or no loss of value. The liquidity of an asset depends on the underlying stress scenario, the volume to be monetized and the timeframe considered. Nevertheless, there are certain assets that are more likely to generate funds without incurring large discounts in sale or repurchase agreement (repo) markets due to fire-sale, even in times of stress. This section outlines the factors that influence whether or not the market for an asset can be relied upon to raise liquidity when considered in the context of possible stresses. These factors should assist credit unions in determining which assets to include in HQLA[14].

- **Low risk**: assets that are less risky tend to have higher liquidity. High credit standing of the issuer and a low degree of subordination increase an asset's liquidity. Low duration[15], low legal risk, low inflation risk and denomination in a convertible currency with low foreign exchange risk all enhance an asset's liquidity.

- **Ease and certainty of valuation**: an asset's liquidity increases if market participants are more likely to agree on its valuation. Assets with more standardized, homogenous and simple structures tend to be more fungible, promoting liquidity. The pricing formula of a high-quality liquid asset must be easy to calculate and not depend on complex assumptions. The inputs into the pricing formula must also be publicly available. In practice, this should rule out the inclusion of most structured or exotic products.

- **Low correlation with risky assets***:* the stock of HQLA should not be subject to wrong-way (highly correlated) risk. For example, assets issued by financial institutions are more likely to be illiquid in times of liquidity stress in the banking sector.

- **Listed on a developed and recognized exchange***:* being listed increases an asset's transparency.

[14] See BCFSA's LCR Reporting Guide for further details on the type of assets included in the stock of HQLA.

[15] Duration measures the price sensitivity of a fixed income security to changes in interest rate.

- **Active and sizable market:** the asset should have active outright sale or repo markets at all times. This means that:
    - There should be historical evidence of market breadth and market depth. This could be demonstrated by low bid-ask spreads, high trading volumes and a large and diverse number of market participants. Diversity of market participants reduces market concentration and increases the reliability of the liquidity in the market.
    - There should be robust market infrastructure in place. The presence of multiple committed market makers increases liquidity as quotes will most likely be available for buying or selling HQLA.

- **Low volatility:** assets whose prices remain relatively stable and are less prone to sharp price declines over time will have a lower probability of triggering forced sales to meet liquidity requirements. Volatility of traded prices and spreads are simple proxy measures of market volatility. There should be historical evidence of relative stability of market terms (for example, prices and haircut) and volumes during stressed periods.

- **Flight to quality:** historically, the market has shown tendencies to move into these types of assets in a systemic crisis. The correlation between proxies of market liquidity and banking system stress is one simple measure that could be used.

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