AUTORITÉ DES MARCHÉS FINANCIERS

LIQUIDITY RISK MANAGEMENT GUIDELINE

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Introduction

Liquidity is critical to the ongoing viability of any financial institution. Poor management of liquidity risk can lead to undue financing costs and difficulty liquidating assets at fair value. This risk may be greater if a financial institution's reputation is damaged.

Similarly, a financial institution's capitalization can impact its ability to obtain liquidity in a crisis, which is why it is important for all financial institutions to properly assess the adequacy of their capital given the liquidity of the markets in which they operate.

This guideline sets out the AMF's expectations regarding liquidity risk management performed by financial institutions. The AMF is empowered by the various sector-based statutes it administers[1] to give financial institutions guidelines pertaining to any sound and prudent management practice. While drawing predominantly on the core principles and guidance issued by The Basel Committee on Banking Supervision,[2] this updated guideline also takes into account the principles of the International Association of Insurance Supervisors.

The updated version also breaks new ground by establishing a process for assessing liquidity adequacy in order to improve market discipline and strengthen oversight of financial institution insolvency risk.

The following are the key topics addressed in this guideline:

- sound and prudent liquidity risk management;
- internal assessment of liquidity adequacy;
- mitigation of liquidity risk;
- crisis management.

[1] *Insurers Act*, CQLR, c.A-32.1., section 463; *Deposit institution and deposit protection Act*, CQLR, c. I-13.2.2, section 42.2; *Act respecting financial services cooperatives*, CQLR, c. C-67.3, s. 565.1; *Trust companies and savings companies Act*, CQLR, c. S-29.02, section 254.

[2] BASEL COMMITTEE ON BANKING SUPERVISION, BANK FOR INTERNATIONAL SETTLEMENTS, *Principles for Sound Liquidity Risk Management and Supervision*, September 2008.

1. Liquidity risk

Liquidity refers to a financial institution's ability to meet its current and anticipated financial obligations as they come due, without disrupting its operations and without incurring substantial losses.

Accordingly, liquidity risk results from a financial institution's difficulty or inability to meet its liquidity obligations in a timely manner and at reasonable costs. Liquidity risk can also extend to a financial institution's inability to take advantage of business opportunities and sustain the growth forecast in its strategic plan (strategic risk) owing to a lack of liquidity or difficulty obtaining funding at reasonable costs.

There are two types of liquidity risk: funding liquidity risk and market liquidity risk. Funding liquidity risk is the risk that a financial institution will not be able to meet efficiently both expected and unexpected current and future obligations without affecting either daily operations or its financial condition. Market liquidity risk is the risk that a financial institution cannot readily sell off marketable assets at the market price because of liquidity market disruption.

2. Sound and prudent liquidity risk management

This guideline favours a principles-based approach and does not impose quantitative requirements regarding ratios or thresholds. Under this approach, the AMF expects financial institutions to define quantifiable limits, put a reliable contingency plan in place and implement coherent governance strategies to mitigate liquidity risk.

2.1 Governance and management of liquidity risk

> The AMF expects the senior management of a financial institution to set up a liquidity risk management framework that will enable the institution to ensure its ongoing viability while meeting liquidity expectations and internal objectives, under both normal and crisis conditions.

In establishing its liquidity risk management framework, a financial institution should determine a liquidity risk tolerance in light of its business strategy, financial condition and funding capacity.[3]

Senior management should, in addition to ensuring that the financial institution performs a self-assessment, implement regular internal controls of liquidity risk management arrangements. It should also ensure that the contingency plan adopted by the board of directors is executed.

The financial institution's senior management should establish internal rules clearly describing the liquidity risk management approach and should disseminate them to all relevant levels of the institution. Those rules should include an escalation process for liquidity monitoring and the steps to follow in complex situations likely to have material financial impacts.

Moreover, a committee responsible for asset-liability management should ensure that the definition of liquid assets used is consistent with the risk appetite determined by senior management and approved by the board of directors.

2.2 Strategies, policies and procedures

> The AMF expects financial institutions to adopt an effective liquidity risk management strategy and implement a policy and procedures to execute the strategy at the operational level.

The financial institution should establish a liquidity risk management strategy to ensure adequate management of liquidity on a day-to-day basis and to protect its capital, maintain marketplace confidence, take advantage of business opportunities and sustain its growth forecast.

Moreover, the financial institution should take the necessary measures to ensure that those objectives continue to be met in a crisis in order to minimize the use of liquidations of assets at a loss or funding at increased costs or unfavourable terms.

A financial institution's liquidity risk management strategy should include both qualitative and quantitative aspects, such as:

[3] Autorité des marchés financiers, *Integrated Risk Management Guideline*.

- responsibilities related to liquidity risk management in normal times and in times of crisis;
- sources of liquidity risk originating from the balance sheet structure, internal affairs, the risk profile and market conditions;
- the impact of liquidity risk on, for example, funding requirements, solvency and reputation;
- the information system supporting liquidity risk management and designed to provide relevant information internally;
- the management of intraday liquidity risk and collateral;[4]
- the liquidity risks related to securitization transactions[5] and the use of complex financial instruments;
- the funding strategies that assure effective diversification of funding sources and tenors across several dimensions such as products, tenors, legal entities and activities and critically assess foreign currency fungibility;
- intragroup liquidity management;
- foreign currency liquidity risk management;
- scenario analyses and stress testing;[6]
- the crisis contingency plan.

4 Basel Committee on Banking Supervision, Bank for International Settlements. *Principles for Sound Liquidity Risk Management and Supervision*, September 2008.

5 Autorité des marchés financiers. *Securitization Risk Management Guideline*.

6 Autorité des marchés financiers. *Stress Testing Guideline*.

3. Assessment of liquidity adequacy

Financial institutions should critically assess their level of liquidity and their future needs based on their risk profile and business plans. The implementation of an internal liquidity adequacy assessment process should allow them to maintain their liquidity at adequate levels on an ongoing basis.

3.1 Identification of liquidity risk sources

> The AMF expects financial institutions to identify the various sources of liquidity risk to which they are exposed.

A financial institution should not ignore any potential source of liquidity risk, be it related to its balance sheet structure, off-balance sheet activities, exposure to other risks or market conditions.

As regards its balance sheet structure, the financial institution may have difficulty meeting its obligations if liquidity is insufficient, unavailable when its obligations become due or available but at an unfavourable cost. Liquidity risk management therefore requires a solid understanding of the costs, availability and maturities of instruments and the risks associated with the institution's various sources of liquidity, both under normal circumstances and in a crisis. The financial institution should also assess the impact of its off-balance sheet activities on its liquidity risk and consider the likelihood that transferred risks will be transferred back to it in the future.

As regards the correlation between liquidity risk and other risks the financial institution faces, liquidity risk can result from its exposure to a combination of risks (such as credit risk, market risk, operational risk, reputational risk and strategic risk). The AMF expects the financial institution's overall risk management strategy to consider the correlation between the institution's liquidity risk and the other risks to which it is exposed.[7]

The financial institution should identify, for its subsidiaries or other related entities, the main underlying risks to which it may be exposed and should consider those risks in assessing liquidity adequacy.

With respect to market conditions, liquidity risk management depends on macroeconomic conditions (quantities of monetary assets available on the markets) and other conditions likely to influence the capacity of the markets to absorb asset sales quickly and without a significant decline in prices. While macroeconomic conditions result from medium-term economic phenomena, market liquidity depends on investor confidence in the quality of the assets being traded and borrowers' solvency. Consequently, market liquidity may suddenly dry up. In this regard, the AMF expects the financial institution to regularly monitor market conditions and their impacts on its liquidity risk.

In conclusion, a financial institution should clearly identify its sources of liquidity risk and the impacts of those sources on its risk profile and liquidity position.

3.2 Management of intraday risk and collateral

[7] Autorité des marchés financiers. *Integrated Risk Management Guideline.*

The AMF expects financial institutions, based on their risk exposure, to actively manage their intraday liquidity positions and risks in order to meet payment and settlement obligations on a timely basis, both under both normal and crisis conditions.

To effectively manage and monitor its net funding requirements, a financial institution should have the ability, when it is exposed to liquidity risk, to calculate liquidity positions on an intraday basis, on a day-to-day basis for the shorter time horizons, and over a series of more distant time periods thereafter. The management information system should be used in day-to-day liquidity risk management to monitor compliance with the financial institution's established policies, procedures and limits.

In addition, institutions exposed to liquidity risk should design stress scenarios[8] that detect, on a daily basis, events that may disrupt the smooth functioning of payment and settlement systems and should have contingency plans to manage them. In this regard, financial institutions should control the outflow of funds and monitor the use of intraday credit. They should also monitor their ability to access sufficient levels of intraday funds.

Financial institutions should also monitor market developments and the changes affecting their credit rating or financial position in order to take expected actions, such as the requirement for additional collateral.

As for collateral management, a financial institution should diversify its sources of collateral. It should also actively manage its collateral positions (by differentiating between encumbered and unencumbered assets) and should monitor the legal entity and physical location where collateral is being held and how it may be mobilized in a timely manner.

3.3 Measurement of liquidity risk

The AMF expects financial institutions to establish liquidity risk metrics based on a coherent and robust methodology commensurate with their risk profile, size, nature and complexity.

Measuring liquidity risk involves estimating both the financial institution's liquidity needs and its ability to meet its commitments as and when they come due. For this purpose, the AMF expects the financial institution to adopt measures that reflect its risk profile.

The financial institution should have a liquidity needs forecasting model that takes into consideration trends (short-, medium- and long-term) and cycles (weekly, monthly and yearly) affecting liquidity, whether they relate to the institution's particular activities or to market conditions.

In order to obtain a forward-looking view of liquidity risk exposures, a financial institution should use metrics that project cash flows and future liquidity positions over various time horizons. Such prospective measures should span short time horizons (e.g., five days, one month). However, given that funding gaps are identifiable over a longer horizon, prospective measures should also span longer periods. The prospective measures should identify the institution's vulnerabilities to liquidity risk under both normal and crisis conditions.

In addition, a financial institution should verify that its medium- and long-term funding sources (securitization, issuance of medium- to long-term securities, bonded debt, etc.) will be made available to it under adverse

8 Autorité des marchés financiers. *Ligne directrice sur les normes relatives à la suffisance des liquidités*.

scenarios. An institution facing adverse liquidity conditions will often not have ongoing access to the various sources of funding, a factor it should consider in prospectively managing its liquidity.

The AMF also expects financial institutions to take steps to ensure that their liquidity risk assumptions are reasonable and appropriate, documented and periodically reviewed for validity. To do this, financial institutions should deploy appropriate processes and control mechanisms to guarantee data quality and ensure sound decision making.

Assumptions on the liquidity of certain positions are of particular importance. Consequently, the key assumptions used should be analyzed to determine their continuing validity in view of existing and potentially changing market conditions, including significant unexpected withdrawals and payments or changes in the external market environment.

The AMF recognizes that assumptions can vary from one financial institution to another. Nonetheless, the financial institution should be able to justify the assumptions used to estimate its liquidity risk.

3.4 Holding liquid assets

> The AMF expects financial institutions to hold an appropriate amount of liquid assets to meet their requirements adequately in normal times and in times of crisis. Financial institutions should also hold high-quality and diversified liquid assets and have access to stable funding sources.

The financial institution should conduct an annual internal assessment of the liquidity risk management framework. The assessment should be documented and include the following information:

- identification of the major liquidity and funding risks to which the institution is exposed;
- a description of the process for identifying, monitoring and measuring such risks;
- a description of the techniques and resources used to manage and mitigate such risks.

The liquidity risk management framework should allow positions to be monitored against established internal limits and enable risk factors that could result in breaches of those limits to be identified and managed in light of currently available and future liquidity.

The AMF also expects each financial institution to develop high-quality, diversified, internal liquidity cushions and stable sources of funding, which will constitute its stock of liquid assets.

Financial institutions must define which assets and which future inflows may be considered available liquidity for assessing the adequacy of their level of liquidity. Therefore, they must differentiate between assets that will very likely remain liquid during times of stress and assets that may be used solely to obtain liquidity from designated liquidity providers.[9] Internal limits should be set for these two components, and a clear link should be established between the targeted size of high-quality liquid assets and liquidity risks that may materialize over a time horizon consistent with the business model.

If required, the financial institution may use these stocks of unencumbered, high-quality liquid assets to be held as insurance against a range of liquidity stress events, including those involving the loss or impairment of unsecured and typically available secured funding sources. There should be no legal, regulatory or operational impediment to using these assets to obtain funding. In addition, the stocks of liquid assets should be designed to meet stress test requirements at all times.

[9] Examples: Bank of Canada or deposit insurance fund.

The AMF expects the financial institution to establish limits regarding the appropriate level of liquid assets it should maintain at all times in light of its liquidity risk profile.

The financial institution should identify the types, qualities and quantities of liquid assets that must be held in order to meet its liquidity needs.

The financial institution should base its analysis on such criteria as:

- the market's ability to absorb the asset, the time required to liquidate it and the selling price;
- percentage held;
- the rating assigned to the asset by a rating agency;
- the currency of the asset;
- the maturity date, in view of a possible redemption or early sale;
- the possibility of pledging the asset as collateral to borrow funds or as part of repurchase agreements;
- the concentration by type of asset, counterparty, geographic location and industry.

The financial institution should ensure that its liquidity risk management process includes measurement of the liquidity costs, benefits and risks implicit in all significant business activities, including activities that involve the creation of contingent exposures which may not immediately have a direct balance sheet impact.

This assignment of liquidity costs should incorporate factors related to the anticipated holding periods of assets and liabilities, their market liquidity risk characteristics and any other relevant factors, including the benefits from having access to relatively stable sources of funding, such as some types of retail deposits.

The quantification and attribution of these risks should be explicit and transparent and take into account how liquidity would be affected under stressed conditions.

The analytical framework should be reviewed to reflect evolving business and financial market conditions and so maintain the appropriate alignment of risk-taking incentives with liquidity risk exposures. Moreover, liquidity risk costs, benefits and risks should be addressed explicitly in the new product approval process.

Financial institutions should also define which funding sources can be considered stable for the purpose of assessing the adequacy of funding sustainability. They should also assess the stability of their funding profile based on the diversity (or the concentration) of their liquidity providers, markets and funding products and assess their market access in terms of volume and pricing, taking into account current asset encumbrance and expected changes in this when executing the funding plan.

3.5 Impact of financial institution's level of capitalization on liquidity risk management

> The AMF expects financial institutions to consider the importance of capital adequacy in managing liquidity risk and, consequently, the potential impact of a liquidity crisis on their solvency.

While adequate capitalization contributes to a better rating for a financial institution, thereby improving funding costs and availability, capital is not an appropriate cushion in the event of a liquidity crisis. Moreover, the assets of an adequately capitalized financial institution may not be sufficiently liquid in a crisis. By contrast, a financial institution may have sufficient liquidity without having adequate capitalization. Similarly, a financial institution's level of capitalization can affect its ability to obtain liquidity in a crisis. A financial institution whose solvency is at risk could face costly risk premiums or reduced funding or could even be denied funding.

Therefore, the link between liquidity risk and capital adequacy should be properly considered in the liquidity risk management strategy, scenario analyses, stress tests and contingency plan.

3.6 Management of liquidity risk through asset-liability management[10]

> The AMF expects financial institutions to structure their assets so as to have sufficient liquid funds available and hold diverse marketable securities so they can meet their obligations when they come due.

A financial institution's liquidity profile depends on both its assets and liabilities and varies according to market conditions. Asset-liability management (ALM) involves matching the cash flows from assets with those from liabilities in normal conditions, in times of stress or in a disaster.

Financial institutions should therefore establish an ALM strategy that clearly specifies the nature, role and scope of ALM activities and the relationship of those activities to product development, pricing functions and investment management. This ALM strategy should consider the interdependence that exists between all of the institution's assets and liabilities while acknowledging that the correlations may not be linear.

The AMF recognizes that there are no "one size fits all" formulas that can be applied to financial institutions. As a result, each financial institution should choose appropriate measurement tools, such as liquidity ratios and cash flow modelling, to determine its exposure to liquidity risk.

Therefore, in order to implement ALM, the financial institution should be able to identify the potential liquidity risks associated with the early repayment of loans or the early cancellation of insurance contracts.

Losses due to liquidity risk can also occur when a financial institution needs to borrow unexpectedly or sell assets at a price that is lower than their market value. With this in mind, financial institutions should ensure, on an ongoing basis, that their ALM is responsive to market conditions.

The financial institution should also structure its assets to meet its short-term cash flows. It should have a plan to deal with unexpected cash outflows either by holding additional liquid assets or having an emergency line of credit.

Furthermore, the financial institution should ensure that the average life of a block of liabilities is maintained within a specific range of the average life of the matched assets, and that the impact of a change in interest rates will be within tolerance limits.

3.7 Intragroup management

> The AMF expects financial institutions to consider the liquidity management arrangements in effect within their financial group that could have an impact on their liquidity risk management.

[10] International Association of Insurance Supervisors. ICP 16 *Enterprise Risk Management for Solvency Purposes*, October 2011. International Association of Insurance Supervisors. *Standard on Asset-Liability Management, Standard N° 13*, October 2006. Basel Committee on Banking Supervision, Bank for International Settlements. *Principles for Sound Liquidity Risk Management and Supervision*, September 2008. Gilbert, Charles, International Actuarial Association, *IAA Risk Book - Asset Liability Management. Techniques and Practices for Insurance Companies*, Chapter 13, 2016.

Intragroup liquidity management arrangements may significantly influence the risk profile, profitability, capitalization and reputation of a financial institution. On the one hand, the financial institution may be required to provide liquidity to the other members of the group and, on the other hand, funds provided to the financial institution by other members of the group may be withdrawn or cancelled, particularly in the event of a crisis.

The financial institution's liquidity risk management strategy should take into consideration the interdependencies between the various members of the same group in terms of liquidity and the impacts of these interdependencies on the financial institution's liquidity risk.

The financial institution should actively monitor and control its liquidity risk exposures and funding needs within and across legal entities, taking into account legal, regulatory and operational limitations to the transferability of liquidity.

While cross-entity funding channels can help relieve liquidity pressures at one entity, a financial institution should consider establishing internal limits on intragroup liquidity risk to mitigate the risk of contagion under stress. The financial institution also may establish limits at the subsidiary and branch level to restrict the reliance of related entities on funding from elsewhere in the institution. Internal limits also may be set for each currency used by the institution. The limits should be stricter where ready conversion between currencies is uncertain, particularly in stress situations.

In addition, assumptions regarding the transferability of funds and collateral should be transparent in liquidity risk management plans that are available for supervisory review. An institution's assumptions should fully consider regulatory, legal, accounting, credit, tax and internal constraints on the effective movement of liquidity and collateral. They should also consider the operational arrangements needed to transfer funds and collateral across entities and the time required to complete such transfers under those arrangements.

Where the financial institution is part of a group, the AMF is of the opinion that the financial institution continues to be responsible for its own liquidity risk management, even if such management is carried out at the group level.

3.8 Scenario analysis and stress tests

> The AMF expects financial institutions to analyze liquidity risk based on various stress scenarios affecting specifically or more generally the entire market in order to ensure that its current exposures to liquidity risk remain aligned with the tolerance levels they have set. Financial institutions should also carry out stress tests to adapt their liquidity risk management strategies, policies and positions and to develop effective contingency plans.

In the context of liquidity risk management, scenario analyses and stress tests should focus on the provisions of the *Stress Testing Guideline*[11] and, particularly, the following:

- Potential tightening or disruption of unsecured and secured loans markets
  - Simulations based only or predominantly on unsecured loans implicitly assume that secured loans will always be available in exchange for high-quality assets. In the event confidence in the interbank market has been shaken, this assumption may not be valid.

[11] Autorité des marchés financiers. *Stress Testing Guideline*.

- Prolonged unavailability of medium- and long-term funding sources (securitization, issuance of medium- to long-term securities, bonded debt, etc.)
  - The simulation should reflect the correlation between short-term markets (interbank lending, repurchase and reverse repurchase agreements, etc.) and medium- to long-term markets. The assumption that in the event of a crisis, a financial institution will ultimately be able to rely on short-term funding may not be supported if the liquidity crisis undermines market confidence.
- Limits to the diversity of funding sources in the event of a crisis
  - In a crisis, the securitization market may be completely frozen, the bond market may be partially frozen and the interbank market may incur lower trading volumes and post shorter maturities. The simulation should also assume that markets may be volatile in various foreign currencies simultaneously.
- The ability to convert liquidity from one currency to another during a crisis
  - In a crisis, the financial institution may not be able to do so in a timely manner, for the necessary amounts or at the usual cost.
- Risks related to products such as asset-backed commercial paper and their potential impact on reputational risk.
  - For example, a financial institution that is acting as a promoter of a structured product may decide to take on the responsibility for financing the product in a crisis, even if it is not legally bound to do so.

The results of scenario analyses and stress tests should, on the one hand, enable the financial institution to identify potential liquidity risk management deficiencies and, on the other hand, enable it to establish or amend its liquidity risk management strategies in order to remedy such deficiencies (e.g., revising limits, reducing exposures, diversifying sources of financing and accessing lines of credit).

Limits should be established based on the assessment of the financial institution's liquidity position and reflect the financial institution's risk tolerance. They could serve as crisis indicators for purposes of the financial institution's contingency plan and enable the institution to identify weaknesses in its liquidity risk management.

3.9 Public disclosure[12]

The AMF expects financial institutions to disclose useful and relevant information as needed to inform interested parties about their liquidity positions and the soundness of their liquidity risk management framework.

Disclosure of useful and relevant information should be based on the financial institution's strategic model and liquidity risk profile. Disclosure should also take into account the functions of the organization that are involved in liquidity risk management.

This information might include, for example:

- an organizational structure and an internal liquidity risk management framework;

[12] Basel Committee on Banking Supervision. *Pillar 3 disclosure requirements – consolidated and enhanced framework*, March 2017, Table LIQA, p. 56. International Association of Insurance Supervisors. *Insurance core principles, standards, guidance and assessment methodology Draft revised ICP 20 (Public Disclosure) for public consultation*, June 2018, p. 2.

- the roles and responsibilities of the board of directors, senior management and special committees in the design and operation of the framework;
- policies on diversification in the sources and tenor of funding;
- an explanation of how stress tests are used;
- a description of liquidity risk tolerance and a demonstration of how compliance with this tolerance is assessed;
- an outline of contingency funding plans;
- the policy on maintaining liquidity reserves;
- the inclusion of quantitative measures such as the composition and size of the stock of liquid assets, the values of internal ratios, balance sheet and off-balance sheet items, the concentration limits on collateral pools and sources of funding (both products and counterparties), liquidity exposures and funding needs at the level of individual legal entities, foreign branches and subsidiaries, taking into account legal, regulatory and operational limitations on the transferability of liquidity, and a description of the metrics used and the limits placed on the values of those metrics.

4. Mitigation of liquidity risk

4.1 Diversification of funding sources

> The AMF expects financial institutions to maintain diversified and ongoing sources of funding.

A financial institution should avoid any potential concentration of certain sources of funding.

To this end, the financial institution should analyze the various characteristics of its liabilities and their impact on its liquidity position in light of the following:

- maturities of liabilities and their volatility;
- percentage of holdings of secured and unsecured funding;
- reliance on:
  - a single provider of funds or on a related group of providers of funds;
  - a single product or financial instrument (e.g., interbank loans and repurchase agreements);
  - intragroup financing.
- the geographic locations of the funds providers and their industries or areas of activity.

In order to limit the concentration of volatile liabilities, the financial institution should analyze the various conditions that apply to its liabilities (e.g., penalties for early withdrawal, interest rate revision clauses, etc.) in order to identify:

- liabilities that are stable even in times of crisis;
- liabilities likely to be withdrawn gradually after the first signs of a crisis;
- liabilities withdrawn immediately.

The objective is to estimate and maintain an appropriate amount of primary funding and minimize reliance on volatile sources of funding. Concentration limits should be clearly established and monitored by the liquidity risk control systems.

4.2 Market access

> The AMF expects a financial institution to regularly review its ability to obtain market funding and maintain a relationship of confidence with its principal providers of funds in normal times and in times of stress.

A financial institution should ensure that it has opportunities to borrow or issue debt securities on the market if necessary, even during a crisis. The financial institution should also expand its funding opportunities and develop solid and lasting relationships with funds providers.

The financial institution should be able to assess its ability to obtain funding in local currency and foreign currencies on a daily and weekly basis. It should ensure that its ability to obtain funding adequately covers its liquidity requirements.

When assessing its ability to obtain funding, the financial institution should take the following factors into consideration, among others:

- size and volumes of market transactions;
- market share held;
- credit limits imposed by lenders;
- market perception;
- market conditions;
- its borrowing experience and history.

To assess its ability to obtain funding, the financial institution could also test the market even when it does not have an immediate funding need.

In addition, the financial institution should maintain strong relationships with principal providers of funds. It should, where applicable, negotiate favourable lines of credit in advance with its key lenders as a preventive measure in the event of a crisis.

4.3 Management of foreign currency liquidity risk

> The AMF expects financial institutions to have an appropriate process for managing their liquidity positions with respect to the principal foreign currencies used in their operations.

The financial institution could use foreign currency deposits or loans in order to fund a portion of its liquidity requirements in local currency or foreign currencies. The financial institution could also convert liquidity in local currency in order to meet foreign currency liquidity needs.

In both cases, it should take the following factors into consideration:

- the convertibility of each currency, the volatility of the exchange rate, and the delay for obtaining foreign currency funds;
- foreign market conditions, including their liquidity and interest rate levels;
- the impact of a potential liquidity crisis on foreign markets.

The financial institution should also set limits for its liquidity risk exposure resulting from its transactions between local currency and the major foreign currencies.

5. Crisis management

5.1 Contingency plan

> The AMF expects financial institutions to establish a contingency plan for managing any liquidity crisis adequately, regardless of its severity or duration.

The principal objective of the contingency plan should be to identify and document the various processes to be implemented and steps to be taken in order to manage a liquidity crisis effectively and efficiently.

The results of the scenario analyses and stress tests should be incorporated into the contingency plan. These results should be used as the basis for identifying the various crises that could affect the financial institution's liquidity and estimating their severity.

The financial institution should make a list of early warning indicators for identifying a possible liquidity crisis and triggering the implementation of the contingency plan. These indicators could, for example, include the following:

- rapid asset growth, especially if funded with potentially volatile liabilities;
- high concentration of certain assets or sources of funding;
- repeated breaches of internal limits and limits set by the regulator;
- heightened risk associated with a financial product or service (e.g., rising negative trend in delinquencies);
- significant deterioration in profitability, asset quality and overall financial condition of the institution (e.g., credit rating downgrade);
- difficulty in obtaining market funding or inability to access such funding (e.g., rising funding costs);
- collateral requirements or requests for additional collateral from lenders for exposure to credit risk;
- lowering or elimination of lines of credit granted to the institution by counterparties;
- deterioration in cash flow positions due to greater mismatching of maturities, particularly short-term maturities;
- increase in deposit withdrawals for short-term periods.

Liquidity risk control processes should enable the financial institution to thoroughly monitor all indicators of a potential liquidity crisis.

Depending on the severity and duration of the anticipated liquidity crisis, the contingency plan should, among other things:

- specify the roles and responsibilities of all parties;
- identify the information and data necessary for decision-making and ensure they are available in a timely manner and on a continuous basis throughout the crisis;
- define the series of steps to be taken with respect to clients, market participants, the media, the regulatory agency and compensation bodies, over a fixed timeframe, determine the potential impact of these actions on market perception, the reputation of the financial institution and its solvency;
- establish procedures for offsetting liquidity deficiencies in a crisis, including the circumstances under which each step is to be taken;

- identify the various sources of liquidity, their availability, the conditions for their use, their reliability and the order of priority in which they are to be used; also assess the costs of alternative funding strategies;
- include a communications protocol to be adopted during the crisis.

Proper management of disclosure will help financial institutions to lessen the impact on their reputation and thereby prevent a potential massive withdrawal of funds or higher financing costs. They should therefore maintain regular and effective communication with the AMF, their largest lenders, credit rating agencies, the media, clients and compensation bodies.

Financial institutions should ensure that all parties involved at every level of the contingency plan understand their roles and responsibilities and are kept informed of any changes to the plan.

Finally, the contingency plan should be reviewed and updated regularly in light of such factors as the most recent changes in the financial institution's organizational structure, changes in practices, and market conditions. The contingency plan should also be tested to ensure that it is effective and appropriate.