AUTORITÉ DES MARCHÉS FINANCIERS

LIQUIDITY ADEQUACY GUIDELINE

January 2015

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Abbreviations

ABBREVIATIONS USED	EXPRESSIONS
ALA	Alternative Liquidity Approach
ASF	Available Stable Funding
BCBS	Basel Committee on Banking Supervision
BIS	Bank for International Settlements
CC	Central counterparty
CCF	Credit conversion factor
CICA	Canadian Institute of Chartered Accountants
CLF	Committed Liquidity Facility
CMB	Canada Mortgage Bonds
CPSS	Committee of Payments and Settlement Systems
ECAI	External Credit Assessment Institution
FSCA	Act respecting financial services cooperatives
GAAP	Generally Accepted Accounting Principles
HQLA	High-Quality Liquid Assets
IFRS	International Financial Reporting Standards
IOSCO	International Organization of Securities Commissions
LCR	Liquidity Coverage Ratio
LVTS	Large Value Transfer System
NCCF	Net Cumulative Cash Flow
NHA	National Housing Act
NSFR	Net Stable Funding Ratio
RCLF	Restricted-use Committed Liquidity Facility

ABBREVIATIONS USED	EXPRESSIONS
RMBS	Residential Mortgage-Backed Securities
RSF	Required Stable Funding
TCSCA	*An Act respecting trust companies and savings companies*
TRS	Total Return Swap

Introduction

An Act respecting financial services cooperatives ("FSCA")[1] and *An Act respecting trust companies and savings companies* ("TCSCA")[2] empower the *Autorité des marchés financiers* (the "AMF") to issue liquidity adequacy guidelines to institutions governed by these statutes.[3]

This Guideline is derived from the provisions introduced by the Basel Committee on Banking Supervision ("Basel Committee" or "BCBS") and the measurement framework set up by the AMF to assess the liquidity adequacy requirements of financial institutions. It also allows the AMF to provide financial institutions with prudential oversight standards based on internationally established standards for liquidity risk.

The following publications of the Bank for International Settlements (BIS) issued by the Basel Committee were used and incorporated into this Guideline:

- *Basel III: The Net Stable Funding Ratio* (October 2014)
- *Frequently Asked Questions on Basel III Coverage Ratio Framework* – January 2013 (April 2014)
- *Annex : Revisions to Basel III: The Liquidity Coverage Ratio and Liquidity Risk Monitoring Tools* – January 2013
- *Basel III: The Net Stable Funding Ratio* (Consultative Document - January 2014)
- *Monitoring tools for intraday liquidity management* (April 2013)
- *Basel III: The Liquidity Coverage Ratio and Liquidity Risk Monitoring Tools* (January 2013), and
- *Basel III: International framework for liquidity risk measurement, standards and monitoring* (December 2010).

This Guideline presents the liquidity standards that must be respected by all financial institutions (see the scope of application). It is divided into six chapters, as follows:

Chapter 1 Overview
Chapter 2 Liquidity Coverage Ratio (LCR)
Chapter 3 Monitoring tools
Chapter 4 Monitoring tools for intraday liquidity management
Chapter 5 Net Cumulative Cash Flow (NCCF)
Chapter 6 Net Stable Funding Ratio (NSFR)

1 CQLR, c. C-67.3.

2 CQLR, c. S-29.01.

3 Section 565 (1) FSCA and section 314 (1) TCSCA.

Scope of application

The *Standard Adequacy Guideline* applies to credit unions not members of a federation, financial services cooperatives, trust companies and savings companies governed by the following statutes:

- *An Act respecting financial services cooperatives,* CQLR, c. C-67.3
- *An Act respecting trust companies and savings companies*, CQLR, c. S-29.01

In the case of financial services cooperatives, it applies to the "entity" as defined in the scope of application of chapter 1 of the *Adequacy of Capital Base Guideline.*[4] As regards the other institutions concerned, this Guideline applies to financial institutions operating independently as well as to those operating as members of a financial group.[5]

The generic expressions "financial institution" and "institution" are used to refer to all entities contemplated by the scope of application.

International Financial Reporting Standards (IFRS)

International Financial Reporting Standards ("IFRS") have replaced Canadian Generally Accepted Accounting Principles ("GAAP") for the preparation of financial statements of Canadian publicly accountable enterprises with fiscal years beginning January 1, 2011. Therefore, IFRS apply for the purposes of this Guideline.

Effective date and updates

The *Liquidity Adequacy Guideline* is effective as of January 1, 2015.

This Guideline will be updated based on national and international developments in liquidity requirements and observations noted during liquidity monitoring of financial institutions.

[4] Autorité des marchés financiers, *Adequacy of Capital Base Guideline* (financial services cooperatives) (available in French only), January 2014 and subsequent.
http://www.lautorite.qc.ca/files/pdf/reglementation/lignes-directrices-insti-depot/ld_capital_coops_2014.pdf

[5] For the purposes of this Guideline, "financial group" refers to any group of legal persons composed of a parent company (financial institution or holding company) and legal persons affiliated therewith.

Chapter 1. Overview

1.1 Objective

Outlined below is an overview of the liquidity adequacy requirements for financial institutions.

The work undertaken by the Basel Committee to improve liquidity requirements for financial institutions resulted in the publication of several documents, as mentioned earlier.

In order to provide financial institutions with consistent prudential oversight standards that are comparable with international standards established in respect of liquidity requirements, the AMF incorporates the provisions of the Basel Committee in this document.

These provisions contain the methodologies underlying a series of liquidity measures that will be used by the AMF to assess the adequacy of liquidity of a financial institution. Thus, the use of these indicators will allow the AMF to appreciate the adequacy of an institution's liquidity position.

1.2 Scope

In keeping with Principle 6 of the BCBS's Sound Principles[6] and Principle 5 of AMF's *Liquidity Risk Management Guideline,*[7] an institution should actively monitor and control liquidity risk exposures.

However, this management should take into account individual legal entities, foreign branches and subsidiaries, and the group as a whole, taking into account legal, regulatory and operational limitations to the transferability of liquidity. [BCBS, January 2013, paragraph 166]

1.3 Individual liquidity metrics and definitions

AMF Note

The AMF expects financial institutions to calculate the Net Stable Funding Ratio (NSFR), even though the effective date suggested by the BCBS for this minimum standard is January 1, 2018.

This Guideline covers multiple quantitative liquidity measures including the Liquidity Coverage Ratio (LCR), the Net Stable Funding Ratio (NSFR), the liquidity monitoring tools, and a set of intraday liquidity monitoring tools.

6 Basel Committee on Banking Supervision, *Principles for Sound Liquidity Risk Management and Supervision*. http://www.bis.org/publ/bcbs144.htm

7 Autorité des marchés financiers, *Liquidity Risk Management Guideline*, April 2009.

Each of these liquidity measures offers a different perspective on the liquidity adequacy of an institution as no one can measure on its own and may present a comprehensive picture (see Annex 1 for combining the tools).

The **Liquidity Coverage Ratio** (LCR) aims to ensure that an institution has an adequate stock of unencumbered high-quality liquid assets (HQLA) that consists of cash or assets that can be converted into cash at little or no loss of value in private markets, to meet its liquidity needs for a 30-day liquidity stress scenario. At a minimum, the stock of unencumbered HQLA should enable the institution to survive until Day 30 of the stress scenario, by which time it is assumed that appropriate corrective actions can be taken by management and supervisors, or that the institution can be resolved in an orderly way. Furthermore, it gives the central bank additional time to take appropriate measures, should they be regarded as necessary. [BCBS, January 2013, par. 16]

The LCR, by significant currency metric, allows both the institution and the regulators to track potential currency mismatch issues that could arise. A currency is considered "significant" if the aggregate liabilities denominated in that currency amounts to 5% or more of the institution's total liabilities. [BCBS, January 2013, par. 209]

The definition of the stock of high-quality foreign exchange assets and total net foreign exchange cash outflows should mirror those of the LCR for common currencies[8]. [BCBS, January 2013, par. 210]

A currency is considered **"significant"** if the aggregate liabilities denominated in that currency amount to 5% or more of the bank's total liabilities. [BCBS, January 2013, par. 211]

The **Net Stable Funding Ratio (NSFR)** is a standard that will require institutions to maintain a stable funding profile in relation to the composition of their assets and off-balance sheet activities. A sustainable funding structure is intended to reduce the likelihood that disruptions to an institution's regular sources of funding will erode its liquidity position in a way that would increase the risk of its failure and potentially lead to broader systemic stress.

The NSFR aims to limit over-reliance on short-term wholesale funding during times of buoyant market liquidity and encourage better assessment of liquidity risk across all on-and-off balance sheet items.

In addition, the NSFR approach offsets incentives for institutions to fund their stock of liquid assets with short-term funds that mature just outside the LCR's 30-day horizon. [BCBS January 2014, par. 1]

The **Net Cumulative Cash Flow (NCCF)** is a tool that measures an institution's cash flows beyond the 30 day horizon in order to capture the risk posed by funding mismatches between assets and liabilities, after the application of assumptions around the functioning of assets and modified liabilities (i.e. where rollover of certain liabilities is

[8] Cash flows from assets, liabilities and off-balance sheet items will be computed in the currency that the counterparties are obliged to deliver to settle the contract, independent from the currency to which the contract is indexed (or "linked"), or the currency whose fluctuation it is intended to hedge.

permitted). The NCCF measures an institution's cash flow horizon both on the basis of the consolidated balance sheet as well as by major individual balance sheets and components. The metric helps identify gaps between contractual inflows and outflows for various time bands over and up to a 12 month time horizon, which indicate potential liquidity shortfalls an institution may need to address.

The **liquidity coverage monitoring tools** capture specific information related to a bank's cash flows, balance sheet structure, available unencumbered collateral and certain market indicators.

The **contractual maturity mismatch** profile identifies the gaps between the contractual inflows and outflows of liquidity for defined time bands. These maturity gaps indicate how much liquidity an institution would potentially need to raise in each of these time bands if all outflows occurred at the earliest possible date. The NCCF, as described above and outlined in Chapter 5, provides such a maturity mismatch metric. This metric provides insight into the extent to which the institution relies on maturity transformation under its current contracts. [BCBS, January 2013, par. 17]

The **concentration of funding** is meant to identify the sources of wholesale funding that are of such significance that withdrawal of this funding could trigger liquidity problems. The metric thus encourages the diversification of funding sources recommended in the Basel Commitee[9] and the AMF's *Liquidity Risk Management Guideline*. [BCBS, January 2013, par. 188]

Metrics related to available unencumbered assets provide the AMF with data on the quantity and key characteristics, including currency denomination and location, of institutions' available unencumbered assets. These assets have the potential to be used as collateral to raise additional HQLA or secured funding in secondary markets or are eligible at central banks and as such may potentially be additional sources of liquidity for the institution. [BCBS, January 2013, par. 201]

The **LCR by significant currency** metric allows both the institution and the AMF to track potential currency mismatch issues that could arise. A currency is considered "significant" if the aggregate liabilities denominated in that currency amount to 5% or more of the institution's total liabilities. [BCBS, January 2013, par. 209 and 211]

The **market-related monitoring tools** provide the AMF with high frequency market data with little or no time lag which can be used as early warning indicators in monitoring potential liquidity difficulties at institutions. This includes the monitoring of data at the following market-wide, financial sector, and institution-specific levels to focus on potential liquidity difficulties. [BCBS, January 2013, par. 214]

[9] Bank for International Settlements, *Principles for Sound Liquidity Risk Management and Supervision*, September 2008. http://www.bis.org/publ/bcbs144.htm

While there are many types of data available in the market, supervisors can monitor data at the following levels to focus on potential liquidity difficulties:

- market-wide information
- information on the financial sector
- institution-specific information

The **intraday liquidity monitoring tools** enable the AMF and the Bank of Canada, as the case may be (see Chapter 4), to better monitor an institution's management of intraday liquidity risk and its ability to meet payment and settlement obligations on a timely basis. Over time, the tools will also provide the AMF and the Bank of Canada with a better understanding of institutions' payment and settlement behavior.

1.4 Requirements associated with the metrics

The LCR requires that, without a situation of financial stress, the value of the ratio be no lower than 100% (i.e. the stock of HQLA should at least equal total net cash outflows over a 30-day horizon). Institutions are expected to meet this requirement continuously and hold a stock of unencumbered HQLA as a defence against the potential onset of liquidity stress.

However, the AMF adheres to the position of the BCBS stating that institutions may, during period of financial stress, use their stock of HQLA, thereby falling below 100%, as maintaining the LCR at 100% under such circumstances could produce undue negative effects on the institution and other market participants. The AMF will subsequently assess this situation and will adjust its response flexibly according to the circumstances. [BCBS, January 2013, par. 17]

The LCR will be introduced as planned on January 1, 2015, but the minimum requirement will be set at 60%[10] and rise in equal annual steps to reach 100% on January 1, 2019. This graduated approach, coupled with the revisions made to the 2010 publication of the liquidity standards, is designed to ensure that the LCR can be introduced without material disruption to the orderly strengthening of banking systems or the on-going financing of economic activity. [BCBS, January, 2013, paragraph 10]

AMF Note

Although, as mentioned above, the Basel Committee sets out a phase-in period, the AMF requires a financial institution to have a minimum LCR of 100% beginning January 1, 2015.

As for the foreign currency LCR is not a standard but a monitoring tool, it does not have an internationally defined minimum required threshold.

However, the AMF might set supervisory requirements for any of the suite of liquidity metrics as required. The AMF could, for example, consider setting a minimum

[10] Suggested transitional arrangements proposed by the Basel Commitee. See the AMF Note above for the application.

requirement for the LCR by significant currency measure on an institution-specific basis based on an evaluation of the institution's ability to raise funds in foreign currency market and the ability to transfer a liquidity surplus from one currency to another and across jurisdictions and legal entities to be limited.

As a general rule, the LCR by significant currency ratio should be higher for currencies in which the AMF evaluates an institution's ability to raise funds in foreign currency markets or the ability to transfer a liquidity surplus from one currency to another and across jurisdictions and legal entities to be limited. [BCBS, January 2013, par. 212]

The tools for intraday liquidity management outlined below are for purposes of monitoring only and do not have defined minimum required thresholds. However, the AMF might set supervisory requirements for these intraday liquidity metrics as required. [BCBS, April 2013, par. 6]

1.5 Frequency of calculation and regulatory reporting timeline

All metrics presented in this Guideline should be used by the institution on an ongoing basis to help monitor and control its liquidity risk. The time lag in reporting for each metric, as outlined below, should be considered the maximum time lag under normal conditions. The AMF might accelerate the time lag in reporting where circumstances warrant (e.g. in market-wide or idiosyncratic stress).[11]

The LCR should be used on an ongoing basis to help monitor and control liquidity risk. The LCR should be reported[12] to the AMF at least monthly, with the operational capacity to increase the frequency to weekly or even daily in stressed situations at the discretion of the AMF. The time lag in reporting should be as short as feasible and ideally should not exceed two weeks. [BCBS, January 2013, par. 162]

Moreover, an institution should notify the AMF immediately if its LCR has fallen or is expected to fall below 100%. [BCBS, January 2013, par. 163]

The NCCF[13] should be reported to the AMF monthly, with the operational capacity to increase the frequency to weekly or even daily in stressed situations at the AMF's discretion. The time lag in reporting should not surpass 14 days.

Institutions should also notify the AMF immediately if their NCCF has fallen, or is expected to fall, below the supervisory-communicated level.

The concentration of funding, available unencumbered assets and LCR by significant currency monitoring metrics should be reported to the AMF monthly. The time lag in reporting should not exceed 14 days.

11 "Idiosyncratic" means specific to the financial institution.

12 For the disclosure, the AMF will provide financial institutions with a reporting template that will include related instructions.

13 For the disclosure, the AMF will provide financial institutions with a reporting template that will include related instructions.

AMF Note

In 2015, the AMF will not require separate reporting of data related to the concentration of funding and available unencumbered assets monitoring tools. Instead, it will utilize the information submitted as part of other aspects of regulatory reporting (e.g. NCCF) to assess the information requested under these monitoring tools in 2015.

Institution-specific information related to the market-related monitoring tools should be provided to AMF on a weekly basis. The time lag in reporting should not surpass three business days.

The information contained in the monitoring tools for intraday liquidity management should be reported to the AMF and the Bank of Canada on a monthly basis. The time lag in reporting should not exceed two weeks.

The reporting of all of the above metrics, with the exception of the NSFR, intraday liquidity monitoring tools and other monitoring tools listed in the above AMF Note, will begin as at the first reporting date, as defined above by individual metric, following January 1, 2015. Reporting of the NSFR will begin as at the first quarterly reporting date following January 1, 2018.

AMF Note

The AMF will not require that institutions report on the suite of intraday liquidity monitoring tools beginning on the first reporting date following January 1, 2015. However, the AMF will continue to review the applicable implementation date for these metrics, which will be no later than January 1, 2017, and will discuss the proposed timing of rollout with institutions in advance of making a final decision.

Chapter 2. Liquidity coverage ratio

Notice

The following paragraphs are drawn from the Basel Committee on Banking Supervision's (BCBS) document entitled *Basel III: The Liquidity Coverage Ratio and Liquidity Risk Monitoring Tools*, published in 2013.

The AMF incorporates and adapts certain paragraphs of the document to facilitate comparability with national and international standards. The Basel numbering is maintained.

14. The Basel Committee has developed the liquidity coverage ratio (LCR) to promote the short-term resilience of the liquidity risk profile of financial institutions by ensuring that they have sufficient high quality liquidity assets (HQLA) to survive a significant stress scenario lasting 30 days.

15. The liquidity coverage ratio should be a key component of the prudential supervisory approach to liquidity risk, but must be supplemented by detailed supervisory assessments of other aspects of the institution's liquidity risk management framework in line with the *Principles for Sound Liquidity Risk Management and Supervision*[14] and AMF's *Liquidity Risk Management Guideline,*[15] the use of the monitoring tools, and, in due course, the NSFR.

    In addition, the AMF may require an individual institution to adopt more stringent standards or parameters to reflect its liquidity risk profile and AMF's assessment of its compliance with the Sound Principles.

2.1 Objective of the liquidity coverage ratio and use of high quality liquidity assets

16. This standard aims to ensure that a financial institution has an adequate stock of unencumbered HQLA that consists of cash or assets that can be converted into cash at little or no loss of value in private markets, to meet its liquidity needs for a 30-day liquidity stress scenario.

    At a minimum, the stock of unencumbered HQLA should enable the institution to survive until day 30 of the stress scenario, by which time it is assumed that appropriate corrective actions can be taken by management and supervisors, or that the institution can be resolved in an orderly way.

    Furthermore, it gives the central bank additional time to take appropriate measures, should they be regarded as necessary. As noted in the BCBS *Sound Principles and* AMF's *Liquidity Risk Management Guideline*, given the uncertain

[14] Bank for International Settlements, *Principles of Sound Liquidity Risk Management and Supervision – final document*, September 2008. http://www.bis.org/publ/bcbs144.htm

[15] Autorité des marchés financiers, *Liquidity Risk Management Guideline*, April 2009. http://www.lautorite.qc.ca/files/pdf/reglementation/lignes-directrices-toutes-institutions/2009mai26-ld-liquidite-en.pdf

timing of outflows and inflows, institutions are also expected to be aware of any potential mismatches within the 30-day period and ensure that sufficient HQLA are available to meet any cash flow gaps throughout the period.

17. The LCR builds on traditional liquidity "coverage ratio" methodologies used internally by institutions to assess exposure to contingent liquidity events. The total net cash outflows for the scenario are to be calculated for 30 days into the future.

The standard requires that, absent a situation of financial stress, the value of the ratio be no lower than 100%[16] (e.g. the stock of HQLA should at least equal total net cash outflows) on an ongoing basis because the stock of unencumbered HQLA is intended to serve as a defense against the potential onset of liquidity stress.

During a period of financial stress, however, institutions may use their stock of HQLA, thereby falling below 100%, as maintaining the LCR at 100% under such circumstances could produce undue negative effects on the institution and other market participants. The AMF will subsequently assess this situation and will adjust its response flexibly according to the circumstances.

HQLA is intended to serve as a defence against the potential onset of liquidity stress. During a period of financial stress, however, institutions may use their stock of HQLA, thereby falling below 100%, as maintaining the LCR at 100% under such circumstances could produce undue negative effects on the institution and other market participants.

The AMF will subsequently assess this situation and will adjust its response flexibly according to the circumstances.

18. The AMF's decisions regarding an institution's use of its HQLA should be guided by consideration of the core objective and definition of the LCR.

The AMF will exercise judgement in its assessment and account not only for prevailing macro-financial conditions, but also consider forward-looking assessments of macroeconomic and financial conditions. In determining a response, the AMF will be aware that some actions could be procyclical if applied under circumstances of market-wide stress.

a) The AMF will assess conditions at an early stage, and take actions if deemed necessary, to address potential liquidity risk.

b) The AMF will allow for differentiated responses to a reported LCR below 100%, which will be proportionate with the drivers, magnitude, duration and frequency of the reported shortfall.

[16] The 100 % threshold is the minimum requirement absent a period of financial stress, and after the phase-in arrangements are complete. References to 100 % may be adjusted for any phase-in arrangements in force.

c) The AMF will assess a number of institution- and market-specific factors in determining the appropriate response as well as other considerations related to both domestic and global frameworks and conditions. Potential considerations include, but are not limited to:

i. The reasons why the LCR fell below 100%. This includes use of the stock of HQLA, an inability to roll over funding or large unexpected draws on contingent obligations.

ii. In addition, the reasons may relate to overall credit, funding and market conditions, including liquidity in credit, asset and funding markets, affecting individual institution or all institutions, regardless of their own condition.

iii. The extent to which the reported decline in the LCR is due to an institution-specific or market-wide shock.

iv. An institution's overall health and risk profile, including activities, positions with respect to other supervisory requirements, internal risk systems, controls and other management processes, among others.

v. The magnitude, duration and frequency of the reported decline of HQLA.

vi. The potential for contagion to the financial system and additional restricted flow of credit or reduced market liquidity due to actions to maintain an LCR of 100%.

vii. The availability of other sources of contingent funding such as central bank funding,[17] or other actions by prudential authorities.

d) AMF will have a range of tools at its disposal to address a reported LCR below 100%. Institutions may use their stock of HQLA in both idiosyncratic and systemic stress events, although the AMF response may differ between the two.

i. At a minimum, an institution should present an assessment of its liquidity position, including the factors that contributed to its LCR falling below 100%, the measures that have been and will be taken and the expectations on the potential length of the situation. Enhanced reporting to the AMF should be commensurate with the duration of the shortfall.

[17] The BCBS *Sound Principles* and AMF *Liquidity Risk Management Guideline* require that an institution develops a Contingency Plan that clearly sets out strategies for addressing liquidity shortfalls, both institution-specific and market-wide situations of stress. This plan should, among other things, reflect central bank lending programmes and collateral requirements, including facilities that form part of normal liquidity management operations (e.g. the availability of seasonal credit).

ii. If appropriate, the AMF may also require actions by an institution to reduce its exposure to liquidity risk, strengthen its overall liquidity risk management, or improve its contingency plan.

iii. However, in a situation of sufficiently severe system-wide stress, effects on the entire financial system should be considered. Potential measures to restore liquidity levels should be discussed, and should be executed over a period of time considered appropriate to prevent additional stress on the financial institution and on the financial system as a whole.

iv. AMF's responses will be consistent with the overall approach to the prudential framework.

2.2 Definition of the liquidity coverage ratio

19. The scenario for the LCR standard entails a combined idiosyncratic and market-wide shock that would result in:

a) the run-off of a proportion of retail deposits;

b) a partial loss of unsecured wholesale funding capacity;

c) a partial loss of secured, short-term financing with certain collateral and counterparties;

d) additional contractual outflows that would arise from a downgrade in the institution's public credit rating by up to and including three notches, including collateral posting requirements;

e) increases in market volatilities that impact the quality of collateral or potential future exposure of derivative positions and thus require larger collateral haircuts or additional collateral, or lead to other liquidity needs;

f) unscheduled draws on committed but unused credit and liquidity facilities that the institution has provided to its clients; and

g) potential need for the institution to buy back debt or honour non-contractual obligations in the interest of mitigating reputational risk.

20. In summary, the stress scenario specified incorporates many of the shocks experienced during the crisis that started in 2007 into one significant stress scenario for which an institution would need sufficient liquidity on hand to survive for up to 30 days.

21. This stress test should be viewed as a minimum supervisory requirement for institutions. Institutions are expected to conduct their own stress tests to assess the level of liquidity they should hold beyond this minimum, and construct their own scenarios that could cause difficulties for their specific business activities. Such internal stress tests should incorporate longer time horizons than the one

mandated by this standard. Institutions are expected to share the results of these additional stress tests with the AMF.

22. The LCR has two components:

a) value of the stock of HQLA in stressed conditions; and

b) total net cash outflows, calculated according to the scenario parameters outlined below.

$$\frac{\text{Stock of HQLA}}{\text{Total net cash outflows over the next 30 days}} \geq 100\%$$

AMF Note

When calculating the LCR, financial institutions must consider the fact that a given entity or counterparty still belongs to the same category, regardless of the type of HQLA or inflows or outflows involved.

2.2.1 Stock of high quality liquidity assets

23. The numerator of the LCR is the "stock of HQLA".

Under the standard, institutions must hold a stock of unencumbered HQLA to cover the total net cash outflows (as defined below) over a 30-day period under the prescribed stress scenario. In order to qualify as "HQLA", assets should be liquid in markets during a time of stress and, ideally, be eligible for the Bank of Canada.

The following sets out the characteristics that such assets should generally possess and the operational requirements that they should satisfy.[18]

2.2.1.1 Characteristics of high quality liquidity assets

24. Assets are considered to be 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 monetised 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-sales even in times of stress.

[18] Refer to the sections on "Definition of HQLA" and "Operational requirements" for the characteristics that an asset must meet to be part of the stock of HQLA and the definition of "unencumbered" respectively.

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 the AMF in determining which assets, despite meeting the criteria of paragraphs 49 to 54, are not sufficiently liquid in private markets to be included in the stock of HQLA.

Fundamental characteristics

- **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,[19] 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 standardised, 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 strong 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:**[20] being listed increases an asset's transparency.

Market-related characteristics

- **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.

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

[20] "Exchange" is used to refer, for example, to TSX, NASDAQ, etc.

- There should be robust market infrastructures 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 (e.g. prices and haircuts) 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.

25. As outlined by these characteristics, the test of whether liquid assets are of "high quality" is that, by way of sale or repo, their liquidity-generating capacity is assumed to remain intact even in periods of severe idiosyncratic and market stress.

    Lower quality assets typically fail to meet that test. An attempt by an institution to raise liquidity from lower quality assets under conditions of severe market stress would entail acceptance of a large fire-sale discount or haircut to compensate for high market risk.

    That may not only erode the market's confidence in the institution, but would also generate mark-to-market losses for banks holding similar instruments and add to the pressure on their liquidity position, thus encouraging further fire sales and declines in prices and market liquidity. In these circumstances, private market liquidity for such instruments is likely to disappear quickly.

26. HQLA (except Level 2B assets as defined below) should ideally be eligible at the Bank of Canada[21] for intraday liquidity needs and overnight liquidity facilities.

    In the past, central banks have provided a further backstop to the supply of banking system liquidity under conditions of severe stress. Central bank eligibility should thus provide additional confidence that institutions are holding assets that could be used in events of severe stress without damaging the broader financial system.

    That in turn would raise confidence in the safety and soundness of liquidity risk management in the banking system.

[21] In most jurisdictions, HQLA should be central bank eligible in addition to being liquid in markets during stressed periods. In jurisdictions where central bank eligibility is limited to an extremely narrow list of assets, a supervisor may allow unencumbered, non-central bank eligible assets that meet the qualifying criteria for Level 1 or Level 2 assets to count as part of the stock (see *Definition of HQLA* beginning from paragraph 45).

27. It should be noted however, that the Bank of Canada eligibility does not by itself constitute the basis for the categorisation of an asset as “high quality”.

2.2.1.2 Operational requirements

28. All assets in the stock of HQLA are subject to the following operational requirements. The purpose of the operational requirements is to recognize that not all assets outlined in paragraphs 49-54 that meet the asset class, risk-weighting and credit-rating criteria should be eligible for the stock as there are other operational restrictions on the availability of HQLA that can prevent timely monetisation during a stress period.

29. These operational requirements are designed to ensure that the stock of HQLA is managed in such a way that the institution can, and is able to demonstrate that it can, immediately use the stock of assets as a source of contingent funds that is available for the institution to convert into cash through outright sale or repo, to fill funding gaps between cash inflows and outflows at any time during the 30-day stress period, with no restriction on the use of the liquidity generated.

AMF Note

Note that HQLA collateral held by an institution on the first day of the LCR horizon may count towards the stock of HQLA even if it is sold or reported forward.[22]

30. An institution should periodically monetize a representative proportion of the assets in the stock through repo or outright sale, in order to test its access to the market, the effectiveness of its processes for monetisation, the availability of the assets, and to minimize the risk of negative signalling during a period of actual stress.

31. All assets in the stock should be unencumbered.

“Unencumbered” means free of legal, regulatory, contractual or other restrictions on the ability of the institution 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).

Assets received in reverse repo and securities financing transactions that are held at the institution, have not been rehypothecated, and are legally and

[22] BCBS, April 2014, FAQ 15. http://www.bis.org/publ/bcbs284.pdf

[23] If an institution has deposited, pre-positioned or pledged Level 1, Level 2 and other assets in a collateral pool and no specific securities are assigned as collateral for any transactions, it may assume that assets are encumbered in order of increasing liquidity value in the LCR, i.e. assets ineligible for the stock of HQLA are assigned first, followed by Level 2B assets, then Level 2A and finally Level 1. This determination must be made in compliance with any requirements, such as concentration or diversification, of the Bank of Canada or a public sector entity.

contractually available for the institution's use can be considered as part of the stock of HQLA.

In addition, assets which qualify for the stock of HQLA that have been pre-positioned or deposited with, or pledged to, the central bank or a public sector entity (PSE) but have not been used to generate liquidity may be included in the stock.[23]

AMF Note

Assets received in collateral swaps or other securities financing transactions can be considered part of the stock of HQLA if they are held at the institution, have not been rehypothecated and are legally and contractually available for the institution's use.

Institutions may count the unused portion of HQLA-eligible collateral pledged with a clearing entity, such as a central counterparty (CCP), against secured funding transactions towards its stock of HQLA (with associated haircuts). If the institution cannot determine which specific assets remain unused, it may assume that assets are encumbered in order of increasing liquidity value, consistent with the methodology set out in footnote 24 of this document.

HQLA that is borrowed without any further offsetting transaction (i.e. no repo/reverse repo or collateral swap) where the assets will be returned or can be recalled during the next 30 days, should not be included in the stock of HQLA for either the lender or the borrower. As such, on the side of the borrower, these assets do not enter the LCR calculation. On the lender's side, these assets count towards the "other contractual inflows" amounting to their market value in the case of Level 2 assets after haircut.[24]

32. An institution should exclude from the stock those assets that, although meeting the definition of "unencumbered" specified in paragraph 31, the institution would not have the operational capability to monetise to meet outflows during the stress period. Operational capability to monetise assets requires having procedures and appropriate systems in place, including providing the function identified in paragraph 33 with access to all necessary information to execute monetisation of any asset at any time. Monetization of the asset must be executable, from an operational perspective, in the standard settlement period for the asset class in the relevant jurisdiction.

[23] If an institution has deposited, pre-positioned or pledged Level 1, Level 2 and other assets in a collateral pool and no specific securities are assigned as collateral for any transactions, it may assume that assets are encumbered in order of increasing liquidity value in the LCR, i.e. assets ineligible for the stock of HQLA are assigned first, followed by Level 2B assets, then Level 2A and finally Level 1. This determination must be made in compliance with any requirements, such as concentration or diversification, of the Bank of Canada or a public sector entity.

[24] BCBS April 2014, FAQ 16.

AMF Note

An HQLA-eligible asset received as a component of a pool of collateral for a secured transaction (e.g. reverse repo) can be included in the stock of HQLA (with associated haircuts) to the extent that it can be monetized separately.[25]

33. The stock should be under the control of the functions charged with managing the liquidity of the institution (e.g. the treasurer), meaning the function has the continuous authority, and legal and operational capability, to monetize any asset in the stock. Control must be evidenced either by maintaining assets in a separate pool managed by the function with the sole intent for use as a source of contingent funds, or by demonstrating that the function can monetise the asset at any point in the 30-day stress period and that the proceeds of doing so are available to the function throughout the 30-day stress period without directly conflicting with a stated business or risk management strategy.

    The asset proceeds are therefore available for the function throughout this period without directly conflicting with a business strategy or a risk management strategy.

    For example, an asset should not be included in the stock if the sale of that asset, without replacement throughout the 30-day period, would remove a hedge that would create an open risk position in excess of internal limits.

AMF Note

To meet the requirements set out in paragraph 33, the AMF will recognize liquidity contingency plans where the function charged with managing the liquidity of the institution (e.g. the treasurer) has continuous delegated authority to invoke the plan at any time.

34. An institution is permitted to hedge the market risk associated with ownership of the stock of HQLA and still includes the assets in the stock. If it chooses to hedge the market risk, the institution should take into account (in the market value applied to each asset) the cash outflow that would arise if the hedge were to be closed out early (in the event of the asset being sold).

35. In accordance with Principle 9 of the *Sound Principles* an institution "should monitor the legal entity and physical location where collateral is held and how it may be mobilized in a timely manner".

    Specifically, it should have a policy in place that identifies legal entities, geographical locations, currencies and specific custodial or bank accounts where HQLA are held.

[25] BCBS April 2014, FAQ 1(a).

In addition, the institution should determine whether any such assets should be excluded for operational reasons and therefore, have the ability to determine the composition of its stock on a daily basis.

36. As noted in paragraphs 171 and 172, qualifying HQLA that are held to meet statutory liquidity requirements at the legal entity or sub-consolidated level (where applicable) may only be included in the stock at the consolidated level to the extent that the related risks (as measured by the legal entity's or sub-consolidated group's net cash outflows in the LCR) are also reflected in the consolidated LCR.

Any surplus of HQLA held at the legal entity can only be included in the consolidated stock if those assets would also be freely available to the consolidated (parent) entity in times of stress.

37. In assessing whether assets are freely transferable for regulatory purposes, institutions should be aware that assets may not be freely available to the consolidated entity due to regulatory, legal, tax, accounting or other impediments. Assets held in legal entities without market access should only be included to the extent that they can be freely transferred to other entities that could monetise the assets.

38. In certain jurisdictions, large, deep and active repo markets do not exist for eligible asset classes, and therefore such assets are likely to be monetized through outright sale.

In these circumstances, an institution should exclude from the stock of HQLA those assets where there are impediments to sale, such as large fire-sale discounts which would cause it to breach minimum solvency requirements, or requirements to hold such assets, including, but not limited to, statutory minimum inventory requirements for market making.

39. Institutions should not include in the stock of HQLA any assets, or liquidity generated from assets, they have received under right of rehypothecation, if the beneficial owner has the contractual right to withdraw those assets during the 30-day stress period.[26]

40. Assets received as collateral for derivatives transactions that are not segregated and are legally able to be rehypothecated may be included in the stock of HQLA provided that the institution records an appropriate outflow for the associated risks as set out in paragraph 116.

41. As stated in Principle 8 of the BCBS *Sound Principles*, an institution should actively manage its intraday liquidity positions and risks to meet payment and settlement obligations on a timely basis under both normal and stressed conditions and thus contributes to the smooth functioning of payment and

[26] Refer to paragraph 147 for the appropriate treatment if the contractual withdrawal of such assets would lead to a short position (e.g. because the institution had used the assets in longer-term securities financing transactions).

settlement systems. Institutions and the AMF should be aware that the LCR stress scenario does not cover expected or unexpected intraday liquidity needs.

42. While the LCR is expected to be met and reported in a local currency, institutions are expected to be able to meet their liquidity needs in each currency and maintain HQLA consistent with the distribution of their liquidity needs by currency. The institution should be able to use the stock to generate liquidity in the currency and jurisdiction in which the net cash outflows arise.

    As such, the LCR by currency is expected to be monitored and reported to allow the institution and the AMF to track any potential currency mismatch issues that could arise. In managing foreign exchange liquidity risk, the institution should take into account the risk that its ability to swap currencies and access the relevant foreign exchange markets may erode rapidly under stressed conditions. It should be aware that sudden, adverse exchange rate movements could sharply widen existing mismatched positions and alter the effectiveness of any foreign exchange hedges in place.

43. In order to mitigate cliff effects that could arise, if an eligible liquid asset became ineligible (e.g. due to rating downgrade), an institution is permitted to keep such assets in its stock of liquid assets for an additional 30 days. This would allow the institution additional time to adjust its stock as needed or replace the asset.

2.2.1.3 Diversification of the stock of high quality liquidity assets

44. The stock of HQLA should be well diversified within the asset classes themselves (except for sovereign debt of the institution's home jurisdiction or from the jurisdiction in which the institution operates; central bank reserves; central bank debt securities; and cash).

    Although some asset classes are more likely to remain liquid irrespective of circumstances, *ex-ante* it is not possible to know with certainty which specific assets within each asset class might be subject to shocks ex-post. Institutions should therefore have policies and limits in place in order to avoid concentration with respect to asset types, issue and issuer types, and currency (consistent with the distribution of net cash outflows by currency) within asset classes.

2.2.1.4 Definition of high quality liquidity assets

45. The stock of HQLA should comprise assets with the characteristics outlined in paragraphs 24-27. This section describes the type of assets that meet these characteristics and can therefore be included in the stock.

46. There are two categories of assets that can be included in the stock. Assets to be included in each category are those that the institution is holding on the first day of the stress period, irrespective of their residual maturity. "Level 1" assets can be included without limit, while "Level 2" assets can only comprise up to 40% of the stock.

47. The AMF may also choose to include within Level 2 an additional class of assets (Level 2B assets - see paragraph 53 below). If included, these assets should comprise no more than 15% of the total stock of HQLA. They must also be included within the overall 40% cap on Level 2 assets.

48. The 40% cap on Level 2 assets and the 15% cap on Level 2B assets should be determined after the application of required haircuts, and after taking into account the unwind of short-term securities financing transactions and collateral swap transactions maturing within 30 days that involve the exchange of HQLA. In this context, short term transactions are transactions with a maturity date up to and including 30 days.

48A. As stated in paragraph 48, the calculation of the 40% cap on Level 2 assets should take into account the impact on the stock of HQLA of the amounts of Level 1 and Level 2 assets involved in secured funding,[27] secured lending[28] and collateral swap transactions maturing within 30 days.

The maximum amount of adjusted Level 2 assets in the stock of HQLA is equal to two-thirds of the adjusted amount of Level 1 assets after haircuts have been applied. The calculation of the 40% cap on Level 2 assets will take into account any reduction in eligible Level 2B assets on account of the 15% cap on Level 2B assets.[29] [30]

AMF Note

For purposes of the LCR calculation, AMF will only require the size of an individual institution's pool of Level 2 and Level 2B assets to be calculated on an adjusted basis as noted in paragraph 48A. The AMF will, however, monitor the size of an institution's pool of Level 2 and Level 2B assets on an unadjusted basis as discussed in footnote 30.

48B. Further, the calculation of the 15% cap on Level 2B assets should take into account the impact on the stock of HQLA of the amounts of HQLA assets involved in secured funding, secured lending and collateral swap transactions maturing within 30 days. The maximum amount of adjusted Level 2B assets in the stock of HQLA is equal to 15/85 of the sum of the adjusted amounts of Level 1 and Level 2 assets, or, in cases where the 40% cap is binding, up to a maximum of 1/4 of the adjusted amount of Level 1 assets, both after haircuts[31] have been applied.

27 See definition in paragraph 112.

28 See definition in paragraph 145.

29 Bank for International Settlements, Basel Committee on Banking Supervision, *Liquidity coverage ratio and liquidity risk monitoring tools*, January 2013, Annex-1, par. 2.

30 When determining the calculation of the 15 % and 40 % caps, supervisors may, as an additional requirement, separately consider the size of the pool of Level 2 and Level 2B assets on an unadjusted basis.

31 Bank for International Settlements, Basel Committee on Banking Supervision *Liquidity coverage ratio and liquidity risk monitoring tools*, January 2013, Annex-1, par. 3.

48C. The adjusted amount of Level 1 assets is defined as the amount of Level 1 assets that would result after unwinding those short-term secured funding, secured lending and collateral swap transactions involving the exchange of any HQLA for any Level 1 assets (including cash) that meet, or would meet if held unencumbered, the operational requirements for HQLA set out in paragraphs 28 to 40.

The adjusted amount of Level 2A assets is defined as the amount of Level 2A assets that would result after unwinding those short-term secured funding, secured lending and collateral swap transactions involving the exchange of any HQLA for any Level 2A assets that meet, or would meet if held unencumbered, the operational requirements for HQLA set out in paragraphs 28 to 40.

The adjusted amount of Level 2B assets is defined as the amount of Level 2B assets that would result after unwinding those short-term secured funding, secured lending and collateral swap transactions involving the exchange of any HQLA for any Level 2B assets that meet, or would meet if held unencumbered, the operational requirements for HQLA set out in paragraphs 28 to 40.

In this context, short-term transactions are transactions with a maturity date up to and including 30 days. Relevant haircuts would be applied prior to calculation of the respective caps.[32]

[32] Bank for International Settlements, Basel Committee on Banking Supervision, *Liquidity coverage ratio and liquidity risk monitoring tool*s, January 2013, Annex 1, paragraph 4.

The formula for the calculation of the stock of HQLA is as follows:[33]

Stock of HQLA

= Level 1 + Level 2A + Level 2B
– Adjustment for 15% cap
– Adjustment for 40% cap

Where:

Adjustment for 15% cap

= Max (Adjusted Level 2B)
– 15
– 15/85 x (Adjusted Level 1 = Adjusted Level 2A), Adjusted Level 2B
– 15/60 x (Adjusted Level 1, 0)

And:

Adjustment for 40% cap

= Max Adjusted Level 2A + Adjusted Level 2B – Adjustment for 15%

$$\Big(\text{(Adjusted Level 2A + Adjusted Level 2B - Adjustment for 15\% cap} \; - 2/3 \text{ x Adjusted Level 1 Assets); 0} \Big)$$

Alternatively, the formula can be expressed as:[34]

Stock of HQLA

= Level 1 = Level 2A + Level 2B – Max (Adjusted Level 2A + Adjusted Level 2B)
– 2/3 x Adjusted Level 1; Adjusted Level 2B
– 15/85 x (Adjusted Level 1 + Adjusted Level 2A); 0

i. Level 1 assets

49. Level 1 assets can comprise an unlimited share of the pool and are not subject to a haircut under the LCR.[35] However, the AMF may wish to require haircuts

[33] Bank for International Settlements, Basel Committee on Banking Supervision, *Liquidity coverage ratio and liquidity risk monitoring tool*s, January 2013, Annex 1, paragraph 5.

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

[35] For purpose of calculating the LCR, Level 1 assets in the stock of HQLA should be measured at an amount no greater than their current market value.

for Level 1 securities based on, among other things, their duration, credit and liquidity risk, and typical repo haircuts.

AMF Note

Level 1 assets will not be subject to a haircut. They could be included in HQLA at 100% of their market value.

50. Level 1 assets are limited to:

a) coins and banknotes;

b) central bank reserves (including required reserves),[36] to the extent that the central bank policies allow them to be drawn down in times of stress;[37]

c) marketable securities representing claims on or guaranteed by sovereigns, central banks, PSEs, the Bank for International Settlements, the International Monetary Fund, the European Central Bank and European Community, or multilateral development banks,[38] and satisfying all of the following conditions:

- assigned a 0% risk weight under the Basel II Standardised Approach for credit risk (section 3.1 of Chapter 3 of the *Capital Adequacy Guideline* or the *Adequacy of Capital Base Guideline* (available in French only);[39]
- traded in large, deep and active repo or cash markets characterised by a low level of concentration
- have a proven record as a reliable source of liquidity in the markets (repo or sale) even during stressed market conditions

[36] In this context, central bank reserves would include institutions' overnight deposits with the central bank, and term deposits with the central bank that:

i) are explicitly and contractually repayable on notice from the depositing institution; or

ii) constitute a loan against which the institutions can borrow on a term basis or on an overnight but automatically renewable basis (only where the institution has an existing deposit with the relevant central bank).

Other term deposits with central banks are not eligible for the stock of HQLA; however, if the term expires within 30 days, the term deposit could be considered as an inflow per paragraph 154.

[37] Local supervisors should discuss and agree with the relevant central bank the extent to which central bank reserves should count towards the stock of liquid assets, i.e. the extent to which reserves are able to be drawn down in times of stress.

[38] The Basel III liquidity framework follows the categorization of market participants applied in the Basel II Framework, unless otherwise specified.

[39] Paragraph 50c) includes only marketable securities that qualify for Basel II, paragraph 53. When a 0% risk-weight has been assigned at national discretion according to the provision in paragraph 54 of the Basel II Standardised Approach, the treatment should follow paragraph 50d) or 50e).

- not an obligation of a financial institution[40] or any of its affiliated entities[41]

AMF Note

Claims on all provincial and territorial governments and agents of the federal, provincial or territorial governments whose debt are, by virtue of their enabling legislation, obligations of the parent government, will receive the same risk weight as the Government of Canada under the Basel II Standardised Approach for credit risk.

Securities issued under the *National Housing Act*[42] (NHA) may be included as Level 1 assets.

For non-foreign non-D-SIFI[43] institutions, holdings of NHA mortgage-backed securities and Canada Mortgage Bonds (CMBs) where the minimum pool size is less than $25 millions may be included as Level 1 assets.

d) where the sovereign has a non-0% risk weight, sovereign or central bank debt securities issued in domestic currencies by the sovereign or central bank in the country in which the liquidity risk is being taken or in the institution's home country; and

e) where the sovereign has a non-0% risk weight, domestic sovereign or central bank debt securities issued in foreign currencies are eligible up to the amount of the institution's stressed net cash outflows in that specific foreign currency stemming from the institution's operations in the jurisdiction where the institution's liquidity risk is being taken.

[40] This includes deposit-taking entities (including banking entities), insurance entities, securities firms as well as other financial entities that are involved in financial leasing, issuing credit cards, portfolio management, investment advisory, custodial and safekeeping services and other similar activities that are ancillary to the business of banking.

[41] This requires that the holder of the security must not have recourse to the financial institution or any of the financial institution's affiliated entities. In practice, this means that securities, such as government-guaranteed issuance during the financial crisis, which remain liabilities of the financial institution, would not qualify for the stock of HQLA. The only exception is when the institution also qualifies as a PSE under the Basel II Framework where securities issued by the institution could qualify for Level 1 assets if all necessary conditions are satisfied.

[42] R.S.C., 1985, c. N-11.

[43] "Domestic Systemically Important Financial Institution".

AMF Note

Sovereign and central bank debt securities, even with a rating below AA–, should be considered eligible as Level 1 assets only when these assets are issued by the sovereign or central bank in the institution's home country or in host countries where the institution has a presence via a subsidiary or branch. Therefore, paragraphs 50d) and e) do not apply to a country in which the institution's only presence is liquidity risk exposures denominated in the currency of that country.[44]

In paragraph 50e), the amount of non-0% risk-weighted sovereign/central bank debt issued in foreign currencies included in Level 1 assets is strictly limited to the foreign currency exposure in the jurisdiction of the issuing sovereign/central bank.[45]

ii. Level 2 assets

51. Level 2 assets (comprising Level 2A assets and any Level 2B assets permitted by the AMF) can be included in the stock of HQLA, subject to the requirement that they comprise no more than 40% of the overall stock after haircuts have been applied. The method for calculating the cap on Level 2A assets and the cap on Level 2B assets is set out in paragraph 48A, 48B and 48C.

iii. Level 2A assets

52. A 15% haircut is applied to the current market value of each Level 2A asset held in the stock of HQLA. Level 2A assets are limited to the following:

a) Marketable securities representing claims on or guaranteed by sovereigns, central banks, PSEs or multilateral development banks that satisfy all of the following conditions:[46]

- assigned a 20% risk weight under the Basel II Standardised Approach for credit risk (section 3.1 of the AMF's Capital Guidelines)
- traded in large, deep and active repo or cash markets characterised by a low level of concentration
- have a proven record as a reliable source of liquidity in the markets (repo or sale) even during stressed market conditions (e.g. maximum decline of price not exceeding 10% or increase in haircut not exceeding 10 percentage points over a 30-day period during a relevant period of significant liquidity stress)

[44] BCBS April 2014, FAQ 3(b).

[45] BCBS April 2014, FAQ 3(c).

[46] Paragraphs 50d) and e) may overlap with paragraph 52a) in terms of sovereign and central bank securities with a 20 % risk weight. In such a case, the assets can be assigned to the Level 1 category according to paragraph 50d) or e), as appropriate.

- not an obligation of a financial institution or any of its affiliates entities[47]

b) Corporate debt securities (including commercial paper)[48] and covered bonds[49] that satisfy all of the following conditions:

- in the case of corporate debt securities: not issued by a financial institution or any of its affiliated entities;

- in the case of covered bonds: not issued by the institution itself or any of its affiliated entities;

- either Level 1 assets have a long-term credit rating from a recognized external credit assessment institution (ECAI) of at least AA-[50] or in the absence of a long term rating, a short-term rating equivalent in quality to the long-term rating; or Level 2 assets do not have a credit assessment by a recognized ECAI but are internally rated as having a probability of default (PD) corresponding to a credit rating of at least AA-;

- traded in large, deep and active repo or cash markets characterised by a low level of concentration; and

- have a proven record as a reliable source of liquidity in the markets (repo or sale) even during stressed market conditions: e.g. a maximum decline of price or increase in haircut over a 30-day period during a relevant period of significant liquidity stress not exceeding 10%.

47 This includes deposit institutions, insurance entities, securities firms and other financial institutions that are involved in financial leasing, credit card issuance, portfolio management, investment advisory, custodial and safekeeping services and other similar activities that are ancillary to the business of banking.

48 Corporate debt securities (including commercial paper) in this respect include only plain-vanilla assets whose valuation is readily available based on standard methods and does not depend on private knowledge, i.e. these do not include complex structured products or subordinated debt.

49 *Covered bonds* are bonds issued and owned by an institution or mortgage institution and are subject by law to special public supervision designed to protect bond holders. Proceeds deriving from the issue of these bonds must be invested in conformity with the law in assets which, during the whole period of the validity of the bonds, are capable of covering claims attached to the bonds and which, in the event of the failure of the issuer, would be used on a priority basis for the reimbursement of the principal and payment of the accrued interest.

50 In the event of split ratings, the applicable rating should be determined according to the method used in Basel II's standardized approach for credit risk. Local rating scales (rather than international ratings) of a supervisor-approved ECAI that meet the eligibility criteria outlined in paragraph 91 of the Basel II Capital Framework can be recognized if corporate debt securities or covered bonds are held by an institution for local currency liquidity needs arising from its operations in that local jurisdiction. This also applies to Level 2B assets.

AMF Note

Covered bonds that were issued by Canadian institutions prior to the Canadian covered bond legislation coming into force on July 6, 2012 may be included as Level 2A assets if the other requirements outlined in paragraph 52b) are met (e.g. those unrelated to the covered bonds footnote).

iv. Level 2B assets

53. Certain additional assets (Level 2B assets) may be included in Level 2 at the discretion of national authorities. In choosing to include these assets in Level 2 for the purpose of the LCR, supervisors are expected to ensure that such assets fully comply with the qualifying criteria.[51] Supervisors are also expected to ensure that institutions have appropriate systems and measures to monitor and control the potential risks (e.g. credit and market risks) that institutions could be exposed to in holding these assets.

AMF Note

The AMF will allow institutions to include Level 2B assets as eligible HQLA, up to the 15% composition limit of total HQLA noted in paragraph 47, provided the assets and meet all of the eligibility criteria noted in paragraph 54 for the individual asset type.

54. A larger haircut is applied to the current market value of each Level 2B asset held in the stock of HQLA. Level 2B assets are limited to the following:

a) Residential mortgage backed securities (RMBS) that satisfy all of the following conditions may be included in Level 2B, subject to a 25% haircut:

- not issued by, and the underlying assets have not been originated by the institution itself or any of its affiliated entities;
- have a long-term credit rating from a recognized ECAI of AA or higher, or in the absence of a long term rating, a short-term rating equivalent in quality to the long-term rating;
- traded in large, deep and active repo or cash markets characterised by a low level of concentration;
- have a proven record as a reliable source of liquidity in the markets (repo or sale) even during stressed market conditions, i.e. a maximum decline of price not exceeding 20% or increase in haircut

[51] As with all aspects of the framework, compliance with these criteria will be assessed as part of peer reviews made under the Committee's regulatory consistency assessment programme. http://www.bis.org/publ/bcbs216.pdf

over a 30-day period not exceeding 20 percentage points during a relevant period of significant liquidity stress;

- the underlying asset pool is restricted to residential mortgages and cannot contain structured products;

- the underlying mortgages are "full recourse'' loans (e.g. in the case of foreclosure the mortgage owner remains liable for any shortfall in sales proceeds from the property) and have a maximum loan-to-value ratio (LTV) of 80% on average at issuance; and

- securitizations are subject to "risk retention" regulations which require issuers to retain an interest in the assets they securitise.

AMF Note

In Canada, authorities have not prescribed specific "risk retention" regulations. Enhanced disclosure and the requirement to deduct first loss in securitizations are examples where the principles of risk retention are met. For holdings of RMBS from foreign jurisdictions, institutions should follow the respective "risk retention" regulations in that jurisdiction.

The LTV requirement in paragraph 54a) refers to the weighted average (by loan balance) LTV of the portfolio of underlying mortgages, not to any individual mortgage, i.e. mortgages that have an LTV greater than 80% are not excluded *per se.*[52]

The "at issuance" reference in paragraph 54a) refers to the time when the RMBS is issued, i.e. the average LTV of the underlying mortgages at the time of the issuance of the RMBS must not be higher than 80%.[53]

b) Corporate debt securities (including commercial paper)[54] that satisfy all of the following conditions may be included in Level 2B, subject to a 50% haircut:

- not issued by, and the underlying assets have not been originated by the institutions itself or any of its affiliated entities

- either Level 1 assets have a long-term credit rating from a recognized ECAI between A+ and BBB- or in the absence of a long term rating, a short-term rating equivalent in quality to the long-term rating; or Level 2A assets do not have a credit assessment by a recognized ECAI and are internally rated as having a PD corresponding to a credit rating of between A+ and BBB-

- traded in large, deep and active repo or cash markets characterised by a low level of concentration

52 BCBS April 2014, FAQ 2(a).

53 BCBS April 2014, FAQ 2(b).

54 See Footnote 48.

- have a proven record as a reliable source of liquidity in the markets (repo or sale) even during stressed market conditions, i.e. a maximum decline of price not exceeding 20% or increase in haircut over a 30-day period not exceeding 20 percentage points during a relevant period of significant liquidity stress

AMF Note

Sovereign and central bank debt securities rated BBB+ to BBB– that are not included in the definition of Level 1 assets according to paragraph 50d) or 50e) may be included in the definition of Level 2B assets with a 50% haircut within the 15% cap for all Level 2B assets.[55]

c) Common equity shares that satisfy all of the following conditions may be included in Level 2B, subject to a 50% haircut:

- not issued by a financial institution or any of its affiliated entities
- exchange traded and centrally cleared
- a constituent of the major stock index in the home jurisdiction or where the liquidity risk is taken, as decided by the supervisor in the jurisdiction where the index is located
- denominated in the domestic currency of an institution's home jurisdiction or in the currency of the jurisdiction where an institution's liquidity risk is taken
- traded in large, deep and active repo or cash markets characterised by a low level of concentration
- have a proven record as a reliable source of liquidity in the markets (repo or sale) even during stressed market conditions, i.e. a maximum decline of share price not exceeding 40% or increase in haircut not exceeding 40 percentage points over a 30-day period during a relevant period of significant liquidity

[55] BCBS April 2014, FAQ 3(a).

AMF Note

For purposes of the sub-criteria of the paragraph 54c), the S&P/TSX 60 Index should be recognized as the major stock index in Canada. Institutions should consult with the supervisor in jurisdictions outside Canada where both i) common equity shares are held by the institution and ii) where liquidity risk is being taken by the institution, for a determination of the major stock index in that jurisdiction.

Long cash equity positions held against synthetic short positions (e.g. equity total return swap (TRS) transactions) should be considered "encumbered" and are not eligible for inclusion as Level 2B assets.

Institutions are permitted to include long cash non-financial equity positions held against synthetic short positions as eligible Level 2B assets provided the operational requirements outlined in section 2.2.1.2 are met. In the case of equity total return swaps (TRS), for example, this means that provisions must be included in the TRS contracts that give the institution the unfettered right to terminate the TRS with settlement of cash flows (on both the equities and the TRS) occurring within the LCR's 30-day time horizon. In addition, the process of unwinding such transactions must not create an open risk position in excess of internal limits, in line with paragraph 33.

Equities that are a constituent of a major stock index can only be assigned to the stock of HQLA if the stock index is located within the home jurisdiction of the institution or if the institution has liquidity risk exposure through a branch or other legal entity in that jurisdiction[56].

54a. In addition, the AMF may choose to include within Level 2B assets the undrawn value of any contractual committed liquidity facility (CLF) provided by a central bank, where this has not already been included in HQLA in accordance with paragraph 58 below.

When including such facilities within Level 2B assets, the following conditions apply:

a) The facility (termed a Restricted-use committed liquidity facility (RCLF)) must, in normal times, be subject to a commitment fee on the total (drawn and undrawn) facility amount that is at least the greater of:

- 75 basis points per annum;
- at least 25 basis points per annum above the difference in yield on the assets used to secure the RCLF and the yield on a representative portfolio of HQLA, after adjusting for any material differences in credit risk.

In periods of market-wide stress the commitment fee on the RCLF (drawn and undrawn amount) may be reduced, but remain subject to the minimum requirements applicable to CLFs used by countries with insufficient HQLA.

[56] BCBS, April 2014, FAQ 4(b).

b) The RCLF must be supported by unencumbered collateral of a type specified by the Bank of Canada. The collateral must be held in a form which supports immediate transfer to the central bank should the facility need to be drawn and sufficient (post haircut) to cover the total size of the facility. Collateral used to support a RCLF cannot simultaneously be used as part of HQLA.

c) Conditional on the financial institution being assessed to be solvent, the RCLF contract must otherwise be irrevocable prior to maturity and involve no other ex-post credit decision by the Bank of Canada. The commitment period must exceed the 30-day stress period stipulated by the LCR framework.

d) Central banks that offer RCLFs to banks in their jurisdiction should disclose their intention to do so and, to the extent that facilities are not available to all banks in the jurisdiction, to which classes) of banks they may be offered.

v. Treatment for jurisdictions with sufficient HQLA

Assessment of eligibility for alternative liquidity approaches (ALA)

55. Some jurisdictions may have an insufficient supply of Level 1 assets (or both Level 1 and Level 2 assets)[57] in their domestic currency to meet the aggregate demand of institutions with significant exposures in this currency.

To address this situation, the Basel Committee has developed alternative treatments for holdings in the stock of HQLA, which are expected to apply to a limited number of currencies and jurisdictions. Eligibility for such alternative treatment will be judged on the basis of the qualifying criteria set out in Annex 2-II and will be determined through an independent peer review process overseen by the Committee. The purpose of this process is to ensure that the alternative treatments are only used when there is a true shortfall in HQLA in the domestic currency relative to the needs in that currency.[58]

56. To qualify for the alternative treatment, a jurisdiction should be able to demonstrate that:

- There is an insufficient supply of HQLA in its domestic currency, taking into account all relevant factors affecting the supply of, and demand for, such HQLA.[59]

[57] Insufficiency in Level 2 assets alone does not qualify for the alternative treatment.

[58] For member states of a monetary union with a common currency, that common currency is considered the “domestic currency”.

[59] The assessment of insufficiency is only required to take into account the Level 2B assets if the national authority chooses to include them within HQLA. In particular, if certain Level 2B assets are not included in the stock of HQLA in a given jurisdiction, then the assessment of insufficiency in that jurisdiction does not need to include the stock of Level 2B assets that are available in that jurisdiction.

- The insufficiency is caused by long-term structural constraints that cannot be resolved within the medium term.

- It has the capacity, through any mechanism or control in place, to limit or mitigate the risk that the alternative treatment cannot work as expected.

- It is committed to observing the obligations related to supervisory monitoring, disclosure, and periodic self-assessment and independent peer review of its eligibility for alternative treatment.

All of the above criteria have to be met to qualify for the alternative treatment.

AMF Note

AMF does not consider that Canada as a jurisdiction, nor the Canadian dollar (CAN) as a currency, meet the qualifying criteria for eligibility for the alternative liquidity approaches mentioned in paragraphs 55 and 56. Accordingly, the AMF has not incorporated the text featured in paragraphs 57 to 68, Annex 2 and Annex 3 of BCBS, into this Guideline.

2.2.2 Total net cash outflows

69. The term total net cash outflows[60] is defined as the total expected cash outflows minus total expected cash inflows in the specified stress scenario for the subsequent 30 days.

Total expected cash outflows are calculated by multiplying the outstanding balances of various categories or types of liabilities and off-balance sheet commitments by the rates at which they are expected to run off or be drawn down.

Total expected cash inflows are calculated by multiplying the outstanding balances of various categories of contractual receivables by the rates at which they are expected to flow in under the scenario up to an aggregate cap of 75% of total expected cash outflows.

$$\text{Total net cash outflows over the next 30 days} = \text{Total expected cash outflows} - \text{Min}\{\text{total expected cash inflows; 75\% of total expected cash outflows}\}$$

70. While most roll-off rates, draw-down rates and similar factors are harmonised across jurisdictions as outlined in this standard, a few parameters are to be determined by supervisory authorities at the national level. Where this is the case, the parameters should be transparent and made publicly available.

[60] Where applicable, cash inflows and outflows should include interest that is expected to be received and paid during the 30-day time horizon.

71. Annex 2-I of this Guideline provides a summary of the factors that are applied to each category.

72. Institutions will not be permitted to double count items, e.g. if an asset is included as part of the "stock of HQLA" (i.e. the numerator), the associated cash inflows cannot also be counted as cash inflows (i.e. part of the denominator). Where there is potential that an item could be counted in multiple outflow categories, (e.g. committed liquidity facilities granted to cover debt maturing within the 30 day period), an institution only has to assume up to the maximum contractual outflow for that product.

2.2.2.1 Cash outflows

AMF Note

If a deposit is contractually pledged to an institution as collateral to secure a credit facility or loan granted by the institution that will not mature or be settled in the next 30 days, the pledged deposit may be excluded from the calculation of the total expected cash outflows under the LCR provided the following conditions are met:

- the loan will not mature or be settled in the next 30 days;
- the pledge arrangement is subject to a legally enforceable contract disallowing withdrawal of the deposit before the loan is fully settled or repaid; and
- the amount of deposit to be excluded cannot exceed the outstanding balance of the loan (which may be the drawn portion of a credit facility).

The above treatment does not apply to a deposit which is pledged against an undrawn facility, in which case the higher of the outflow rate applicable to the undrawn facility or the pledged deposit applies.[61]

i. Retail Deposit Run-off

73. Retail deposits are defined as deposits placed with an institution by a natural person. Deposits from legal entities, sole proprietorships or partnerships are captured in wholesale deposit categories.

Retail deposits subject to the LCR include demand deposits and term deposits, unless otherwise excluded under the criteria set out in paragraphs 82 and 83.

74. These retail deposits are divided into "stable" and "less stable" portions of funds as described below, with minimum run-off rates listed for each category. The run-off rates for retail deposits are minimum floors, with higher run-off rates established by individual jurisdictions as appropriate to capture depositor behaviour in a period of stress in each jurisdiction.

[61] BCBS, April 2014, FAQ 5.

a) Stable deposits (run-off rate = 3% and higher)

75. Stable deposits, which usually receive a run-off factor of 5%, are the amount of the deposits that are fully insured[62] by an effective deposit insurance scheme or by a public guarantee that provides equivalent protection and where:

- the depositors have other established relationships with the institution that make deposit withdrawal highly unlikely; or
- deposits are in transactional accounts (e.g. accounts where salaries are automatically deposited).

76. For the purposes of this standard, an "effective deposit insurance scheme" refers to a scheme (i) that guarantees that it has the ability to make prompt payouts, (ii) for which the coverage is clearly defined and (iii) of which public awareness is high. The deposit insurer in an effective deposit insurance scheme has formal legal powers to fulfil its mandate and is operationally independent, transparent and accountable. A jurisdiction with an explicit and legally binding sovereign deposit guarantee that effectively functions as deposit insurance can be regarded as having an effective deposit insurance scheme.

77. The presence of deposit insurance alone is not sufficient to consider a deposit "stable".

78. Jurisdictions may choose to apply a run-off rate of 3% to stable deposits in their jurisdictions if they meet the above stable deposit criteria and the following additional criteria for deposit insurance schemes:[63]

- insurance scheme is based on a system of prefunding via the periodic collection of levies on institutions with insured deposits;[64]
- scheme has adequate means of ensuring ready access to additional funding in the event of a large call on its reserves, e.g. an explicit and

[62] "Fully insured" means that 100% of the deposit amount, up to the deposit insurance limit, is covered by an effective deposit insurance scheme. Deposit balances up to the deposit insurance limit can be treated as "fully insured" even if a depositor has a balance in excess of the deposit insurance limit. However, any amount in excess of the deposit insurance limit is to be treated as "less stable". For example, if a depositor has a deposit of $150 that is covered by a deposit insurance scheme, which has a limit of $100, where the depositor would receive at least $100 from the deposit insurance scheme if the financial institution were unable to pay, then $100 would be considered "fully insured" and treated as stable deposits while $50 would be treated as less stable deposits. However if the deposit insurance scheme only covered a percentage of the funds from the first currency unit (e.g. 90% of the deposit amount up to a limit of $100) then the entire $150 deposit would be less stable.

[63] The Financial Stability Board has asked the International Association of Deposit Insurers (IADI), in conjunction with the Basel Committee and other relevant bodies where appropriate, to update its *Core Principles* and other guidance to better reflect leading practices. The criteria in this paragraph will therefore be reviewed by the Committee once the work by IADI is completed.

[64] The requirement for periodic collection of levies from banks does not preclude that deposit insurance schemes may, on occasion, provide for contribution holidays due to the scheme being well-funded at a given point in time.

legally binding guarantee from the government, or a standing authority to borrow from the government; and

- access to insured deposits is available to depositors in a short period of time once the deposit insurance scheme is triggered.[65]

Jurisdictions applying the 3% run-off rate to stable deposits with deposit insurance arrangements that meet the above criteria should be able to provide evidence of run-off rates for stable deposits within the banking system below 3% during any periods of stress experienced that are consistent with the conditions within the LCR.

AMF Note

Institutions may recognize the 3% run-off rate for retail deposits that meet the stable deposit criteria in paragraph 75 that are fully insured by a Deposit Insurance Corporation.

Institutions may recognize the 3% run-off rate for retail deposits located outside Canada that meet the stable deposit criteria in paragraph 75 that are fully insured by a deposit insurer that meets the criteria outlined in paragraph 78 as approved by the relevant prudential supervisor in that jurisdiction.

b) Less stable deposits (run-off rates = 10% and higher)

79. Supervisory authorities are expected to develop additional buckets with higher runoff rates as necessary to apply to buckets of potentially less stable retail deposits in their jurisdictions, with a minimum run-off rate of 10%.

These jurisdiction-specific run-off rates should be clearly outlined and publicly transparent. Buckets of less stable deposits could include deposits that are not fully covered by an effective deposit insurance scheme or sovereign deposit guarantee, high-value deposits, deposits from sophisticated or high net worth individuals, deposits that can be withdrawn quickly (e.g. internet deposits) and foreign currency deposits, as determined by each jurisdiction.

[65] This period of time would typically be expected to be no more than seven business days.

AMF Note

A run-off rate of 10% should be applied to all retail deposits that are sourced from an unaffiliated third-party (e.g. an entity that is not branded with the institution or that is not branded as a subsidiary of the institution), that are denominated in a foreign currency (e.g. deposits denominated in any other currency than the domestic currency in a jurisdiction in which the institution operates), or are of high-value (e.g. are not fully covered by an effective deposit insurance scheme or sovereign deposit guarantee). Further, all retail deposits that do not meet the criteria for stable deposits in paragraphs 75, 76, 77 and 78 should be assigned a 10% run-off rate.

This rate of 10% also includes deposits received from intermediaries (such as funds or trusts) where the underlying customers are retail or small business customers provided the following conditions are met:

i) The deposit balances are controlled solely by the underlying customer – i.e. the intermediary does not influence the balances placed or the institution where such balances are placed at (e.g. after initial placement by shopping for yield each month), and

ii) The intermediary regularly provides the institution with detailed information such that the institution can identify the list of beneficiaries' names and related deposit amounts.

80. If an institution is not able to readily identify which retail deposits would qualify as "stable" according to the above definition (e.g. the institution cannot determine which deposits are covered by an effective deposit insurance scheme or a sovereign deposit guarantee), it should place the full amount in the "less stable" buckets.

81. Foreign currency retail deposits are deposits denominated in any other currency than the domestic currency in a jurisdiction in which the institution operates.

AMF will determine the run-off factor that institutions in their jurisdiction should use for foreign currency deposits. Foreign currency deposits will be considered as "less stable" if there is a reason to believe that such deposits are more volatile than domestic currency deposits.

Factors affecting the volatility of foreign currency deposits include the type and sophistication of the depositors, and the nature of such deposits (e.g. whether the deposits are linked to business needs in the same currency, or whether the deposits are placed in a search for yield).

82. Cash outflows related to retail term deposits with a residual maturity or withdrawal notice period of greater than 30 days will be excluded from total expected cash outflows if the depositor has no legal right to withdraw deposits within the 30-day horizon of the LCR, or if early withdrawal results in a significant penalty that is materially greater than the loss of interest.[66]

[66] If a portion of the term deposit can be withdrawn without incurring such a penalty, only that portion should be treated as a demand deposit. The remaining balance of the deposit should be treated as a term deposit.

83. If an institution allows a depositor to withdraw such deposits without applying the corresponding penalty, or despite a clause that says the depositor has no legal right to withdraw, the entire category of these funds would then have to be treated as demand deposits (i.e. regardless of the remaining term, the deposits would be subject to the deposit run-off rates as specified in paragraphs 74 to 81).

Supervisors in each jurisdiction may choose to outline exceptional circumstances that would qualify as hardship, under which the exceptional term deposit could be withdrawn by the depositor without changing the treatment of the entire pool of deposits.

AMF Note

For purposes of paragraph 83, the AMF defines "hardship" to include pre-defined and documented situations such as death, catastrophic illness, loss of employment, or bankruptcy of the depositor.

84. Notwithstanding the above, supervisors may also opt to treat retail term deposits that meet the qualifications set out in paragraph 82 with a higher than 0% run-off rate, if they clearly state the treatment that applies for their jurisdiction and apply this treatment in a similar fashion across institutions in their jurisdiction.

Such reasons could include, but are not limited to:

- supervisory concerns that depositors would withdraw term deposits in a similar fashion as retail demand deposits during either normal or stress times;
- concern that institutions may repay such deposits early in stressed times for reputational reasons, or;
- the presence of unintended incentives on institutions to impose material penalties on consumers if deposits are withdrawn early. In these cases supervisors would assess a higher run-off against all or some of such deposits.

AMF Note

AMF will treat all retail term deposits that meet the qualifications set out in paragraph 82 with a 0% run-off rate. AMF will monitor institutions practices regarding retail term deposits to ensure this treatment remains appropriate.

ii) Unsecured wholesale funding run-off

85. For the purposes of the LCR, "unsecured wholesale funding" is defined as those liabilities and general obligations that are raised from non-natural persons (i.e. legal entities, including sole proprietorships and partnerships) and are **not collateralized** by legal rights to specifically designated assets owned by the borrowing institution in the case of bankruptcy, insolvency, liquidation or resolution. Obligations related to derivative contracts are explicitly excluded from this definition.

86. The wholesale funding included in the LCR is defined as all funding that is callable within the LCR's horizon of 30 days or that has its earliest possible contractual maturity date situated within this horizon (such as maturing term deposits and unsecured debt securities) as well as funding with an undetermined maturity.

This should include all funding with options that are exercisable at the investor's discretion within the 30 days horizon. For funding with options exercisable at the institution's discretion, supervisors should take into account reputational factors that may limit an institution's ability not to exercise the option.[67] In particular, where the market expects certain liabilities to be redeemed before their legal final maturity date, institutions and supervisors should assume such behaviour for the purpose of the LCR and include these liabilities as outflows.

87. Wholesale funding that is callable[68] by the funds provider subject to a contractually defined and binding notice period surpassing the 30-day horizon is not included.

88. For the purposes of the LCR, unsecured wholesale funding is to be categorised as detailed below, based on the assumed sensitivity of the funds providers to the rate offered and the credit quality and solvency of the borrowing institution. This is determined by the type of funds providers and their level of sophistication, as well as their operational relationships with the institution. The run-off rates for the scenario are listed for each category.

a) Unsecured wholesale funding provided by small business customers: 5%, 10% and higher

89. Unsecured wholesale funding provided by small business customers is treated the same way as retail deposits for the purposes of this standard, effectively distinguishing between a "stable" portion of funding provided by small business customers and different buckets of less stable funding defined by each jurisdiction. The same bucket definitions and associated run-off factors apply as for retail deposits.

[67] This could reflect a case where an institution may imply that it is under liquidity stress if it did not exercise an option on its own funding.

[68] This takes into account any embedded options linked to the funds provider's ability to call the funding before contractual maturity.

90. This category consists of deposits and other extensions of funds made by nonfinancial small business customers. “Small business customers” are defined in line with the definition of loans extended to small businesses in Chapter 5, paragraph 231 of the Guideline as having similar liquidity risk characteristics to retail accounts provided the total aggregated funding[69] raised from one small business customer is less than CAN$1.25 million (on a consolidated basis where applicable).

91. Where an institution does not have any exposure to a small business customer that would enable it to use the definition under paragraph 231 of the *Adequacy of Capital Base Guideline* (Financial cooperatives) (available in French only) and *Capital Adequacy Guideline* (Credit unions not member of a federation, trust companies and savings companies), the institution may include such a deposit in this category provided that the total aggregate funding raised from the customer is less than CAN$1.25 million (on a consolidated basis where applicable) and the deposit is managed as a retail deposit. This means that the institution treats such deposits in its internal risk management systems consistently over time and in the same manner as other retail deposits, and that the deposits are not individually managed in a way comparable to larger corporate deposits.

92. Term deposits from small business customers should be treated in accordance with the treatment for term retail deposits as outlined in paragraphs 82, 83 and 84.

b) Operational deposits generated by clearing, custody and cash management activities: 25%

93. Certain activities lead to financial and non-financial customers needing to place, or leave, deposits with an institution in order to facilitate their access and ability to use payment and settlement systems and otherwise make payments.

These funds may receive a 25% run-off factor only if the customer has a substantive dependency with the institution and the deposit is required for such activities.

Supervisory approval would have to be given to ensure that institutions utilising this treatment actually are conducting these operational activities at the level indicated. Supervisors may choose not to permit institutions to utilise the operational deposit runoff rates in cases where, for example, a significant portion of operational deposits are provided by a small proportion of customers (i.e. concentration risk).

[69] “Aggregated funding” means the gross amount (e.g. not netting any form of credit extended to the legal entity) of all forms of funding (e.g. deposits or debt securities or similar derivative exposure for which the counterparty is known to be a small business customer). In addition, applying the limit on a consolidated basis means that where one or more small business customers are affiliated with each other, they may be considered as a single creditor such that the limit is applied to the total funding received by the institution from this group of customers.

94. Qualifying activities in this context refer to clearing, custody or cash management activities that meet the following criteria:

- The customer is reliant on the institution to perform these services as an independent third party intermediary in order to fulfil its normal banking activities over the next 30 days. For example, this condition would not be met if the institution is aware that the customer has adequate back-up arrangements.

- These services must be provided under a legally binding agreement to institutional customers.

- The termination of such agreements shall be subject either to a notice period of at least 30 days or significant switching costs (such as those related to transaction, information technology, early termination or legal costs) to be borne by the customer if the operational deposits are moved before 30 days.

95. Qualifying operational deposits generated by such an activity are ones where:

- The deposits are by-products of the underlying services provided by the banking organisation and not sought out in the wholesale market in the sole interest of offering interest income.

- The deposits are held in specifically designated accounts and priced without giving an economic incentive to the customer (not limited to paying market interest rates) to leave any excess funds on these accounts. In the case that interest rates in a jurisdiction are close to zero, it would be expected that such accounts are non-interest bearing. Institutions should be particularly aware that during prolonged periods of low interest rates, excess balances (as defined below) could be significant.

96. Any excess balances that could be withdrawn and would still leave enough funds to fulfil these clearing, custody and cash management activities do not qualify for the 25% factor.

In other words, only that part of the deposit balance with the service provider that is proven to serve a customer's operational needs can qualify as stable. Excess balances should be treated in the appropriate category for non-operational deposits.

If institutions are unable to determine the amount of the excess balance, then the entire deposit should be assumed to be excess to requirements and, therefore, considered non-operational.

97. Institutions must determine the methodology for identifying excess deposits that are excluded from this treatment. This assessment should be conducted at a sufficiently granular level to adequately assess the risk of withdrawal in an idiosyncratic stress. The methodology should take into account relevant factors

such as the likelihood that wholesale customers have above average balances in advance of specific payment needs, and consider appropriate indicators (e.g. ratios of account balances to payment or settlement volumes or to assets under custody) to identify those customers that are not actively managing account balances efficiently.

98. Operational deposits would receive a 0% inflow assumption for the depositing institution given that these deposits are required for operational reasons, and are therefore not available to the depositing institution to repay other outflows.

99. Notwithstanding these operational categories, if the deposit under consideration arises out of correspondent banking[70] or from the provision of prime brokerage[71] services, it will be treated as if there were no operational activity for the purpose of determining run-off factors.

100. The following paragraphs describe the types of activities that may generate operational deposits. An institution should assess whether the presence of such an activity does indeed generate an operational deposit as not all such activities qualify due to differences in customer dependency, activity and practices.

101. A clearing relationship, in this context, refers to a service arrangement that enables customers to transfer funds (or securities) indirectly through direct participants in domestic settlement systems to final recipients. Such services are limited to the following activities: transmission, reconciliation and confirmation of payment orders; daylight overdraft, overnight financing and maintenance of post-settlement balances; and determination of intraday and final settlement positions.

102. A custody relationship, in this context, refers to the provision of safekeeping, reporting, processing of assets or the facilitation of the operational and administrative elements of related activities on behalf of customers in the process of their transacting and retaining financial assets.

Such services are limited to the settlement of securities transactions, the transfer of contractual payments, the processing of collateral, and the provision of custody related cash management services. Also included are the receipt of dividends and other income, client subscriptions and redemptions. Custodial services can furthermore extend to asset and corporate trust servicing, treasury, escrow, funds transfer, stock transfer and agency services, including payment and settlement services (excluding correspondent banking), and depository receipts.

[70] Correspondent banking refers to arrangements under which one institution (correspondent) holds deposits owned by other institutions (respondents) and provides payment and other services in order to settle foreign currency transactions (e.g. so-called nostro and vostro accounts used to settle transactions in a currency other than the domestic currency of the respondent institution for the provision of clearing and settlement of payments).

[71] Prime brokerage is a package of services offered to large active investors, particularly institutional hedge funds. These services usually include: clearing, settlement and custody; consolidated reporting; financing (margin, repo or synthetic); securities lending; capital introduction; and risk analytics.

103. A cash management relationship, in this context, refers to the provision of cash management and related services to customers. Cash management services, in this context, refers to those products and services provided to a customer to manage its cash flows, assets and liabilities, and conduct financial transactions necessary to the customer's ongoing operations. Such services are limited to payment remittance, collection and aggregation of funds, payroll administration, and control over the disbursement of funds.

104. The portion of the operational deposits generated by clearing, custody and cash. Management activities that are fully covered by deposit insurance can receive the same treatment as "stable" retail deposits.

c) Treatment of deposits in institutional networks of cooperative banks: 25% or 100%

105. An institutional network of cooperative (or otherwise named) institutions is a group of legally autonomous institutions with a statutory framework of cooperation with common strategic focus and brand where specific functions are performed by central institutions or specialised service providers.

A 25% run-off rate can be given to the amount of deposits of member institutions with the central institution or specialised central service providers that are placed (a) due to statutory minimum deposit requirements, which are registered at regulators or (b) in the context of common task sharing and legal, statutory or contractual arrangements so long as both the institution that has received the monies and the institution that has deposited participate in the same institutional network's mutual protection scheme against illiquidity and insolvency of its members. As with other operational deposits, these deposits would receive a 0% inflow assumption for the depositing institution, as these funds are considered to remain with the centralised institution.

106. Supervisory approval would have to be given to ensure that institutions utilising this treatment actually are the central institution or a central service provider of such a cooperative (or otherwise named) network. Correspondent banking activities would not be included in this treatment and would receive a 100% outflow treatment, as would funds placed at the central institutions or specialised service providers for any other reason other than those outlined in (a) and (b) in the paragraph above, or for operational functions of clearing, custody, or cash management as outlined in paragraphs 101 to 103.

d) Unsecured wholesale funding provided by non-financial corporates and sovereigns, central banks, multilateral development banks, and PSEs: 20% or 40%

107. This category comprises all deposits and other extensions of unsecured funding from non-financial corporate customers (that are not categorised as small business customers) and (both domestic and foreign) sovereign, central bank, multilateral development bank, and PSE customers that are not specifically held for operational purposes (as defined above). The run-off factor for these funds is 40%, unless the criteria in paragraph 108 are met.

108. Unsecured wholesale funding provided by non-financial corporate customers, sovereigns, central banks, multilateral development banks, and PSEs without operational relationships can receive a 20% run-off factor if the entire amount of the deposit is fully covered by an effective deposit insurance scheme or by a public guarantee that provides equivalent protection.

e) Unsecured wholesale funding provided by other legal entity customers: 100%

109. This category consists of all deposits and other funding from other institutions (including institutions, securities firms, insurance companies, etc.), fiduciaries,[72] beneficiaries,[73] conduits and special purpose vehicles, affiliated entities of the institution[74] and other entities that are not specifically held for operational purposes (as defined above) and not included in the prior three categories. The run-off factor for these funds is 100%.

110. All notes, bonds and other debt securities issued by the institution are included in this category regardless of the holder, unless the bond is sold exclusively in the retail market and held in retail accounts (including small business customer accounts treated as retail per paragraphs 89-91), in which case the instruments can be treated in the appropriate retail or small business customer deposit category. To be treated in this manner, it is not sufficient that the debt instruments are specifically designed and marketed to retail or small business customers. Rather there should be limitations placed such that those instruments cannot be bought and held by parties other than retail or small business customers.

AMF Note

Stamped bankers acceptance (BA) liabilities issued by the institution that mature within 30 days should be included under paragraph 110.

111. Customer cash balances arising from the provision of prime brokerage services, including but not limited to the cash arising from prime brokerage services as identified in paragraph 99, should be considered separate from any required segregated balances related to client protection regimes imposed by national regulations, and should not be netted against other customer exposures included in this standard. These offsetting balances held in segregated accounts are treated as inflows in paragraph 154 and should be excluded from the stock of HQLA.

[72] In Québec, a legal entity authorized to manage assets ("trust company") under applicable laws is considered a fiduciary (trustee).

[73] Beneficiary is defined in this context as a legal entity that receives, or may become eligible to receive, benefits under a will, insurance policy, retirement plan, annuity, trust, or other contract.

[74] Outflows on unsecured wholesale funding from affiliated entities of the institutions are included in this category unless the funding is part of an operational relationship, a deposit in an institutional network of cooperative institutions or the affiliated entity of a non-financial corporate.

iii. Secured funding run-off

112. For the purposes of this standard, "secured funding" is defined as those liabilities and general obligations that are collateralised by legal rights to specifically designated assets owned by the borrowing institution in the case of bankruptcy, insolvency, liquidation or resolution.

113. Loss of secured funding on short-term financing transactions: In this scenario, the ability to continue to transact repurchase, reverse repurchase and other securities financing transactions is limited to transactions backed by HQLA or with the institution's domestic sovereign, PSE or central bank.[75]

Collateral swaps should be treated as repurchase or reverse repurchase agreements, as should any other transaction with a similar form. Additionally, collateral lent to the institution's customers to affect short positions[76] should be treated as a form of secured funding. For the scenario, an institution should apply the following factors to all outstanding secured funding transactions with maturities within the 30-day stress horizon, including customer short positions that do not have a specified contractual maturity. The amount of outflow is calculated based on the amount of funds raised through the transaction, and not the value of the underlying collateral.

AMF Note

Cash outflows associated with collateral swaps occur where the collateral borrowed is of higher quality within the LCR framework than the collateral lent. Such cash outflow amounts are to be calculated as the difference between the outflow rate prescribed in the table in paragraph 115 for the collateral lent and the inflow rate prescribed for non-rehypothecated collateral in the table in paragraph 146 for the collateral borrowed.

For example, where Level 2A assets are lent and Level 1 assets borrowed, a 15% outflow rate should be allocated. Similarly, where non-HQLA assets are lent and Level 2A assets are borrowed, an 85% outflow rate should be allocated. Note that no outflow should be allocated when the collateral lent and collateral borrowed are of the same LCR type.

Forward repos and forward collateral swaps that start prior to and mature within the LCR's 30-day horizon should be treated like repos and collateral swaps according to paragraphs 113 to 115.[77]

[75] In this context, PSEs that receive this treatment should be limited to those that are 20% risk weighted or better, and "domestic" can be defined as a jurisdiction where a bank is legally incorporated.

[76] A customer short position in this context describes a transaction where an institution's customer sells a security it does not own, and the institution subsequently obtains the same security from internal or external sources to make delivery into the sale. Internal sources include the institution's own inventory of collateral as well as rehypothecatable collateral held in other customer margin accounts. External sources include collateral obtained through a securities borrowing, reverse repo, or like transaction.

[77] BCBS, April 2014, FAQ 15.

114. Due to the high-quality of Level 1 assets, no reduction in funding availability against these assets is assumed to occur. Moreover, no reduction in funding availability is expected for any maturing secured funding transactions with the institution's domestic central bank.

A reduction in funding availability will be assigned to maturing transactions backed by Level 2 assets equivalent to the required haircuts. A 25% factor is applied for maturing secured funding transactions with the institution's domestic sovereign, multilateral development banks, or domestic PSEs that have a 20% or lower risk weight, when the transactions are backed by assets other than Level 1 or Level 2A assets, in recognition that these entities are unlikely to withdraw secured funding from institutions in a time of market-wide stress. This, however, gives credit only for outstanding secured funding transactions, and not for unused collateral or merely the capacity to borrow.

115. For all other maturing transactions the run-off factor is 100%, including transactions where an institution has satisfied customers' short positions with its own long inventory.

The table below summarizes the applicable standards:

Categories for outstanding maturing secured funding transactions	**Amount to add to cash outflows**
Backed by Level 1 assets or with central banks	0%
Backed by Level 2A assets	15%
Secured funding transactions with domestic sovereign, public sector entities or multilateral development banks that are not backed by Level 1 or 2A assets. Public sector entities that receive this treatment are limited to those that have a risk weight of 20% or lower Backed by residential mortgage-backed securities eligible for inclusion in Level 2B	25%
Backed by other Level 2B assets	50%
All others	100%

AMF Note

All secured transactions maturing within 30 days should be reported according to the collateral actually pledged, as of close of business on the LCR measurement date, applying the outflow assumptions in paragraph 115. If the institution cannot determine which specific assets in the collateral pool (HQLA and non-HQLA) are used to collateralize the transactions with a residual maturity greater than 30 days, it may assume that assets are encumbered to these transactions in order of increasing liquidity value, consistent with the methodology set out in Footnote 24 in such a way that assets with the lowest liquidity value in the LCR are assigned to the transactions with the longest residual maturities first.[78]

iv. Additional requirements

116. **Derivatives cash outflows:** the sum of all net cash outflows should receive a 100% factor. Institutions should calculate, in accordance with their existing valuation methodologies, expected contractual derivative cash inflows and outflows. Cash flows may be calculated on a net basis (i.e. inflows can offset outflows) by counterparty, only where a valid master netting agreement exists. Institutions should exclude from such calculations those liquidity requirements that would result from increased collateral needs due to market value movements or falls in value of collateral posted.[79] Options should be assumed to be exercised when they are 'in the money' to the option buyer.

AMF Note

For purposes of paragraph 116, institutions should consider any option that expires or can be exercised within the next 30 days and that is "in the money" to the option buyer. The cash flow should reflect the state of the transaction as of the reporting date.[80]

Options with delivery settlement should be considered according to the liquidity value of the delivered assets, i.e. the assets are subject to the haircuts that would be applied if these assets were collateral in secured transactions or collateral swaps. If contractual arrangements allow for both physical delivery and cash settlement, cash settlement may be assumed.[81]

If the delivery obligation can be fulfilled with a variety of security classes, i.e. the party liable has the choice between different securities; delivery of the least valuable security possible ("cheapest to deliver") can be assumed. This applies symmetrically to both the inflow and outflow perspective, such that the obligor is assumed to deliver the security with the lowest liquidity value.[82]

Cash flows arising from foreign exchange derivative transactions that involve a full exchange of principal amounts on a simultaneous basis (or within the same day) may be reflected in the LCR as a net cash flow figure, even where those deals are not covered by a master netting agreement.[83]

78 BCBS, April 2014, FAQ 1(c).

79 These risks are captured in paragraphs 119 and 123, respectively.

80 BCBS, April 2014, FAQ 8(b).

81 BCBS, April 2014, FAQ 8(c).

117. Where derivative payments are collateralised by HQLA, cash outflows should be calculated net of any corresponding cash or collateral inflows that would result, all other things being equal, from contractual obligations for cash or collateral to be provided to the institution, if the institution is legally entitled and operationally capable to re-use the collateral in new cash raising transactions once the collateral is received. This is in line with the principle that institutions should not double count liquidity inflows and outflows.

118. **Increased liquidity needs related to downgrade triggers embedded in financing transactions, derivatives and other contracts**: (100% of the amount of collateral that would be posted for, or contractual cash outflows associated with, any downgrade up to and including a 3-notch downgrade). Often, contracts governing derivatives and other transactions have clauses that require the posting of additional collateral, drawdown of contingent facilities, or early repayment of existing liabilities upon the institution's downgrade by a recognized credit rating organisation. The scenario therefore requires that for each contract in which "downgrade triggers" exist, the institution assumes that 100% of this additional collateral or cash outflow will have to be posted for any downgrade up to and including a 3-notch downgrade of the institution's long-term credit rating. Triggers linked to an institution's short-term rating should be assumed to be triggered at the corresponding long-term rating in accordance with published ratings criteria. The impact of the downgrade should consider impacts on all types of margin collateral and contractual triggers which change rehypothecation rights for non-segregated collateral.

AMF Note

Unless expressly specified otherwise, the provisions outlined in paragraphs 118 to 122 apply to all derivative instruments i.e. whether OTC or on-exchange; whether cleared or not.[84]

119. **Increased liquidity needs related to the potential for valuation changes on posted collateral securing derivative and other transactions**: (20% of the value of non- Level 1 posted collateral). Observation of market practices indicates that most counterparties to derivatives transactions typically are required to secure the mark-to-market valuation of their positions and that this is predominantly done using cash or sovereign, central bank, multilateral development banks, or PSE debt securities with a 0% risk weight under the AMF' s Guideline.[85]

When these Level 1 liquid asset securities are posted as collateral, the framework will not require that an additional stock of HQLA be maintained for potential valuation changes. If however, counterparties are securing mark-to-

82 BCBS, April 2014, FAQ 8(d).

83 BCBS, April 2014, FAQ 8(e).

84 BCBS, April 2014, FAQ 9(b).

85 Autorité des marchés financiers, *Adequacy of Capital Base Guideline* (available in French only), section 3.1, January 2013. http://www.lautorite.qc.ca/fr/lignes-directrices-i-d-pro.html

market exposures with other forms of collateral, to cover the potential loss of market value on those securities, 20% of the value of all such posted collateral, net of collateral received on a counterparty basis (provided that the collateral received is not subject to restrictions on reuse or rehypothecation) will be added to the stock of required HQLA by the institution posting such collateral. This 20% will be calculated based on the notional amount required to be posted as collateral after any other haircuts have been applied that may be applicable to the collateral category. Any collateral that is in a segregated margin account can only be used to offset outflows that are associated with payments that are eligible to be offset from that same account.

AMF Note

The notional amount to be collateralized in paragraph 119 is based on contractual terms (e.g. collateral agreements) that regularly include the methodology of calculating the amount to be covered ("notional amount").[86]

Netting of collateral inflows and outflows across counterparties is not permitted under paragraph 119 as the impacts of valuation changes (even of identical collateral) may be asymmetric across different counterparties.[87]

The net outflows under paragraph 119 may not be calculated taking into account any additional eligible non-Level 1 collateral that is unencumbered as of the date of the LCR or that would become unencumbered as a result of the stresses i.e. the LCR provides no basis for separate sub-pools of (non-Level 1) HQLA dedicated to specific liquidity needs or for considering contingent inflows of collateral.[88]

120. **Increased liquidity needs related to excess non-segregated collateral held by the institution that could contractually be called at any time by the counterparty:** 100% of the non-segregated collateral that could contractually be recalled by the counterparty because the collateral is in excess of the counterparty's current collateral requirements.

121. I**ncreased liquidity needs related to contractually required collateral on transactions for which the counterparty has not yet demanded the collateral be posted:** 100% of the collateral that is contractually due but where the counterparty has not yet demanded the posting of such collateral.

122. **Increased liquidity needs related to contracts that allow collateral substitution to non-HQLA assets:** 100% of the amount of HQLA collateral that can be substituted for non-HQLA assets without the institution's consent that have been received to secure transactions that have not been segregated.

86 BCBS, April 2014, FAQ 9(a).

87 BCBS, April 2014, FAQ 9(c).

88 BCBS, April 2014, FAQ 9(d).

AMF Note

The risks associated with collateral substitution on secured lending transactions with a residual maturity greater than 30 days should also be considered as a contingent outflow under paragraph 122.[89]

The 100% outflow factor in paragraph 122 refers to the market value of the received collateral that is subject to potential substitution after applying the respective haircut in the LCR. This provision does not require an outflow for potential collateral substitution that is greater than the liquidity value of the received HQLA collateral in the LCR.[90]

Under paragraph 122, if HQLA collateral (e.g. Level 1 assets) may be substituted for other HQLA collateral (e.g. Level 2 assets), an outflow amounting to the market value of the received collateral multiplied by the difference between the haircuts of the received collateral and the potential substitute collateral should be applied. If the substituted collateral can be of different liquidity value in the LCR, the institution should assume that the potential substitute collateral with the lowest liquidity value will be posted.[91]

Outflows of HQLA that are excluded from the institution's stock of HQLA due to operational requirements are not considered in paragraph 122.[92]

123. **Increased liquidity needs related to market valuation changes on derivative or other transactions:** As market practice requires collateralisation of mark-to-market exposures on derivative and other transactions, institutions face potentially substantial liquidity risk exposures to these valuation changes. Inflows and outflows of transactions executed under the same master netting agreement can be treated on a net basis. Any outflow generated by increased needs related to market valuation changes should be included in the LCR calculated by identifying the largest absolute net 30-day collateral flow realised during the preceding 24 months. The absolute net collateral flow is based on both realised outflows and inflows.

AMF Note

The largest absolute net 30-day collateral flow is the largest aggregated cumulative net collateral outflow or inflow at the end of all 30-day periods during the preceding 24 months. For this purpose, institutions have to consider all 30-day periods during the preceding 24 months. Netting should be considered on a portfolio level basis. Institution management should understand how collateral moves on a counterparty basis and is encouraged to review the potential outflow at that level. However, the primary mechanism for the "look-back approach" is collateral flows at the portfolio level.[93]

89 BCBS, April 2014, FAQ 1(d).

90 BCBS, April 2014, FAQ 9(f).

91 BCBS, April 2014, FAQ 9(g).

92 BCBS, April 2014, FAQ 9(h).

93 BCBS, April 2014, FAQ 10.

124. Loss of funding on asset-backed securities,[94] covered bonds and other structured financing instruments: The scenario assumes the outflow of 100% of the funding transaction maturing within the 30-day period, when these instruments are issued by the institution itself (as this assumes that the re-financing market will not exist).

AMF Note

Level 1 and Level 2 securities in a collateral pool (e.g. for covered bonds or other collateralized own issuances) that become unencumbered in the next 30 days due to the maturity of the instrument (covered bond or other collateralized own issuance) can be offset against the redemption payment for the maturing secured debt instrument. Such offsetting inflow amounts should consider the respective haircuts for Level 2 assets applied to the market value of the asset. Any net inflow should be considered as "other contractual cash flow" under paragraph 160.[95]

125. **Loss of funding on asset-backed commercial paper, conduits, securities investment vehicles and other such financing facilities**: (100% of maturing amount and 100% of returnable assets). Institutions having structured financing facilities that include the issuance of short-term debt instruments, such as asset backed commercial paper, should fully consider the potential liquidity risk arising from these structures. These risks include, but are not limited to, (i) the inability to refinance maturing debt, and (ii) the existence of derivatives or derivative-like components contractually written into the documentation associated with the structure that would allow the "return" of assets in a financing arrangement, or that require the original asset transferor to provide liquidity, effectively ending the financing arrangement ("liquidity puts") within the 30-day period. Where the structured financing activities of an institution are conducted through a special purpose entity[96] (such as a special purpose vehicle, conduit or structured investment vehicle - SIV), the institution should, in determining the HQLA requirements, look through to the maturity of the debt instruments issued by the entity and any embedded options in financing arrangements that may potentially trigger the "return" of assets or the need for liquidity, irrespective of whether or not the SPV is consolidated.

94 To the extent that sponsored conduits/SPVs are required to be consolidated under liquidity requirements, their assets and liabilities will be taken into account. Supervisors need to be aware of other possible sources of liquidity risk beyond that arising from debt maturing within 30 days.

95 BCBS, April 2014, FAQ 11.

96 A special purpose entity (SPE) is defined in Chapter 6 of AMF's *Adequacy of Capital Base Guideline* (financial services cooperatives) (available in French only), published in January 2014, as a corporation, trust, or other entity organised for a specific purpose, the activities of which are limited to those appropriate to accomplish the purpose of the SPE, and the structure of which is intended to isolate the SPE from the credit risk of an originator or seller of exposures. SPEs are commonly used as financing vehicles in which exposures are sold to a trust or similar entity in exchange for cash or other assets funded by debt issued by the trust. http://www.lautorite.qc.ca/en/d-i-guidelines-pro.html

Potential Risk Element	HQLA Required
Debt maturing within the calculation period	100% of maturing amount
Embedded options in financing arrangements that allow for the return of assets or potential liquidity support	100% of the amount of assets that could potentially be returned, or the liquidity required

126. **Drawdowns on committed credit and liquidity facilities**: For the purpose of the standard, credit and liquidity facilities are defined as explicit contractual agreements or obligations to extend funds at a future date to retail or wholesale counterparties. For the purpose of the standard, these facilities only include contractually irrevocable ("committed") or conditionally revocable agreements to extend funds in the future. Unconditionally revocable facilities that are unconditionally cancellable by the institution (in particular, those without a precondition of a material change in the credit condition of the borrower) are excluded from this section and included in "Other Contingent Funding Liabilities".

These off-balance sheet facilities or funding commitments can have long or short-term maturities, with short-term facilities frequently renewing or automatically rolling-over. In a stressed environment, it will likely be difficult for customers drawing on facilities of any maturity, even short-term maturities, to be able to quickly pay back the borrowings. Therefore, for purposes of this standard, all facilities that are assumed to be drawn (as outlined in the paragraphs below) will remain outstanding at the amounts assigned throughout the duration of the test, regardless of maturity.

127. For the purposes of this standard, the currently undrawn portion of these facilities is calculated net of any HQLA eligible for the stock of HQLA, if the HQLA have already been posted as collateral by the counterparty to secure the facilities or that are contractually obliged to be posted when the counterparty will draw down the facility (e.g. a liquidity facility structured as a repo facility), if the institution is legally entitled and operationally capable to re-use the collateral in new cash raising transactions once the facility is drawn, and there is no undue correlation between the probability of drawing the facility and the market value of the collateral. The collateral can be netted against the outstanding amount of the facility to the extent that this collateral is not already counted in the stock of HQLA, in line with the principle in paragraph 72 that items cannot be double-counted in the standard.

128. A liquidity facility is defined as any committed, undrawn back-up facility that would be utilised to refinance the debt obligations of a customer in situations where such a customer is unable to rollover that debt in financial markets (e.g. pursuant to a commercial paper program, secured financing transactions, obligations to redeem units, etc.). For the purpose of this standard, the amount of the commitment to be treated as a liquidity facility is the amount of the

currently outstanding debt issued by the customer (or proportionate share, if a syndicated facility) maturing within a 30 day period that is backstopped by the facility. The portion of a liquidity facility that is backing debt that does not mature within the 30-day window is excluded from the scope of the definition of a facility. Any additional capacity of the facility (i.e. the remaining commitment) would be treated as a committed credit facility with its associated drawdown rate as specified in paragraph 131. General working capital facilities for corporate entities (e.g. revolving credit facilities in place for general corporate or working capital purposes) will not be classified as liquidity facilities, but as credit facilities.

129. Notwithstanding the above, any facilities provided to hedge funds, money market funds and special purpose funding vehicles, for example SPEs (as defined in paragraph 125) or conduits, or other vehicles used to finance the institutions own assets, should be captured in their entirety as a liquidity facility to other legal entities.

130. For that portion of financing programs that are captured in paragraphs 124 and 125 (e.g. are maturing or have liquidity puts that may be exercised in the 30-day horizon), institutions that are providers of associated liquidity facilities do not need to double count the maturing financing instrument and the liquidity facility for consolidated programs.

131. Any contractual loan drawdowns from committed facilities[97] and estimated drawdowns from revocable facilities within the 30-day period should be fully reflected as outflows.

a) Committed credit and liquidity facilities to retail and small business customers: Institutions should assume a 5% drawdown of the undrawn portion of these facilities.

b) Committed credit facilities to non-financial corporates, sovereigns and central banks, PSEs and multilateral development banks: Institutions should assume a 10% drawdown of the undrawn portion of these credit facilities.

c) Committed liquidity facilities to non-financial corporates, sovereigns and central banks, PSEs, and multilateral development banks: Institutions should assume a 30% drawdown of the undrawn portion of these liquidity facilities.

d) Committed credit and liquidity facilities extended to institutions subject to prudential supervision: Institutions should assume a 40% drawdown of the undrawn portion of these facilities.

e) Committed credit facilities to other financial institutions including securities firms, insurance companies, fiduciaries,[98] and beneficiaries:[99] institutions

[97] Committed facilities refer to those which are irrevocable.

should assume a 40% drawdown of the undrawn portion of these credit facilities.

f) Committed liquidity facilities to other financial institutions including securities firms, insurance companies, fiduciaries, and beneficiaries: Institutions should assume a 100% drawdown of the undrawn portion of these liquidity facilities.

g) Committed credit and liquidity facilities to other legal entities (including SPEs (as defined on paragraph 125), conduits and special purpose vehicles[100] and other entities not included in the prior categories): institutions should assume a 100% drawdown of the undrawn portion of these facilities.

132. **Contractual obligations to extend funds within a 30-day period**. Any contractual lending obligations to financial institutions not captured elsewhere in this standard should be captured here at a 100% outflow rate.

133. If the total of all contractual obligations to extend funds to retail and non-financial corporate clients within the next 30 days (not captured in the prior categories) exceeds 50% of the total contractual inflows due in the next 30 days from these clients, the difference should be reported as a 100% outflow.

134. Other contingent funding obligations: (run-off rates at national discretion).

135. These contingent funding obligations may be either contractual or non-contractual and are not lending commitments. Non-contractual contingent funding obligations include associations with, or sponsorship of, products sold or services provided that may require the support or extension of funds in the future under stressed conditions. Non-contractual obligations may be embedded in financial products and instruments sold, sponsored, or originated by the institution that can give rise to unplanned balance sheet growth arising from support given for reputational risk considerations. These include products and instruments for which the customer or holder has specific expectations regarding the liquidity and marketability of the product or instrument and for which failure to satisfy customer expectations in a commercially reasonable manner would likely cause material reputational damage to the institution or otherwise impair ongoing viability.

136. Some of these contingent funding obligations are explicitly contingent upon a credit or other event that is not always related to the liquidity events simulated in the stress scenario, but may nevertheless have the potential to cause significant

98 Fiduciary is defined in this context as a legal entity that is authorized to manage assets on behalf of a third party. Fiduciaries include asset management entities such as pension funds and other collective investment vehicles.

99 Beneficiary is defined in this context as a legal entity that receives, or may become eligible to receive, benefits under a will, insurance policy, retirement plan, annuity, trust, or other contract.

100 The potential liquidity risks associated with the institution's own structured financing facilities should be treated according to paragraphs 124 & 125 of this document (100 % of maturing amount and 100 % of returnable assets are included as outflows).

liquidity drains in times of stress. For this standard, each supervisor and institution should consider which of these "other contingent funding obligations" may materialise under the assumed stress events. The potential liquidity exposures to these contingent funding obligations are to be treated as a nationally determined behavioural assumption where it is up to the AMF to determine whether and to what extent these contingent outflows are to be included in the LCR. All identified contractual and non-contractual contingent liabilities and their assumptions should be reported, along with their related triggers. Supervisors and institutions should, at a minimum, use historical behaviour in determining appropriate outflows.

137. Non contractual contingent funding obligations related to potential liquidity draws from joint ventures or minority investments in entities, which are not consolidated per paragraph 164, should be captured where there is the expectation that the institution will be the main liquidity provider when the entity is in need of liquidity. The amount included should be calculated in accordance with the methodology agreed by the institution's supervisor.

AMF Note

Where required, an outflow rate of 100% should be applied to amounts resulting from the calculation prescribed in paragraph 137.

As prescribed in paragraph 117, the AMF will determine the amount to be multiplied by the 100% rate after assessment of the institution's methodology related to such non-contractual contingent funding obligations, considering factors such as the nature of the exposure and the likelihood of draw.

138. In the case of contingent funding obligations stemming from trade finance instruments, national authorities can apply a relatively low run-off rate (e.g. 5% or less). Trade finance instruments consist of trade-related obligations directly underpinned by the movement of goods or the provision of services, such as:

- documentary trade letters of credit, documentary and clean collection, import bills, and export bills
- guarantees directly related to trade finance obligations, such as shipping guarantees

AMF Note

An outflow rate of 3% should be applied to trade finance instruments that fall under the scope of paragraph 138.

139. Lending commitments, such as direct import or export financing for non-financial corporate firms, are excluded from this treatment and institutions will apply the draw-down rates specified in paragraph 131.

140. National authorities should determine the run-off rates for the other contingent funding obligations listed below in accordance with paragraph 134. Other contingent funding obligations include products and instruments such as:

- unconditionally revocable "uncommitted" credit and liquidity facilities

AMF Note

An outflow rate of 2% should be applied to unconditionally revocable “uncommitted” credit and liquidity facilities provided to retail and small business customers (as defined in paragraph 73 and paragraphs 90 to 91, respectively).

Unconditionally revocable “uncommitted” credit and liquidity facilities provided to all other customers should be applied an outflow rate of 5%.

- guarantees and letters of credit unrelated to trade finance obligations (as described in paragraph 138)

AMF Note

An outflow rate of 5% should be applied to trade finance instruments that do not fall under the scope of paragraph 138.

- non-contractual obligations such as:
  - potential requests for debt repurchases of the institution's own debt or that of related conduits, securities investment vehicles and other such financing facilities;

AMF Note

No outflow should be applied against these non-contractual obligations (0% outflow rate).

  - structured products where customers anticipate ready marketability, such as adjustable rate notes and variable rate demand notes (VRDNs);

AMF Note

A 5% outflow rate should be applied against these structured products.

- Managed funds that are marketed with the objective of maintaining a stable value such as money market mutual funds or other types of stable value collective investment funds, etc.

AMF Note

No outflow rate should be applied against these managed funds.

- For issuers with an affiliated dealer or market maker, there may be a need to include an amount of the outstanding debt securities (unsecured and secured, term as well as short-term) having maturities greater than 30 days, to cover the potential repurchase of such outstanding securities.

AMF Note

No outflow should be applied against these non-contractual obligations (0% outflow rate).

- Non contractual obligations where customer short positions are covered by other customers' collateral: A minimum 50% run-off factor of the contingent obligations should be applied where institutions have internally matched client assets against other clients' short positions where the collateral does not qualify as Level 1 or Level 2, and the institution may be obligated to find additional sources of funding for these positions in the event of client withdrawals.

AMF Note

A 50% outflow rate should be applied against non-contractual obligations where customer short positions are covered by other customers' collateral.

141. **Other contractual cash outflows**: (100%). Any other contractual cash outflows within the next 30 days should be captured in this standard, such as outflows to cover unsecured collateral borrowings, uncovered short positions, dividends or contractual interest payments, with explanation given as to what comprises this bucket. Outflows related to operating costs, however, are not included in this standard.

AMF Note

The following transactions should be ignored for purposes of the LCR calculation:

- forward repos, forward reverse repos and forward collateral swaps that start and mature within the LCR's 30 day horizon
- forward repos, forward reverse repos and forward collateral swaps that start prior to and mature after the LCR's 30 day horizon
- all forward sales and forward purchases of HQLA
- unsettled sales and purchases of HQLA

For forward reverse repos and collateral swaps that start within the 30 day horizon and mature beyond the LCR's 30 day horizon:

- Cash outflows from forward reverse repos (with a binding obligation to accept) count toward "other contractual cash outflows" according to paragraph 141 and should be netted against the market value of the collateral received after deducting the haircut applied to the respective assets in the LCR (15% to Level 2A, 25% to RMBS Level 2B assets, and 50% to other Level 2B assets).

- In case of forward collateral swaps, the net amount between the market values of the assets extended and received after deducting the haircuts applied to the respective assets in the LCR counts toward "other contractual cash outflows" or "other contractual cash inflows", depending on which amount is higher.

Cash flows arising from purchases of non-HQLA that are executed but not yet settled at the reporting date should be treated as "other cash outflows".

Note that any outflows or inflows of HQLA in the next 30 days in the context of forward and unsettled transactions are only considered if the assets do or will count toward the bank's stock of HQLA. Outflows and inflows of HQLA-type assets that are or will be excluded from the bank's stock of HQLA due to operational requirements are treated like outflows or inflows of non-HQLA.[101]

2.2.2.2 Cash inflows

142. When considering its available cash inflows, the institution should only include contractual inflows (including interest payments) from outstanding exposures that are fully performing and for which the institution has no reason to expect a default within the 30-day time horizon. Contingent inflows are not included in total net cash inflows.

143. Institutions and supervisors need to monitor the concentration of expected inflows across wholesale counterparties in the context of institutions' liquidity management in order to ensure that their liquidity position is not overly dependent on the arrival of expected inflows from one or a limited number of wholesale counterparties.

[101] BCBS, April 2014, FAQ 15.

144. **Cap on total inflows**: In order to prevent institutions from relying solely on anticipated inflows to meet their liquidity requirement, and also to ensure a minimum level of HQLA holdings, the amount of inflows that can offset outflows is capped at 75% of total expected cash outflows as calculated in the standard. This requires that an institution must maintain a minimum amount of stock of HQLA equal to 25% of the total net cash outflows.

i) Secured lending, including reverse repos and securities borrowing

145. An institution should assume that maturing reverse repurchase or securities borrowing agreements secured by Level 1 assets will be rolled-over and will not give rise to any cash inflows (0%). Maturing reverse repurchases or securities lending agreements secured by Level 2 HQLA will lead to cash inflows equivalent to the relevant haircut for the specific assets. An institution is assumed not to roll-over maturing reverse repurchase or securities borrowing agreements secured by non-HQLA assets, and can assume to receive back 100% of the cash related to those agreements.

Collateralised loans extended to customers for the purpose of taking leveraged trading positions ("margin loans") should also be considered as a form of secured lending; however, for this scenario institutions may recognize no more than 50% of contractual inflows from maturing margin loans made against non-HQLA collateral. This treatment is in line with the assumptions outlined for secured funding in the outflows section.

AMF Note

Paragraph 145 and the table in paragraph 146 are specific to secured loans with a contractual maturity up to and including 30 days. Institutions should not assume any inflow for margin loans where funds are extended under "term" provisions – whereby the institution agrees to make funding available for a given period, but the client is not obliged to draw down on that funding, and where the client has drawn down on the funding – that give the client possibility to repay after more than 30 days.[102]

146. As an exception to paragraph 145, if the collateral obtained through reverse repo, securities borrowing, or collateral swaps, which matures within the 30-day horizon, is re-used (i.e. rehypothecated) and is used to cover short positions that could be extended beyond 30 days, an institution should assume that such reverse repo or securities borrowing arrangements will be rolled-over and will not give rise to any cash inflows (0%), reflecting its need to continue to cover the short position or to re-purchase the relevant securities. Short positions include both instances where in its 'matched book' the institution sold short a security outright as part of a trading or hedging strategy and instances where the institution is short a security in the 'matched' repo book (i.e. it has borrowed a security for a given period and lent the security out for a longer period).

[102] BCBS, April 2014, FAQ 13.

Maturing secured lending transactions backed by the following asset category:	Inflow rate (if collateral is not used to cover short positions)	Inflow rate (if collateral is used to cover short positions)
Level 1 assets	0%	0%
Level 2A assets	15%	0%
Level 2B assets • Eligible residential mortgage-backed securities • Other Level 2B assets	 25% 50%	 0% 0%
Margin lending backed by all collateral	50%	0%
Other collateral	100%	0%

AMF Note

Cash inflows associated with collateral swaps occur where the collateral lent is of higher-0 quality within the LCR framework than the collateral borrowed and the collateral borrowed has not been rehypothecated to cover short positions. Such cash inflow amounts are to be calculated as the difference between the inflow rate prescribed for non-rehypothecated collateral in the table in paragraph 146 for the collateral borrowed and outflow rate prescribed in the table in paragraph 115 for the collateral lent. For example, where Level 2B non-RMBS assets are borrowed but not rehypothecated to cover short positions and Level 2A assets are lent, a 35% outflow rate should be allocated. Similarly, where non-HQLA are borrowed but not rehypothecated to cover short positions and Level 2A assets are lent, an 85% outflow rate should be allocated. Note that inflows should not be allocated when the collateral lent and collateral borrowed are of the same LCR type or when the collateral borrowed has been used to cover short positions.

Forward reverse repos and forward collateral swaps that start previous to and mature within the LCR's 30-day horizon should be treated like reverse repos and collateral swaps according to paragraphs 145 to 148.[103]

The inflow rates in the third column of the table in paragraph 146 apply to all reverse repos, securities borrowings or collateral swaps where the collateral obtained is used to cover short positions. The reference in the first sentence of paragraph 146 to "short positions that could be extended beyond 30 days" does not restrict the applicability of the 0% inflow rate to the portion of secured lending transactions where the collateral obtained covers short positions with a contractual (or otherwise expected) residual maturity of up to 30 days. Rather, it is intended to point out that the institution must be aware that such short positions may be extended, which would require the institution to roll the secured lending transaction or to purchase the securities in order to keep the short positions covered. In either case, the secured lending transaction would not lead to a cash inflow for the institution's liquidity situation in a way that it can be considered in the LCR.[104]

[103] BCBS, April 2014, FAQ 15.

[104] BCBS, April 2014, FAQ 18.

147. In the case of an institution's short positions, if the short position is being covered by an unsecured security borrowing, the institution should assume the unsecured security borrowing of collateral from financial market participants would run-off in full, leading to a 100% outflow of either cash or HQLA to secure the borrowing, or cash to close out the short position by buying back the security. This should be recorded as a 100% other contractual outflow according to paragraph 141. If, however, the institution's short position is being covered by a collateralised securities financing transaction, the institution should assume the short position will be maintained throughout the 30-day period and receive a 0% outflow.

148. Despite the roll-over assumptions in paragraphs 145 and 146, an institution should manage its collateral such that it is able to fulfil obligations to return collateral whenever the counterparty decides not to roll-over any reverse repo or securities lending transaction.[105] This is especially the case for non-HQLA collateral, since such outflows are not captured in the LCR framework. Supervisors should monitor the institution's collateral management.

ii. Committed facilities

149. No credit facilities, liquidity facilities or other contingent funding facilities that the institution holds at other institutions for its own purposes are assumed to be able to be drawn. Such facilities receive a 0% inflow rate, meaning that this scenario does not consider inflows from committed credit or liquidity facilities. This is to reduce the contagion risk of liquidity shortages at one institution causing shortages at other institutions and to reflect the risk that other institutions may not be in a position to honour credit facilities, or may decide to incur the legal and reputational risk involved in not honouring the commitment, in order to conserve their own liquidity or reduce their exposure to that institution.

iii. No inflows by counterparty

150. For all other types of transactions, either secured or unsecured, the inflow rate will be determined by counterparty. In order to reflect the need for an institution to conduct ongoing loan origination/roll-over with different types of counterparties, even during a time of stress, a set of limits on contractual inflows by counterparty type is applied.

151. When considering loan payments, the institution should only include inflows from fully performing loans. Further, inflows should only be taken at the latest possible date, based on the contractual rights available to counterparties. For revolving credit facilities, this assumes that the existing loan is rolled over and that any remaining balances are treated in the same way as a committed facility according to paragraph 131.

[105] This is compliant with Principle 9 of BCBS's *Sound Principles*.

152. Inflows from loans that have no specific maturity (i.e. have non-defined or open maturity) should not be included; therefore, no assumptions should be applied as to when maturity of such loans would occur. An exception to this would be minimum payments of principal, fee or interest associated with an open maturity loan, provided that such payments are contractually due within 30 days. These minimum payment amounts should be captured as inflows at the rates prescribed in paragraphs 153 and 154.

a) Retail and small business customer inflows

153. This scenario assumes that institutions will receive all payments (including interest payments and instalments) from retail and small business customers that are fully performing and contractually due within a 30-day horizon. At the same time, however, institutions are assumed to continue to extend loans to retail and small business customers, at a rate of 50% of contractual inflows. This results in a net inflow number of 50% of the contractual amount.

b) Other wholesale inflows

154. This scenario assumes that institutions will receive all payments (including interest payments and instalments) from wholesale customers that are fully performing and contractually due within the 30-day horizon. In addition, institutions are assumed to continue to extend loans to wholesale clients, at a rate of 0% of inflows for financial institutions and central banks, and 50% for all others, including non-financial corporates, sovereigns, multilateral development banks, and PSEs. This will result in an inflow percentage of:

- 100% for financial institution and central bank counterparties;
- 50% for non-financial wholesale counterparties.

AMF Note

Stamped bankers' acceptance (BA) assets held by the institution that mature within 30 days should be included under paragraph 154.

Non-operational demand deposits placed by an indirect clearer (that is not a subsidiary of a direct clearer) with an AMF-regulated direct clearer will receive a 100% inflow rate and such deposit inflows will not be subject to the 75% inflow cap calculation outlined in paragraph 144.

155. Inflows from securities maturing within 30 days not included in the stock of HQLA should be treated in the same category as inflows from financial institutions (i.e. 100% inflow). Institutions may also recognize in this category inflows from the release of balances held in segregated accounts in accordance with regulatory requirements for the protection of customer trading assets, provided that these segregated balances are maintained in HQLA. This inflow should be calculated in line with the treatment of other related outflows and inflows covered in this standard. Level 1 and Level 2 securities maturing within

30 days should be included in the stock of liquid assets, provided that they meet all operational and definitional requirements, as laid out in paragraphs 28 to 54.

AMF Note

Assets that fulfil the requirements of HQLA eligibility shall be considered as such and not as inflows. Institutions may not count as inflows the difference between the actual redemption amount of Level 2 securities and the amount considered as HQLA (e.g. after application of the LCR haircut).

Maturing assets including Level 1 and Level 2 assets that are not HQLA-eligible due to the operational requirements may be considered as inflows under paragraph 155.

Inflows from maturing securities in a collateral pool for covered bonds can be considered as inflows even if the maturing securities are (or have been) excluded from the stock of HQLA due to being "encumbered" according to paragraph 31.

However, if the maturing securities need to be substituted in the collateral pool within the 30-day horizon, an "other cash outflow" per paragraph 141 should be considered amounting to the liquidity value of these securities in the LCR.[106]

156. *Operational deposits*: Deposits held at other financial institutions for operational purposes, as outlined in paragraphs 93 to 103, such as for clearing, custody, and cash management purposes, are assumed to stay at those institutions, and no inflows can be counted for these funds – e.g. they will receive a 0% inflow rate, as noted in paragraph 98.

AMF Note

For purposes of paragraph 156, where a non-foreign indirect clearer (that is not a subsidiary of a direct clearer) holds operational deposits at their direct clearer in respect of clearing-related activities, the indirect clearer may recognize a 25% inflow rate for such deposits.

In addition, these deposit inflows will not be subject to the 75% inflow cap calculation outlined in paragraph 144.

The same methodology applied in paragraphs 93 to 104 for operational deposit outflows should also be applied to determine if deposits held at another financial institution are operational deposits and receive the inflow outlined in paragraph 156.

As a general principle if the institution receiving the deposit classifies the deposit as operational, the institution placing it should also classify it as an operational deposit.[107]

157. The same treatment applies for deposits held at the centralised institution in a cooperative banking network, that are assumed to stay at the centralised institution as outlined in paragraphs 105 and 106; in other words, the depositing

[106] BCBS, April 2014, FAQ 19.

[107] BCBS, April 2014, FAQ 14.

institution should not count any inflow for these funds – i.e. they will receive a 0% inflow rate.

iv. Other cash inflows

158. *Derivatives cash inflows*: the sum of all net cash inflows should receive a 100% inflow factor. The amounts of derivatives cash inflows and outflows should be calculated in accordance with the methodology described in paragraph 116.

159. Where *derivatives* are collateralised by HQLA, cash inflows should be calculated net of any corresponding cash or contractual collateral outflows that would result, all other things being equal, from contractual obligations for cash or collateral to be posted by the institution, given these contractual obligations would reduce the stock of HQLA. This is in accordance with the principle that institutions should not double-count liquidity inflows or outflows.

160. *Other contractual cash inflows*: Other contractual cash inflows should be captured here, with explanation given to what comprises this bucket. Inflow percentages should be determined as appropriate for each type of inflow by supervisors in each jurisdiction. Cash inflows related to non-financial revenues are not taken into account in the calculation of the net cash outflows for the purposes of this standard.

AMF Note

For forward repos and collateral swaps that start within the 30-day horizon and mature beyond the LCR's 30-day horizon:

- Cash inflows from forward repos are "other contractual cash inflows" according to paragraph 160 and should be netted against the market value of the collateral extended after deducting the haircut applied to the respective assets in the LCR.

- In case of forward collateral swaps, the net amount between the market values of the assets extended and received after deducting the haircuts applied to the respective assets in the LCR counts towards "other contractual cash outflows" or "other contractual cash inflows" depending on which amount is higher.

Cash flows arising from sales of non-HQLA that are executed but not yet settled at the reporting date should be treated as "other cash inflows".

Note that any outflows or inflows of HQLA in the next 30 days in the context of forward and unsettled transactions are only considered if the assets do or will count toward the bank's stock of HQLA.

Outflows and inflows of HQLA-type assets that are or will be excluded from the bank's stock of HQLA due to operational requirements are treated like outflows or inflows of non-HQLA.[108]

HQLA lent by an institution without any further offsetting transaction (i.e. no repo/reverse repo or collateral swap) can count towards "other contractual cash inflows" – at their market value after application of the relevant LCR haircut – if the assets will be returned or can be recalled during the next 30 days.[109]

2.3 Application issues for the LCR

161. This section outlines a number of issues related to the application of the LCR. These issues include the frequency with which institutions calculate and report the LCR, the scope of application of the LCR (whether they apply at group or entity level and to foreign bank branches) and the aggregation of currencies within the LCR.

2.3.1 Frequency of calculation and reporting

162. The LCR should be used on an ongoing basis to help monitor and control liquidity risk. The LCR should be reported to supervisors at least monthly, with the operational capacity to increase the frequency to weekly or even daily in stressed situations at the discretion of the supervisor. The time lag in reporting should be as short as feasible and really should not surpass two weeks.

163. Institutions are expected to inform the AMF of their LCR and their liquidity profile on an ongoing basis. Institutions should also notify the AMF immediately if their LCR has fallen, or is expected to fall, below 100%.

[108] BCBS April 2014, FAQ 15.

[109] BCBS April 2014, FAQ 16.

2.3.2 Scope

164. Not applicable.

165. In addition to the scope of application, the AMF will determine which investments in banking, securities and financial entities of a deposit-taking group that are not consolidated per paragraph 164 should be considered significant, taking into account the liquidity impact of such investments on the group under the LCR standard. Normally, a non-controlling investment (e.g. a joint-venture or minority-owned entity) can be regarded as significant if the deposit-taking group will be the main liquidity provider of such investment in times of stress (for example, when the other shareholders are non-banks or where the institution is operationally involved in the day-to-day management and monitoring of the entity's liquidity risk). The AMF will agree with each relevant institution on a case-by-case basis on an appropriate methodology for how to quantify such potential liquidity draws, in particular, those arising from the need to support the investment in times of stress out of reputational concerns for the purpose of calculating the LCR standard. To the extent that such liquidity draws are not included elsewhere, they should be treated under "Other contingent funding obligations", as described in paragraph 137.

166. In line of the Principle 6 as outlined in the Sound Principles and the Principle 5 of AMF's *Liquidity Risk Management Guideline*, an institution should actively monitor and control liquidity risk exposures and funding needs at the level of individual legal entities, foreign branches and subsidiaries, and the group as a whole, taking into account legal, regulatory and operational limitations to the transferability of liquidity.

167. To ensure consistency in applying the consolidated LCR across jurisdictions, further information is provided below on two application issues.

2.3.2.1 Differences in home / host liquidity requirements

168. While most of the parameters in the LCR are internationally "harmonised", national differences in liquidity treatment may occur in those items subject to national discretion (e.g. deposit run-off rates, contingent funding obligations, market valuation changes on derivative transactions, etc.) and where more stringent parameters are adopted by some supervisors.

169. When calculating the LCR on a consolidated basis, a cross-border deposit-taking group should apply the liquidity parameters adopted in the home jurisdiction to all legal entities being consolidated except for the treatment of retail / small business deposits that should follow the relevant parameters adopted in host jurisdictions in which the entities (branch or subsidiary) operate. This approach will enable the stressed liquidity needs of legal entities of the group (including branches of those entities) operating in host jurisdictions to be more suitably reflected, given that deposit run-off rates in host jurisdictions are more influenced by jurisdiction-specific factors such as the type and

effectiveness of deposit insurance schemes in place and the behaviour of local depositors.

170. Home requirements for retail and small business deposits should apply to the relevant legal entities (including branches of those entities) operating in host jurisdictions if: (i) there are no host requirements for retail and small business deposits in the particular jurisdictions; (ii) those entities operate in host jurisdictions that have not implemented the LCR; or (iii) the home supervisor decides that home requirements should be used that are stricter than the host requirements.

2.3.2.2 Treatment of liquidity transfer restrictions

171. As noted in paragraph 36, as a general principle, no excess liquidity should be recognized by a cross-border deposit-taking group in its consolidated LCR if there is reasonable doubt about the availability of such liquidity. Liquidity transfer restrictions (e.g. ring-fencing measures, non-convertibility of local currency, foreign exchange controls, etc.) in jurisdictions in which a deposit-taking group operates will affect the availability of liquidity by inhibiting the transfer of HQLA and fund flows within the group. The consolidated LCR should reflect such restrictions in a manner consistent with paragraph 36. For example, the eligible HQLA that are held by a legal entity being consolidated to meet its local LCR requirements (where applicable) can be included in the consolidated LCR to the extent that such HQLA are used to cover the total net cash outflows of that entity, notwithstanding that the assets are subject to liquidity transfer restrictions. If the HQLA held in excess of the total net cash outflows are not transferable, such surplus liquidity should be excluded from the standard.

172. For practical reasons, the liquidity transfer restrictions to be accounted for in the consolidated ratio are confined to existing restrictions imposed under applicable laws, regulations and supervisory requirements.[110] A deposit-taking group should have processes in place to capture all liquidity transfer restrictions to the extent practicable, and to monitor the rules and regulations in the jurisdictions in which the group operates and assess their liquidity implications for the group as a whole.

2.3.3 Currencies

173. As outlined in paragraph 42, while the LCR is expected to be met on a consolidated basis and reported in a common currency, supervisors and institutions should also be aware of the liquidity needs in each significant currency. As indicated in the LCR, the currencies of the stock of HQLA should be similar in composition to the operational needs of the institution. Institutions and supervisors cannot assume that currencies will remain transferable and convertible in a stress period, even for currencies that in normal times are freely transferable and highly convertible.

[110] There are a number of factors that can impede cross-border liquidity flows of a deposit-taking group, many of which are beyond the control of the group and some of these restrictions may not be clearly incorporated into law or may become visible only in times of stress.

Chapter 3. Monitoring tools

Notice

The following paragraphs are taken from the document *Basel III: The Liquidity Coverage Ratio and liquidity risk monitoring tools*, published by the Basel Commitee in January 2013.

The AMF incorporates and adapts certain paragraphs of the document to facilitate compatibility with national and international standards. The Basel numbering is maintained.

174. In addition to the LCR outlined in the preceding section outlines metrics to be used as consistent monitoring tools. These metrics capture specific information related to an institution's cash flows, balance sheet structure, available unencumbered collateral and certain market indicators.

175. These metrics, together with the LCR standard, provide the cornerstone of information that aid AMF in assessing the liquidity risk of an institution. In utilising these metrics, AMF will take action when:

- potential liquidity difficulties are signals through a negative trend in the metrics, or when a deteriorating liquidity position is identified;
- the absolute result of the metric identifies a current; or
- there is potential liquidity problem.

Examples of actions that AMF can take are outlined in the Committee's Sound Principles[111] (paragraphs 141 to 143).

AMF Note

The monitoring tools described in this section do not represent precise ratios, in the sense that they do not represent thresholds to be respected. However, the AMF might establish quantitative or quantitative prudential standards which will have to be respected in addition with those exposed in this chapter.

176. The metrics discussed in paragraph 75 include the following:

a. contractual maturity mismatch

b. concentration of funding

c. available unencumbered assets

[111] Bank for International Settlements, Basel Committee on Banking Supervision, *Principles for Sound Liquidity Risk Management and Supervision*, September 2008. http://www.bis.org/publ/bcbs144.htm

d. LCR by significant currency

e. market-related monitoring tools

177 to 187. These paragraphs are not being retained by the AMF but the AMF introduces another metric which is described in Chapter 5 of this Guideline.

3.1 Concentration of funding

3.1.1 Objective

188. This metric is meant to identify those sources of wholesale funding that are of such significance that withdrawal of this funding could trigger liquidity problems. The metric thus encourages the diversification of funding sources recommended in the Committee's *Sound Principles* and the Principle 8 of the AMF's *Liquidity Risk Management Guideline*.

3.1.2 Definition and practical application of the metric

A. Funding liabilities sources from each significant counterparty as a % of total liabilities

B. Funding liabilities sources from each significant product/instrument as a % of total liabilities

C. List of asset and liability amounts by significant currency

3.1.3 Calculation of metric

189. The numerator for A and B are determined by examining funding concentrations by counterparty or type of instrument/product. Both the absolute percentage of the funding exposure, as well as significant increases in concentrations should be monitored.

3.1.3.1 Significant counterparties

190. The numerator for counterparties is calculated by aggregating the total of all types of liabilities to a single counterparty or group of connected or affiliated counterparties, as well as all other direct borrowings, both secured and unsecured, which the institution can determine arise from the same counterparty[112] (such as for overnight commercial paper / certificate of deposit (CP/CD) funding).

191. A "significant counterparty" is defined as a single counterparty or group of connected or affiliated counterparties accounting in aggregate for more than 1% of the institution's total balance sheet, although in some cases there may be

[112] For some funding sources, such as debt issues that are transferable across counterparties (such as CP/CD funding dated longer than overnight, etc.), it is not always possible to identify the counterparty holding the debt.

other defining characteristics based on the funding profile of the institution. A group of connected counterparties is, in this context, defined in the same way as in the “Large Exposure” regulation of the host country in the case of consolidated reporting for solvency purposes. Intra-group deposits and deposits from related parties should be identified specifically under this metric, regardless of whether the metric is being calculated at a legal entity or group level, due to the potential limitations to intra-group transactions in stressed conditions.

3.1.3.2 Significant instruments / products

192. The numerator for type of instrument/product should be calculated for each individually significant funding instrument/product, as well as by calculating groups of similar types of instruments/products.

193. A “significant instrument/product” is defined as a single instrument/product or group of similar instruments/products that in aggregate amount to more than 1% of the institution's total balance sheet.

3.1.3.3 Significant currencies

194. In order to capture the amount of structural currency mismatch in an institution’s assets and liabilities, institutions are required to provide a list of the amount of assets and liabilities in each significant currency.

AMF Note

Institutions will not need to provide separate information on asset and liability categories where significant currencies relate to CAN, USD, GBP and EUR as this information will be provided through reporting of individual currency balance sheets and individual currency liquid assets in the NCCF.

However, institutions are required to provide information on the NCCF asset and liability categories in currencies other than the four listed above, to the extent they are above the significant currency threshold described in paragraph 195.

195. A currency is considered “significant” if the aggregate liabilities denominated in that currency amount to 5% or more of the institution's total liabilities.

3.1.3.4 Time buckets

196. The above metrics should be reported separately for the time horizons of less than one month, 1-3 months, 3-6 months, 6-12 months, and for longer than 12 months.

3.1.4 Utilisation of the metric

197. In utilising this metric to determine the extent of funding concentration to certain counterparty, both the institution must and the AMF will recognize that currently

it is not possible to identify the actual funding counterparty for many types of debt.[113] The actual concentration of funding sources, therefore, could likely be higher than this metric indicates. The list of significant counterparties could change frequently, particularly during a crisis. The AMF will consider the potential for herding behaviour on the part of funding counterparties in the case of an institution-specific problem. In addition, under market-wide stress, multiple funding counterparties and the institution itself may experience concurrent liquidity pressures, making it difficult to sustain funding, even if sources appear well diversified.

198. In interpreting this metric, one must recognize that the existence of bilateral funding transactions may affect the strength of commercial ties and the amount of the net outflow.[114]

199. These metrics do not indicate how difficult it would be to replace funding from any given source.

200. To capture potential foreign exchange risks, the comparison of the amount of assets and liabilities by currency will provide the AMF with a baseline for discussions with the institutions about how they manage any currency mismatches through swaps, forwards, etc. It is meant to provide a base for further discussions with the institution rather than to provide a snapshot view of the potential risk.

3.2 Available unencumbered assets

3.2.1 Objective

201. These metrics provide AMF with data on the quantity and key characteristics, including currency denomination and location, of institutions' available unencumbered assets. These assets have the potential to be used as collateral to raise additional HQLA or secured funding in secondary markets or are eligible at central banks and as such may potentially be additional sources of liquidity for the institution.

3.2.2 Definition and practical application of the metric

Available unencumbered assets that are marketable as collateral in secondary markets

and

Available unencumbered assets that are eligible for central banks' standing facilities

[113] Refer to Footnote 111.

[114] For example, where the monitored institution also extends funding or has large unused credit lines outstanding to the "significant counterparty".

202. An institution is to report the amount, type and location of available unencumbered assets that could serve as collateral for secured borrowing in secondary markets at prearranged or current haircuts at reasonable costs.

203. Likewise, an institution should report the amount, type and location of available unencumbered assets that are eligible for secured financing with relevant central banks at prearranged (if available) or current haircuts at reasonable costs, for standing facilities only (i.e. excluding emergency assistance arrangements). This would include collateral that has already been accepted at the central bank but remains unused. For assets to be counted in this metric, the institution must have already put in place the operational procedures that would be needed to monetise the collateral.

204. An institution should report separately the customer collateral received that the institution is permitted to deliver or re-pledge, as well as the part of such collateral that it is delivering or re-pledging at each reporting date.

205. In addition to providing the total amounts available, an institution should report these items categorised by significant currency. A currency is considered "significant" if the aggregate stock of available unencumbered collateral denominated in that currency amounts 5% or more of the associated total amount of available unencumbered collateral (for secondary markets or central banks).

206. In addition, an institution must report the estimated haircut that the secondary market or relevant central bank would require for each asset. In the case of the latter, an institution would be expected to reference, under business as usual, the haircut required by the central bank that it would normally access (which likely involves matching funding currency – e.g. ECB for euro-denominated funding, Bank of Japan for yen funding, etc.).

207. As a second step after reporting the relevant haircuts, an institution should report the expected monetised value of the collateral (rather than the notional amount) and where the assets are actually held, in terms of the location of the assets and what business lines have access to those assets.

3.2.3 Utilisation of the metric

208. These metrics are useful for examining the potential for an institution to generate an additional source of HQLA or secured funding. They will provide a standardised measure of the extent to which the LCR can be quickly replenished after a liquidity shock either via raising funds in private markets or utilising central bank standing facilities.

The metrics do not, however, capture potential changes in counterparties' haircuts and lending policies that could occur under either a systemic or idiosyncratic event and could provide false comfort that the estimated monetised value of available unencumbered collateral is greater than it would be when it is most needed. The AMF is aware that these metrics do not compare available unencumbered assets to the amount of outstanding secured

funding or any other balance sheet scaling factor. To gain a more complete picture, the information generated by these metrics should be complemented with the maturity mismatch metric and other balance sheet data.

3.3 LCR by significant currency

3.3.1 Objective

209. While the LCR is required to be met in one single currency, in order to better capture potential currency mismatches, institutions should and the AMF will also monitor the LCR in significant currencies. This will allow the institution and the AMF to track potential currency mismatch issues that could arise.

3.3.2 Definition and practical application of the metric

Foreign Currency LCR = Stock of HQLA in each significant currency / Total net cash outflows over a 30-day time period in each significant currency

*Amount of total net foreign exchange cash outflows should be net of foreign exchange hedges

210. The definition of the stock of high-quality foreign exchange assets and total net foreign exchange cash outflows should mirror those of the LCR for common currencies.[115]

211. A currency is considered “significant” if the aggregate liabilities denominated in that currency amount to 5% or more of the institution's total liabilities.

212. As the foreign currency LCR is not a standard but a monitoring tool, it does not have an internationally defined minimum required threshold. Nonetheless, the AMF could set minimum monitoring ratios for the foreign exchange LCR, below it should be alerted. In this case, the ratio at which the AMF should be alerted would depend on the stress assumption. The AMF will evaluate institutions’ ability to raise funds in foreign currency markets and the ability to transfer a liquidity surplus from one currency to another and across jurisdictions and legal entities.

3.3.3 Utilisation of the metric

213. This metric is meant to allow the institution and the AMF to track potential currency mismatch issues that could arise in a time of stress.

[115] Cash flows from assets, liabilities and off-balance sheet items will be computed in the currency that the counterparties are obliged to deliver to settle the contract, independent of the currency to which the contract is indexed (or "linked"), or the currency whose fluctuation it is intended to hedge.

3.4 Market-related monitoring tools

3.4.1 Objective

214. High frequency market data with little or no time lag can be used as early warning indicators in monitoring potential liquidity difficulties at institutions.

3.4.2 Definition and practical application of the metric

215. While there are many types of data available in the market, the AMF will monitor data at the following levels to focus on potential liquidity difficulties:

- market-wide information
- information on the financial sector
- institution-specific information

3.4.2.1 Market-wide information

216. The AMF will monitor information both on the absolute level and direction of major markets and consider their potential impact on the financial sector and the specific institution. Market-wide information is also crucial when evaluating assumptions behind an institution's funding plan.

217. Valuable market information to monitor includes, but is not limited to, equity prices (e.g. overall stock markets and sub-indices in various jurisdictions relevant to the activities of the supervised institutions), debt markets (money markets, medium-term notes, long term debt, derivatives, government bond markets, credit default spread indices, etc.); foreign exchange markets, commodities markets, and indices related to specific products, such as for certain securitised products (e.g. the ABX).

AMF Note

Institutions do not need to provide information to the AMF related to the market-wide information mentioned in paragraphs 216 and 217. The AMF will obtain such information from its regular monitoring of major markets and the economy more broadly.

3.4.2.2 Information on the financial sector

218. To track whether the financial sector as a whole is mirroring broader market movements or is experiencing difficulties, information to be monitored includes equity and debt market information for the financial sector broadly and for specific subsets of the financial sector, including indices.

AMF Note

Institutions do not need to provide information to the AMF related to the financial sector information mentioned in paragraph 218. The AMF will obtain such information from its regular monitoring of indicators relevant to the financial sector.

3.4.2.3 Institution-specific information

219. To monitor whether the market is losing confidence in a particular institution or has identified risks at an institution, it is useful to collect information on equity prices, CDS spreads, money-market trading prices, the situation of roll-overs and prices for various lengths of funding, the price/yield of institution debenture or subordinated debt in the secondary market.

AMF Note

Regarding institution-specific information, the AMF will request a number of metrics including but not limited to:

- timely information from institutions that details costs of unsecured and secured funding for various tenors and by specific instruments that are issued
- current short term secured and unsecured funding spreads (i.e. overnight, 1 week, 1 month, 3 month, 6 month, 1 year funding)
- material balances held at central banks or other financial institutions
- trends in deposit liabilities, including retail, corporate and wholesale deposits;
- trends in collateral flows, including gross inflows and outflows, net balances, and stress test projections
- trends in cross border flows

3.4.3 Utilisation of the metric / data

220. Information such as equity prices and credit spreads are readily available. However, the accurate interpretation of such information is important. For instance, the same CDS spread in numerical terms may not necessarily imply the same risk across markets due to market-specific conditions such as low market liquidity. Also, when considering the liquidity impact of changes in certain data points, the reaction of other market participants to such information can be different, as various liquidity providers may emphasize different types of data.

Chapter 4. Monitoring tools for intraday liquidity management

Notice

The following paragraphs were taken from the document *Monitoring Tools for Intraday Liquidity Management,* published in January 2013 by the Basel Committee.

The AMF uses the wording of some paragraphs (prior to adaptation). In order to facilitate the comparison between national and international standards, the numbering of Basel paragraphs is maintained.

AMF Note

At this point in time, the provisions in this chapter are provided for information purposes as the AMF will not require institutions to provide such information via regulatory reporting beginning in January 2015. However, the AMF will continue to review the applicable implementation date for these metrics, which will be—at latest—January 1, 2017, and will discuss the proposed timing of rollout with institutions in advance of taking a final decision.

That said, the AMF strongly recommends that institutions use these provisions as sound practices for managing intraday liquidities.

4.1 Introduction

1. Management of intraday liquidity risk forms a key element of an institution's overall liquidity risk management framework as outlined in Basel Committee Sound Principles[116] and AMF's *Liquidity Risk Management Guideline.*[117] These documents provide guidance for institutions on their management of liquidity risk and collateral. Principle 8 of the S*ound Principles* focuses specifically on intraday liquidity risk and states that an institution should actively manage its intraday liquidity positions and risks to meet payment and settlement obligations on a timely basis under both normal and stressed conditions and thus contribute to the smooth functioning of payment and settlement systems.

2. This principle identifies six operational elements that should be included in an institution's strategy for managing intraday liquidity risk. These state that an institution should:

    - Have the capacity to measure expected daily gross liquidity inflows and outflows, anticipate the intraday timing of these flows where possible, and

[116] Bank for International Settlements, Basel Committee on Banking Supervision, *Principles for Sound Liquidity Risk Management and Supervision,* September 2008. http://www.bis.org/publ/bcbs144.htm

[117] Autorité des marchés financiers, *Liquidity Risk Management Guideline*, April 2009. http://www.lautorite.qc.ca/files/pdf/reglementation/lignes-directrices-toutes-institutions/2009mai26-ld-liquidite-en.pdf

forecast the range of potential net funding shortfalls that might arise at different points during the day.

- Have the capacity to monitor intraday liquidity positions against expected activities and available resources (balances, remaining intraday credit capacity and available collateral).

- Arrange to acquire sufficient intraday funding to meet its intraday objectives.

- Have the ability to manage and mobilise collateral as necessary to obtain intraday funds.

- Have a robust capability to manage the timing of its liquidity outflows in line with its intraday objectives.

- Be prepared to deal with unexpected disruptions to its intraday liquidity flows.

3. The objective of the Liquidity Coverage Ratio (LCR) is to promote the short-term resilience of the liquidity risk profile of institutions, but does not include intraday liquidity within its calibration.

4. The Basel Commitee, in consultation with the Committee on Payment and Settlement Systems (CPSS)[118] has developed a set of quantitative tools to enable banking supervisors to monitor institution' intraday liquidity risk and their ability to meet payment and settlement obligations on a timely basis under both normal and stressed conditions. The monitoring tools will complement the qualitative guidance in the *Sound Principles* and also AMF's *Liquidity Risk Management Guideline*.

5. Given the close relationship between the management of institutions' intraday liquidity risk and the smooth functioning of payment and settlement systems,[119] the tools will also be of benefit to central bank or other authorities responsible for the oversight of payment and settlement systems (overseers). It is envisaged that the introduction of monitoring tools for intraday liquidity will lead to closer co-operation between banking supervisors and the overseers in the monitoring of institutions' payment behaviour.

6. It is important to note that the tools are being introduced for monitoring purposes only. Internationally active institutions will be required to apply these tools. These tools may also be useful in promoting sound liquidity management

[118] The CPSS serves as a forum for central banks to monitor and analyse developments in payment and settlement arrangements as well as in cross-border and multicurrency settlement schemes. It consists of senior officials responsible for payment and settlement systems in central banks. The CPSS Secretariat is hosted by the BIS.

[119] Where reference is made in this paper to payment and settlement systems, the term is understood to encompass payment systems and clearing and settlement systems for securities and derivatives (including central counterparties).

practices for other institutions, whether they are direct participants[120] of a large-value payment system (LVPS)[121] or use a correspondent institution to settle payments. National supervisors will determine the extent to which the tools apply to non-internationally active institutions within their jurisdictions.

7. Consistent with their broader liquidity risk management responsibilities, institution management will be responsible for collating and submitting the monitoring data for the tools to the AMF. It is recognized that institutions may need to liaise closely with counterparts, including payment system operators and correspondent institutions, to collate these data. However, institutions and supervisors are not required to disclose these reporting requirements publicly. Public disclosure is not intended to be part of these monitoring tools.

AMF Note

The AMF, as supervisor of the institutions subject to the Liquidity Adequacy Requirements, and the Bank of Canada, as overseers of the Canadian payment and settlement system, will, collectively, be responsible for administering the package of intraday liquidity monitoring tools.

8. The following sections of this document set out the:

- definitions of intraday liquidity and intraday liquidity risk and the elements that constitute an institution's intraday liquidity sources and usage
- detailed design of the intraday liquidity monitoring tools
- intraday liquidity stress scenarios
- scope of application of the tools
- implementation date and reporting frequency

120 "Direct participant" means a participant in a large-value payment system that can settle transactions without using an intermediary. If not a direct participant, a participant will need to use the services of a direct participant (a correspondent institution) to perform particular settlements on its behalf. Institutions can be a direct participant in a large-value payment system while using a correspondent institution to settle particular payments, for example, payments for an ancillary system.

121 An LVPS is a funds transfer system that typically handles large-value and high-priority payments. In contrast to retail payment systems, many LVPSs are operated by central banks, using an RTGS or equivalent mechanism. Commitee on Payment and Settlement Systems, Technical Commitee of the International Organization of Securities Commissions, *Principles for financial market Infrastructure*, Section 1.10, April 2012. http://www.bis.org/cpmi/publ/d101a.pdf

4.2 Definitions, sources and usage of intraday liquidity

4.2.1 Definitions

9. For the purpose of this document, the following definitions will apply to the terms stated below:

- Intraday Liquidity: funds which can be accessed during the business day, usually to enable institutions to make payments in real time.[122]

- Business Day: the opening hours of the LVPS or of correspondent banking services during which an institution can receive and make payments in a local jurisdiction.

- Intraday Liquidity Risk: the risk that an institution fails to manage its intraday liquidity effectively, which could leave it unable to meet a payment obligation at the time expected, thereby affecting its own liquidity position and that of other parties.

- Time-specific obligations: obligations which must be settled at a specific time within the day or have an expected intraday settlement deadline.

4.2.2 Intraday Liquidity sources and usage

10. The following sets out the main constituent elements of an institution's intraday liquidity sources and usage.[123]

(The list should not be taken as exhaustive.)

a) Sources of liquidity

- Own sources

  - reserve balances at the central bank

  - collateral pledged with the central bank or with ancillary systems[124] that can be freely converted into intraday liquidity

  - unencumbered assets on an institution's balance sheet that can be freely converted into intraday liquidity

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122 Committee on Payment and Settlement Systems, *A glossary of terms used in payments and settlements systems*, March 2003. http://www.bis.org/cpmi/publ/d00b.pdf

123 Not all elements will be relevant to all reporting institutions as intraday liquidity profiles will differ between institutions (e.g. whether they access payment and settlement systems directly or indirectly or whether they provide correspondent banking services and intraday credit facilities to other institutions, etc.).

124 Ancillary systems include other payment systems such as retail payment systems, CLS, securities settlement systems and central counterparties.

- secured and unsecured, committed and uncommitted credit lines[125] available intraday
- balances with other institutions that can be used for intraday settlement

- Other sources
  - payments received from other LVPS participants
  - payments received from ancillary systems
  - payments received through correspondent banking services

b) Usage

- payments made to other LVPS participants
- payments made to ancillary systems[126]
- payments made through correspondent banking services
- secured and unsecured, committed and uncommitted credit lines offered intraday
- contingent payments relating to a payment and settlement system's failure (e.g. as an emergency liquidity provider)

11. In correspondent banking, some customer payments are made across accounts held by the same correspondent institution. These payments do not give rise to an intraday liquidity source or usage for the correspondent institution as they do not link to the payment and settlement systems. However, these "internalised payments" do have intraday liquidity implications for both the sending and receiving customer institutions and should be incorporated in their reporting of the monitoring tools.

4.3 Intraday liquidity monitoring tools

12. A number of factors influence an institution's usage of intraday liquidity in payment and settlement systems and its vulnerability to intraday liquidity shocks. As such, no single monitoring tool can provide supervisors with sufficient information to identify and monitor the intraday liquidity risk run by an

[125] Although uncommitted credit lines can be withdrawn in times of stress (see stress scenario (i) in Section IV), such lines are an available source of intraday liquidity in normal times.

[126] Some securities settlement systems offer self-collateralisation facilities in co-operation with the central bank. Through these, participants can automatically post incoming securities from the settlement process as collateral at the central bank to obtain liquidity to fund their securities settlement systems' obligations. In these cases, intraday liquidity usages are only those related to the haircut applied by the central bank.

institution. To achieve this, seven separate monitoring tools have been developed (see Table 1 below). As not all of the tools will be relevant to all reporting institutions, the tools have been classified in three groups to determine their applicability as follows:

Category A: Applicable to all reporting institutions
Category B: Applicable to reporting institutions that provide correspondent banking services
Category C: Applicable to reporting institutions which are direct participants

TABLE 1

Monitoring Tools

Tools applicable to all reporting institutions

A (i)	Daily maximum intraday liquidity usage
A (ii)	Available intraday liquidity at the start of the business day
A (iii)	Total payments
A (iv)	Time-specific obligations

Tools applicable to reporting institutions that provide correspondent banking services

B (i)	Value of payments made on behalf of correspondent banking customers
B (ii)	Intraday credit lines extended to customers

Tools applicable to reporting institutions which are direct participants

C (i)	Intraday throughput

4.3.1 Monitoring tools applicable to all reporting institutions

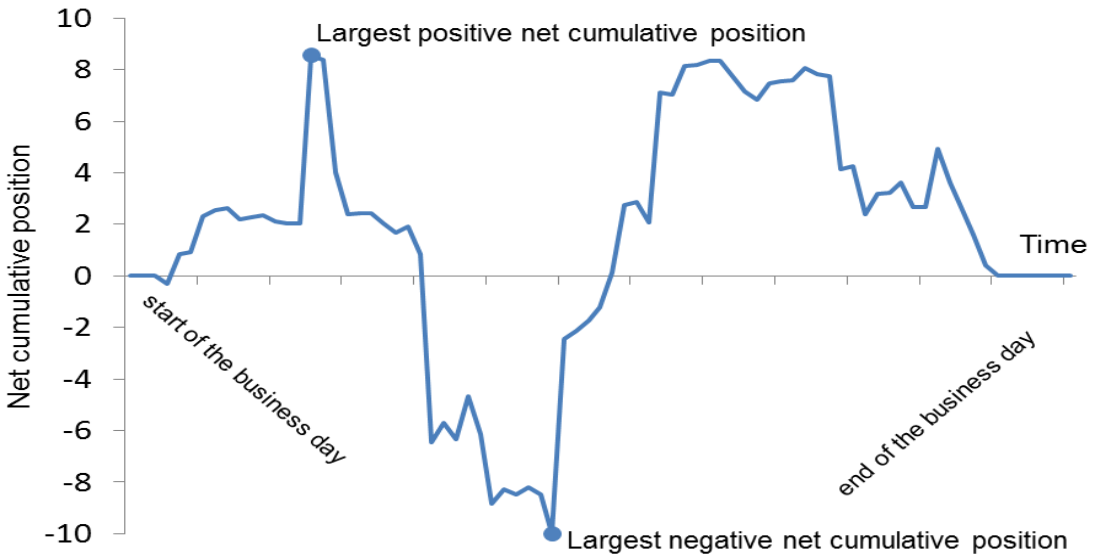
4.3.1.1 Daily maximum intraday liquidity usage

13. This tool will enable supervisors to monitor an institution's intraday liquidity usage in normal conditions. It will require institutions to monitor the net balance of all payments made and received during the day over their settlement account, either with the central bank (if a direct participant) or over their account held with a correspondent institution (or accounts, if more than one correspondent institution is used to settle payments). The largest net negative position during the business day on the account(s), (e.g. the largest net cumulative balance between payments made and received), will determine an institution's maximum daily intraday liquidity usage.

The net position should be determined by settlement time stamps (or the equivalent) using transaction-by-transaction data over the account(s). The largest net negative balance on the account(s) can be calculated after close of the business day and does not require real-time monitoring throughout the day.

14. For illustrative purposes only, the calculation of the tool is shown in figure 1. A positive net position signifies that the institution has received more payments than it has made during the day. Conversely, a negative net position signifies that the institution has made more payments than it has received.[127] For direct participants, the net position represents the change in its opening balance with the central bank. For institutions that use one or more correspondent institutions, the net position represents the change in the opening balance on the account(s) with its correspondent institution(s).

Daily maximum intraday liquidity usage



15. Assuming that an institution runs a negative net position at some point intraday, it will need access to intraday liquidity to fund this balance. The minimum amount of intraday liquidity that an institution would need to have available on any given day would be equivalent to its largest negative net position. (In the illustration above, the intraday liquidity usage would be 10 units.)

16. Conversely, when an institution runs a positive net cumulative position at some point intraday, it has surplus liquidity available to meet its intraday liquidity obligations. This position may arise because the institution is relying on payments received from other LVPS participants to fund its outgoing payments. (In the illustration above, the largest positive net cumulative position would be 8.6 units.)

17. Institutions should report their three largest daily negative net cumulative positions on their settlement or correspondent account(s) in the reporting period and the daily average of the negative net cumulative position over the period.

[127] For the calculation of the net cumulative position, “payments received” do not include funds obtained through central bank intraday liquidity facilities.

The largest positive net cumulative positions, and the daily average of the positive net cumulative positions, should also be reported. As the reporting data accumulates, the AMF will gain an indication of the daily intraday liquidity usage of an institution in normal conditions.

4.3.1.2 Available intraday liquidity at the start of the business day

18. This tool will enable the AMF to monitor the amount of intraday liquidity an institution has available at the start of each day to meet its intraday liquidity requirements in normal conditions. Institutions should report both the three smallest sums by value of intraday liquidity available at the start of each business day in the reporting period, and the average amount of available intraday liquidity at the start of each business day in the reporting period. The report should also break down the constituent elements of the liquidity sources available to the institution.

19. Drawing on the liquidity sources set out in Section II b) above, institutions should discuss and agree with the AMF the sources of liquidity which they should include in the calculation of this tool. Where institutions manage collateral on a cross-currency and/or cross-system basis, liquidity sources not denominated in the currency of the intraday liquidity usage and/or which are located in a different jurisdiction, may be included in the calculation if the institution can demonstrate to the satisfaction of the AMF that the collateral can be transferred intraday freely to the system where it is needed.

20. As the reporting data accumulates, the AMF will gain an indication of the amount of intraday liquidity available to an institution to meet its payment and settlement obligations in normal conditions.

4.3.1.3 Total payments

21. This tool will enable the AMF to monitor the overall scale of an institution's payment activity. For each business day in a reporting period, institutions should calculate the total of their gross payments sent and received in the LVPS and/or, where appropriate, across any account(s) held with a correspondent institution(s). Institutions should report the three largest daily values for gross payments sent and received in the reporting period and the average daily figure of gross payments made and received in the reporting period.

4.3.1.4 Time-specific obligations

22. This tool will enable the AMF to gain a better understanding of an institution's time specific obligations.[128] Failure to settle such obligations on time could result

[128] These obligations include, for example, those for which there is a time-specific intraday deadline, those required to settle positions in other payment and settlement systems, those related to market activities (such as the delivery or return of money market transactions or margin payments), and other payments critical to an institution's business or reputation (see footnote 10 of the Basel Commitee Sound Principles). Examples include the settlement of obligations in ancillary systems, CLS pay-ins or the return of overnight loans. Payments made to meet the throughput guidelines are not considered time-specific obligations for the purpose of this tool.

in financial penalty, reputational damage to the institution or loss of future business.

23. Institutions should calculate the total value of time-specific obligations that they settle each day and report the three largest daily total values and the average daily total value in the reporting period to give the AMF an indication of the scale of these obligations.

4.3.2 Monitoring tools applicable to reporting institutions that provide correspondent banking services

4.3.2.1 Value of payments made on behalf of correspondent banking customers[129]

24. This tool will enable the AMF to gain a better understanding of the proportion of a correspondent institution's payment flows that arise from its provision of correspondent banking services. These flows may have a significant impact on the correspondent institution's own intraday liquidity management.[130]

25. Correspondent institutions should calculate the total value of payments they make on behalf of all customers of their correspondent banking services each day and report the three largest daily total values and the daily average total value of these payments in the reporting period.

4.3.2.2 Intraday credit limits to customers[131]

26. This tool will enable the AMF to monitor the scale of a correspondent institution's provision of intraday credit to its customers. Correspondent institutions should report the three largest intraday credit lines extended to their customers in the reporting period, including whether these lines are secured or committed and the use of those lines at peak usage.[132]

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129 The term "customers" includes all entities for which the correspondent institution provides correspondent banking services.

130 Paragraph 79 of the Basel Committee Sound Principles states that: "The level of an institution's gross cash inflows and outflows may be uncertain, in part because those flows may reflect the activities of its customers, especially where the institution provides correspondent or custodian services."

131 Not all elements will be relevant to all reporting institutions as intraday liquidity profiles will differ between institutions (e.g. whether they access payment and settlement systems directly or indirectly or whether they provide correspondent banking services and intraday credit facilities to other institutions, etc.).

132 The figure to be reported for the three largest intraday credit lines extended to customers should include uncommitted and unsecured lines. This disclosure does not change the legal nature of these credit lines.

4.3.3 Monitoring tools applicable to reporting institutions that are direct participants

4.3.3.1 Intraday throughout

27. This tool will enable the AMF to monitor the throughput of a direct participant's daily payments activity across its settlement account. Direct participants should report the daily average in the reporting period of the percentage of their outgoing payments (relative to total payments) that settle by specific times during the day, by value within each hour of the business day.[133] Over time, this will enable the AMF to identify any changes in an institution's payment and settlement behaviour.

4.4 Intraday liquidity stress scenarios

28. The monitoring tools in Section III will provide the AMF with information on an institution's intraday liquidity profile in normal conditions. However, the availability and usage of intraday liquidity can change markedly in times of stress. In the course of their discussions on broader liquidity risk management, institutions should and the AMF will consider the impact of an institution's intraday liquidity requirements in stress conditions. As guidance, four possible (but non-exhaustive) stress scenarios have been identified and are described below.[134] Institutions should determine with the AMF which of the scenarios are relevant to their particular circumstances and business model.

29. Institutions need not report the impact of the stress scenarios on the monitoring tools to the AMF on a regular basis. They should use the scenarios to assess how their intraday liquidity profile in normal conditions would change in conditions of stress and discuss with the AMF how any adverse impact would be addressed either through contingency planning arrangements and/or their wider intraday liquidity risk management framework.

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[133] It should be noted that some jurisdictions already have throughput rules or guidelines in place. For example, in the case of Canada's LVTS, the Canadian Payments Association (CPA) recommends that LVTS participants abide by the following daily throughput guidelines:

- 25% of daily transaction value and 40% of daily transaction volume should be completed by 10:00 hours Eastern time (ET);
- 60% of both aggregate volume and value should be completed by 13:00 hours ET, and;
- 80%of both aggregate volume and value should be completed by 16:30 hours ET.

However, although these throughput guidelines are not mandatory at this time, the CPA reserves the right to make them mandatory if participants do not appear to be abiding by them.

[134] Institutions are encouraged to consider reverse stress scenarios and other stress testing scenarios as appropriate (for example, the impact of natural disasters, currency crisis, etc.). In addition, institutions should use these stress testing scenarios to inform their intraday liquidity risk tolerance and contingency funding plans.

4.4.1 Stress Scenarios

4.4.1.1 Own financial stress: an institution suffers or is perceived to be suffering from a stress event

30. For a direct participant, own financial and/or operational stress may result in counterparties deferring payments and/or withdrawing intraday credit lines. This, in turn, may result in the institution having to fund more of its payments from its own intraday liquidity sources to avoid having to defer its own payments.

31. For institutions that use correspondent banking services, an own financial stress may result in intraday credit lines being withdrawn by the correspondent institution(s), and/or its own counterparties deferring payments. This may require the institution having either to prefund its payments and/or to collateralise its intraday credit line(s).

4.4.1.2 Counterparty stress: a major counterparty suffers an intraday stress event which prevents it from making payments

32. A counterparty stress may result in direct participants and institutions that use correspondent banking services being unable to rely on incoming payments from the stressed counterparty, reducing the availability of intraday liquidity that can be sourced from the receipt of the counterparty's payments.

4.4.1.3 A customer institution's stress: a customer institution of a correspondent institution suffers a stress event

33. A customer institution's stress may result in other institutions deferring payments to the customer, creating a further loss of intraday liquidity at its correspondent institution.

4.4.1.4 Market-wide credit or liquidity stress

34. A market-wide credit or liquidity stress may have adverse implications for the value of liquid assets that an institution holds to meet its intraday liquidity usage. A widespread fall in the market value and/or credit rating of an institution's unencumbered liquid assets may constrain its ability to raise intraday liquidity from the central bank. In a worst case scenario, a material credit downgrade of the assets may result in the assets no longer meeting the eligibility criteria for the central bank's intraday liquidity facilities.

35. For an institution that uses correspondent banking services, a widespread fall in the market value and/or credit rating of its unencumbered liquid assets may constrain its ability to raise intraday liquidity from its correspondent institution(s).

36. Institutions which manage intraday liquidity on a cross-currency basis should consider the intraday liquidity implications of a closure of, or operational

difficulties in, currency swap markets and stresses occurring in multiple systems simultaneously.

4.4.2 Application of the stress scenarios

37. For the own financial stress and counterparty stress, all reporting institutions should consider the likely impact that these stress scenarios would have on their daily maximum intraday liquidity usage, available intraday liquidity at the start of the business day, total payments and time-specific obligations.

38. For the customer institution's stress scenario, institutions that provide correspondent banking services should consider the likely impact that this stress scenario would have on the value of payments made on behalf of its customers and intraday credit lines extended to its customers.

39. For the market-wide stress, all reporting institutions should consider the likely impact that the stress would have on their sources of available intraday liquidity at the start of the business day.

40. While each of the monitoring tools has value in itself, combining the information provided by the tools will give the AMF a comprehensive view of an institution's resilience to intraday liquidity shocks. Examples on how the tools could be used in different combinations by the AMF to assess an institution's resilience to intraday liquidity risk are presented in Annex I.

4.5 Scope

41. Institutions generally manage their intraday liquidity risk on a system-by-system basis in a single currency, but it is recognized that practices differ across institutions and jurisdictions, depending on the institutional set up of an institution and the specifics of the systems in which it operates. The following considerations aim to help institutions and the AMF determine the most appropriate way to apply the tools. Should institutions need further clarification, they should discuss the scope of application with the AMF.

4.5.1 Systems

42. Institutions which are direct participants to an LVPS can manage their intraday liquidity in very different ways. Some institutions manage their payment and settlement activity on a system-by-system basis. Others make use of direct intraday liquidity "bridges"[135] between LVPS, which allow excess liquidity to be transferred from one system to another without restriction. Other formal arrangements exist, which allow funds to be transferred from one system to another (such as agreements for foreign currency liquidity to be used as collateral for domestic systems).

[135] A direct intraday liquidity bridge is a technical functionality built into two or more LVPS that allows institutions to make transfers directly from one system to the other intraday.

43. To allow for these different approaches, direct participants should apply a "bottom-up" approach to determine the appropriate basis for reporting the monitoring tools. The following sets out the principles which such institutions should follow:

- As a baseline, individual institutions should report on each LVPS in which they participate on a system-by-system-basis;

- If there is a direct real-time technical liquidity bridge between two or more LVPS, the intraday liquidity in those systems may be considered fungible. At least one of the linked LVPS may therefore be considered an ancillary system for the purpose of the tools;

- If an institution can demonstrate to the satisfaction of the AMF that it regularly monitors positions and uses other formal arrangements to transfer liquidity intraday between LVPS which do not have a direct technical liquidity bridge, those LVPS may also be considered as ancillary systems for reporting purposes.

44. Ancillary systems (e.g. retail payment systems, CLS, some securities settlement systems and central counterparties), place demands on an institution's intraday liquidity when these systems settle the institution's obligations in an LVPS. Consequently, separate reporting requirements will not be necessary for such ancillary systems.

45. Institutions that use correspondent banking services should base their reports on the payment and settlement activity over their account(s) with their correspondent institution(s). Where more than one correspondent institution is used, the institution should report per correspondent institution. For institutions which access an LVPS indirectly through more than one correspondent institution, the reporting may be aggregated, provided that the reporting institution can demonstrate to the satisfaction of the AMF that it is able to move liquidity between its correspondent institutions.

46. Institutions which operate as direct participants of an LVPS but which also make use of correspondent institutions should discuss whether they can aggregate these for reporting purposes with the AMF. Aggregation may be appropriate if the payments made directly through the LVPS and those made through the correspondent institution(s) are in the same jurisdiction and same currency.

4.5.2 Currency

47. Institutions that manage their intraday liquidity on a currency-by-currency basis should report on an individual currency basis.

48. If an institution can prove to the satisfaction of the AMF that it manages liquidity on a cross-currency basis and has the ability to transfer funds intraday with minimal delay – including in periods of acute stress – then the intraday liquidity positions across currencies may be aggregated for reporting purposes. However, institutions should also report at an individual currency level so that

the AMF can monitor the extent to which firms are reliant on foreign exchange swap markets.

49. When the level of activity of an institution's payment and settlement activity in any one particular currency is considered with the agreement of the AMF[136] a reporting exemption could apply and separate returns need not be submitted.

4.5.3 Organisational structure

50. The appropriate organisational level for each institution's reporting of its intraday liquidity data should be determined by the AMF, but it is expected that the monitoring tools will typically be applied at a significant individual legal entity level. The decision on the appropriate entity should consider any potential impediments to moving intraday liquidity between entities within a group, including the ability of the AMF to ring-fence liquid assets, timing differences and any logistical constraints on the movement of collateral.

51. Where there are no impediments or constraints to transferring intraday liquidity between two (or more) legal entities intraday, and institutions can demonstrate this to the satisfaction of the AMF, the intraday liquidity requirements of the entities may be aggregated for reporting purposes.

4.5.4 Responsibility of home and host supervisors

52. **For cross-border deposit-taking groups**, where an institution operates in LVPS and/or with a correspondent institution(s) outside the jurisdiction where it is domiciled, both home and host supervisors will have an interest in ensuring that the institution has sufficient intraday liquidity to meet its obligations in the local LVPS and/or with its correspondent institution(s).[137] The allocation of responsibility between home and host supervisor will ultimately depend upon whether the bank operating in the non-domestic jurisdiction does so via a branch or a subsidiary.

For a branch operation: the home (consolidated) supervisor should have responsibility for monitoring through the collection and examination of data that its deposit-taking groups can meet their payment and settlement responsibilities in all countries and all currencies in which they operate. The home supervisor should therefore have the option to receive a full set of intraday liquidity information for its deposit-taking groups, covering both domestic and non-domestic payment and settlement obligations.

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136 As an indicative threshold, the AMF may consider that a currency is considered "significant" if the aggregate liabilities denominated in that currency amount to 5 % or more of the institution's total liabilities. See paragraph 211 of the BCBS *Basel III: The Liquidity Coverage Ratio and liquidity risk monitoring tools*, January 2013.

137 Paragraph 145 of the Basel Committee Sound Principles states that "the host supervisor needs to understand how the liquidity profile of the group contributes to risks to the entity in its jurisdiction, while the home supervisor requires information on material risks a foreign branch or subsidiary poses to the deposit-taking group as a whole."

The host supervisor will have the option to require foreign branches in their jurisdiction to report intraday liquidity tools to them, subject to materiality.

For a subsidiary active in a non-domestic LVPS and/or correspondent institution(s), the host supervisor should have primary responsible for receiving the relevant set of intraday liquidity data for that subsidiary.

The supervisor of the parent institution will have an interest in ensuring that a non-domestic subsidiary has sufficient intraday liquidity to participate in all payment and settlement obligations. The AMF would therefore have the option to require non-domestic subsidiaries to report intraday liquidity data to them as appropriate.

4.5.5 Implementation date and reporting frequency

53. Paragraph deleted – See the AMF note at the beginning of the present chapter.

54. Sample reporting templates can be found in Annex 2-II. As noted above, the tools apply to internationally active institutions. Although the fact that applies to active institutions, the AMF require institutions to comply these reporting requirements. Institutions should also agree with the AMF the scope of application and reporting arrangements between home and host authorities.

55. If customer institutions are unable to meet this implementation deadline because of data availability constraints with their correspondent institution(s), consideration may be given by the AMF to phasing-in their implementation to a later date (preferably no later than January 1, 2017).

Chapter 5. Net Cumulative Cash Flow

Note

Paragraphs of this chapter are provided by the AMF to replace Basel Committee's dispositions related to contractual maturity mismatch. These paragraphs have been harmonized at the Canadian level.

5.1 Objective

1. The Net Cumulative Cash Flow (NCCF) metric is used by the AMF (in conjunction with the other metrics specified in this Guideline) to supervise and assess liquidity at an individual financial institution. The NCCF measures an institution's net cumulative cash flows, on a contractual basis, after the application of assumptions around the functioning of assets and modified liabilities (i.e. where rollover of certain liabilities is permitted). The NCCF measures an institution's net cumulative cash flow both on the basis of the consolidated balance sheet as well as by major individual balance sheets and components.

   The metric helps identify gaps between contractual inflows and outflows for various time bands over and up to a 12-month time horizon, which indicate potential cash flow shortfalls an institution may need to address.

2. The NCCF calculates a liquidity horizon in order to capture the risk posed by funding mismatches between assets and liabilities. By utilizing this type of cash flow analysis, institutions may be able to better mitigate the risk of losing market confidence and maintain the ability to meet short-term liabilities in a liquidity crisis. This aims to provide institutions with the time to find alternative sources of funding or to liquidate assets as needed.

3. The NCCF necessitates that institutions consider structural liquidity risk, contingent liquidity risk and market liquidity risk. Through the NCCF analysis, institutions will consider their ability to withstand asset devaluations, losses of market confidence, and accelerated reductions in funding capacity during a period of stress. The NCCF analysis offers further perspective into the maturity profile of an institution's balance sheet, and provides the AMF with additional assurance of the institution's liquidity adequacy as a complement to internationally prescribed metrics.

5.2 Definition

4. The NCCF is a liquidity horizon metric that measures an institution's net cumulative cash flow. Cash and security flows associated with assets and liabilities that have a contractual maturity should be considered based on their residual contractual maturity. For liabilities, rollover of existing liabilities is limited to retail and small business customer term deposits. Run-off rates (e.g. outflows) associated with liabilities that have no specific maturity (non-defined or

open maturity), such as demand deposits and retail and small business customer term deposits, are applied over two time intervals – weekly for the first[138] month and monthly from month 2 to month 12 (see Section 5.6).

5. The liquidity scenario assumed in the NCCF encompasses a combination of idiosyncratic and systemic stresses which measure the impacts of assumptions over a one year liquidity horizon. Stress assumptions result in:

   a) cash inflows from eligible unencumbered liquid assets, other securities and assets

   b) partial run-off of retail and small business customer deposits

   c) partial run-off of wholesale funding

6. The time bands reported under the NCCF include weekly buckets for the first four weeks, monthly buckets for month two to month twelve, and a greater than one year bucket.

5.3 Supervisory tools

7. The NCCF compares cumulative cash inflows from maturing assets and unencumbered liquid assets against cumulative cash outflows as given by the following equation:

$$\text{NCCF (Weeks)} = \sum \text{(Inflows – Outflows) Cumulative}$$

8. AMF may, as necessary, require individual institutions to meet a supervisory-communicated, institution-specific NCCF level on a consolidated basis. In such instances, the supervisory-communicated, institution-specific NCCF level will be set by AMF after considering the trend in financial market funding liquidity indicators and institution-specific liquidity metrics and business risks. In addition, when determining the NCCF level for individual institutions, the Superintendent will consider such factors as operating and management experience, strength of parent, earnings, diversification of assets, type of assets, inherent risk of a business model and appetite for risk.

[138] Balances related to days 29, 30 and 31 of a given month should be reported in the week 4 bucket and applied the weekly run-off rate assigned to week 4 balances. Balances related to the remaining days of week 5 should be reported in the month 2 bucket and applied the monthly run-off rate assigned to month 2 balances.

5.4 Scope

9. The NCCF supervisory tool will be assessed in three parts by the AMF, on a:

   a) consolidated basis
   b) Canadian currency basis
   c) major foreign currency basis (major currencies, e.g. USD, EUR, GBP)

   During periods of idiosyncratic stress to specific regions or to individual institutions, the AMF may, as necessary, require a supervisory-communicated, institution-specific NCCF level to be met on a Canadian currency basis and/or a foreign currency balance sheet basis, including USD, EUR, GBP and any other currency.

10. Not applicable.

5.5 Cash inflows

11. Cash inflow treatments differ based on whether or not the asset meets the criteria for unencumbered liquid assets outlined below.

12. Eligible unencumbered liquid assets are treated as cash inflows in the first time bucket (i.e. week one, cumulative interest is excluded). Beyond the first week, unencumbered liquid assets also include cash inflows from maturing reverse repurchase transactions of eligible liquid assets that are maturing in greater than seven days, which should be assigned to the appropriate time bucket.

13. To qualify for the stock of unencumbered liquid assets under the NCCF, the assets should be eligible collateral at central banks under normal operating conditions (e.g. Bank of Canada Standing Liquidity Facility)[139] and should be unencumbered. “Unencumbered” means free of legal, regulatory, contractual or other restrictions on the ability of the institution 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 assets should also be accessible by the function charged with managing the liquidity of the institution (e.g. the treasurer) as outlined in Chapter 2, paragraph 33. Eligible foreign currency liquid assets may be permitted to be included at the AMF’s discretion.

14. Institutions should only include liquid assets that it has the operational capability to monetize, meaning it has procedures and appropriate systems in place, including providing the function identified in Chapter 2, paragraph 33 with access to all necessary information to execute monetisation of any asset at any time.

[139] Bank of Canada, *Assets Eligible as Collateral under the Bank of Canada’s Standing Liquidity Facility*. http://www.bankofcanada.ca/wp-content/uploads/2014/03/SLF-Policy.pdf

15. Only eligible U.S. and Canadian liquid assets should be considered fungible (i.e. mutually interchangeable) for NCCF liquidity measurement purposes. Subject to the AMF's approval, other liquid assets may be eligible for inclusion in an institution's respective foreign currency balance sheets and the consolidated balance sheet.

16. In order to qualify as liquid assets under the NCCF, liquid assets held by qualifying subsidiaries, or domiciled outside Canada, should be freely transferable for regulatory purposes to the consolidated entity, meaning that there should not be regulatory, legal, tax, accounting or other impediments to their transfer. Assets held in legal entities without market access should only be included to the extent that they can be freely transferred to other entities that could monetize the assets.

17. Assets received in reverse repo and securities financing transactions that are held at the institution, have not been rehypothecated, and are legally and contractually available for the institution's use can be considered as part of the pool of liquid assets and thus accorded immediate liquidity value (i.e. week one), expect as noted in other paragraphs.

18. Institutions may receive liquidity value for collateral swaps provided they can clearly demonstrate that, at a minimum, the transactions are for a specified contract period, the securities used for the underlying collateral being swapped are outlined in the transaction details, mark-to-market procedures are understood and documented, and there is not substitution of collateral over the life of the contract, unless it is a like-for-like substitution of collateral. In addition, institutions must have adequate and ongoing market risk management control and oversight around this activity, and must recognize liquidity or cash flow implications at the termination of the swap.

19. For the Canadian balance sheet, liquid assets are limited only to those eligible as collateral under the Standing Liquidity Facility at the Bank of Canada. Note that the Bank of Canada applies conditions to the use of these assets and that the asset list is subject to change. As such, institutions should use the most recent version of the aforementioned document when calculating their stock of liquid assets for NCCF purposes.

20. For all foreign currency balance sheets, the stock of liquid assets must, at a minimum, be eligible collateral under normal operating conditions at the appropriate central bank, be unencumbered per paragraph 13 of this chapter, and must be approved by the AMF. The AMF reserves the right to restrict or alter this list at any time, in consideration of stressed markets or other circumstances.

21. Cash inflow treatment for balance sheet assets that do not meet the aforementioned criteria for eligible unencumbered liquid assets is based on the asset's residual contractual maturity. When considering its available cash inflows, the institution should only include contractual inflows (including interest and amortization payments) from outstanding exposures that are fully

performing and for which the institution has no reason to expect a default. Contingent inflows are not to be included in cash inflows.

22. All cash inflows from demand and term deposits held with other institutions are assumed to occur at the earliest contractual maturity date. In the case of demand deposits, this would mean the first week.

23. Cash inflows from government securities, mortgage-backed securities, asset-backed securities, corporate commercial paper, and corporate bonds, which are not considered eligible unencumbered liquid assets, should be reported at contractual maturity or the earliest option date (e.g. callable bonds). Cash inflows are limited to the face value of the security.

24. Cash inflows from Acceptances (bankers' acceptances) reported as an asset (customers' liability under acceptances) on the balance sheet should occur at the latest contractual maturity date of the underlying facility.

25. Non-financial common equity shares that meet the requirements for Level 2B asset treatment in the LCR (e.g. meet the criteria outlined in Chapter 2, paragraph 54c) and the operational requirements outlined in Chapter 2, section 2.2.1.2) will be given cash inflow treatment in NCCF, after application of a 50% haircut, in week 4.

26. Financial institution common equity shares will be given cash inflow value according to the following schedule – 12.5% in month, 25% in month 3, and 12.5% in month 4, provided the operational requirements outlined in Chapter 2, section 2.2.1.2 are met.

27. Precious metals and other commodities receive no cash inflow value because their liquidity characteristics indicate a low level of confidence that cash inflows will occur within one year.

28. Inflows from loans that have no specific maturity (i.e. have non-defined or open maturity) should not be included. An exception to this would be minimum payments of principal, fee or interest associated with an open maturity loan, which are contractually due within a specific period. These minimum payment amounts are assumed to occur at the latest possible time band within that period.

29. Cash inflows from swapped intra-bank loans should occur at contractual maturity of the loan. These transactions occur when funds are transferred from one balance sheet to another. The originating balance sheet generates a swapped intra-bank loan by swapping funds from one currency to another (e.g., an area within a FI swaps U.S. dollar deposits to Canadian dollars and lends the funds to another area within the institution).

30. Cash inflows from reverse repurchase agreements which do not meet the conditions outlined in paragraphs 12 to 20 are assumed to occur at contractual maturity.

31. Cash inflows from securities borrowed are assumed to occur at contractual maturity for the principal amount borrowed. Interest will not be recognized as a cash inflow.

32. All derivative-related cash inflows should be included at the expected contractual payment dates in accordance with their existing valuation methodologies. Cash flows may be calculated on a net basis (i.e. inflows can offset outflows) by counterparty, only where a valid master netting agreement exists. The amounts of derivatives cash inflows and outflows should be calculated in accordance with other provisions of the methodology described in paragraph 42. In accordance with the principle that institutions should not double count liquidity inflows or outflows, where derivatives are collateralised by eligible liquid assets, cash inflows should be calculated net of any corresponding cash or contractual collateral outflows that would result, all other things being equal, from contractual obligations for cash or collateral to be posted by the institution, given these contractual obligations would reduce the pool of eligible liquid assets.

33. Balances related to assets not mentioned above are to be reported in the NCCF, but no cash inflow value will be attributed to them.

5.6 Cash Outflows

34. The cash outflow treatment for existing liabilities differs depending on whether the liability has a contractual maturity or whether the liability has no specific maturity (non-defined or open maturity). Both on-balance sheet and certain off balance sheet items are considered as part of cash outflows under the NCCF. Balances should be run-off on a declining balance basis.

35. Consistent with the underlying intent of the metric, no rollover of existing liabilities is generally assumed to take place, with the exception of retail and small business customer term deposits. Run-off rates for retail and small business customer term deposits will be the same as equivalent demand deposits. However, these term deposits will be assumed to renew at the same tenor as the original deposit, less the applicable run-off rate.

36. For cashable products in which the customer has an option for early redemption, the balance should be treated as a demand deposit at the first customer option date and allocated to the appropriate demand deposit and run-off rate category. If product design includes penalties that sufficiently discourage early redemption, the AMF may consider exceptions on a bilateral basis.

37. The general treatment described in paragraph 35 (i.e. no rollover of liabilities) applies to:

- repurchase agreements
- term deposits other than retail and small business customer term deposits, regardless of the counterparty type

- other wholesale liabilities including commercial paper, certificates of deposit, deposit notes, and bonds

- outflows from FI-sponsored ABCP, SIVs, and securitizations[140]

38. Cash outflows from swapped intra-bank deposits should occur in full at contractual maturity. These transactions occur when funds are transferred from one balance sheet to another. The originating balance sheet generates a swapped intra-bank deposit by swapping funds from one currency to another (e.g., an area within a FI swaps U.S. dollar deposits to Canadian dollars and lends the funds to another area within the institution).

39. Securities sold short, securities lent and funding guarantees to subsidiaries and branches should all be assumed to have immediate cash outflows (i.e. first maturity bucket) of principal.

40. Securities sold short, securities lent and funding guarantees to subsidiaries and branches should all be assumed to have immediate cash outflows (i.e. first maturity bucket) of principal.

41. 75% of the outstanding amount of bank-sponsored Acceptances (bankers' acceptances) reported as a liability on the balance sheet should be recorded as an outflow on a declining balance basis occurring on the earliest maturity date of each acceptance (i.e. the remaining 25% is considered to be rolled over). All other Acceptances should roll off at 100%.

42. All derivative-related cash outflows should be included at the expected contractual payment dates in accordance with their existing valuation methodologies. Cash flows may be calculated on a net basis (i.e. inflows can offset outflows) by counterparty, only where a valid master netting agreement exists. Options should be assumed to be exercised when they are 'in the money' to the option buyer. In accordance with the principle that institutions should not double count liquidity inflows or outflows, where derivative payments are collateralized by eligible liquid assets, cash outflows should be calculated net of any corresponding cash or collateral inflows that would result, all other things being equal, from contractual obligations for cash or collateral to be provided to the institution, if the institution is legally entitled and operationally capable to re-use the collateral in new cash raising transactions once the collateral is received.

43. Run-off rates (i.e. outflows) associated with liabilities that have no specific maturity (non-defined or open maturity), such as demand/notice deposits, and retail and small business customer term deposits, are applied over two time intervals – weekly for the first month and monthly from month 2 to month 12.

44. Retail deposits are defined as deposits placed with an institution by a natural person and are divided into "stable" and "less stable" according to paragraphs 75

[140] Where financing is arranged through structured investment vehicles, financial institutions should consider the inability to refinance maturing debt during liquidity crises.

to 84 of Chapter 2. Institutions should refer to these paragraphs for definitions related to the concepts described for retail deposits below.

45. Insured retail deposits that are in transactional accounts or where the depositors have other established relationships with the institution that make deposit withdrawal highly unlikely per Chapter 2, paragraph 75 are generally assigned a weekly run-off rate of 1.25% over each of the first four weeks and a monthly run-off rate of 1% over each of the subsequent 11 months. However, such deposits may be eligible for a weekly run-off rate of 0.75% over each of the first four weeks and a monthly run-off rate of 1% over each of the subsequent 11 months if the criteria outlined in Chapter 2, paragraph 78 are met.

46. Third-party retail deposits that are sourced from an unaffiliated entity (i.e. an entity that is not branded with the institution or branded as a subsidiary of the institution) are assigned a weekly run-off rate of 2.5% over each of the first 4 weeks and a monthly run-off rate of 3.5% over each of the subsequent 11 months.

47. Insured retail deposits that are not in transactional accounts or where the depositors do not have other established relationships with the institution that make deposit withdrawal highly unlikely per Chapter 2, paragraph 75 are assigned a weekly run-off rate of 2.5% over each of the first four weeks and a monthly run-off rate of 5% over each of the subsequent 11 months.

48. Uninsured retail deposits are assigned a weekly run-off rate of 2.5% over each of the first 4 weeks and a monthly run-off rate of 5% over each of the subsequent 11 months.

49. Unsecured wholesale funding is defined as those liabilities and general obligations that are raised from non-natural persons (i.e. legal entities, including sole proprietorships and partnerships) and are not collateralized by legal rights to specifically designated assets owned by the borrowing institution in the case of bankruptcy, insolvency, liquidation or resolution.

50. Unsecured wholesale funding provided by small business customers (as defined in Chapter 2, paragraphs 90 and 91) is treated the same way as retail, effectively distinguishing between a "stable" portion of funding provided by small business customers and different buckets of “less stable” funding. The same bucket definitions and associated run-off factors apply as for retail deposits.

51. All non-small business customer unsecured term wholesale funding is assumed to run-off 100% at contractual maturity.

52. For unsecured demand wholesale funding provided by non-small business customers, where the institution has operational deposits generated by clearing, custody and cash management activities that meet the criteria outlined in Chapter 2, paragraphs 93 to 103, these deposits are generally assigned a weekly run-off factor of 2.5% for each of the first four weeks and a monthly run-

off rate of 5% over each of the subsequent eleven months, regardless of the counterparty type.

53. Exceptions to the treatment prescribed in paragraph 52, relate to the portion of operational deposits generated by clearing, custody and cash management activities that is fully covered by deposit insurance, which can receive one of the following treatments:

- A weekly run-off rate of 0.75% for each of the first four weeks and a monthly run-off rate of 3% over each of the subsequent eleven months if the jurisdiction where the deposit is located permits use of the 3% run-off factor under the LCR for certain insured retail deposits per Chapter 2, paragraph 78;
- A weekly run-off rate of 1.25% for each of the first four weeks and a monthly run-off rate of 5% over each of the subsequent eleven months if the jurisdiction where the deposit is located does not permit use of the 3% run-off factor under the LCR for certain insured retail deposits.

54. All demand deposits and other extensions of unsecured funding from non-financial corporate customers (that are not categorized as small business customers) and both domestic and foreign sovereign, central bank, multilateral development bank, and PSE customers that are not specifically held for operational purposes per paragraphs 51 and 53 should be assigned a weekly run-off factor of 3% for each of the first 4 weeks and a monthly run-off rate of 10% over each of the subsequent 11 months.

55. An exception to the treatment prescribed for non-operational deposits in paragraph 54 relates to unsecured demand wholesale funding provided by non-financial corporate customers, sovereigns, central banks, multilateral development banks, and PSEs without operational relationships if the entire amount of the deposit is fully covered by an effective deposit insurance scheme (as defined in Chapter 2, paragraph 56) or by a public guarantee that provides equivalent protection. In such cases, the deposits should be assigned a weekly run-off factor of 3% for each of the first four weeks and a monthly run-off rate of 5% over each of the subsequent eleven months.

56. All demand deposits and other funding from other institutions (including banks, securities firms, insurance companies, etc.), fiduciaries,[141] beneficiaries,[142] conduits and special purpose vehicles, affiliated entities of the institution and other entities that are not specifically held for operational purposes (as defined above) and not included in the above categories are assumed to run-off evenly and in full over the first 4 weeks (¼, ¼, ¼, ¼).

57. The following table summarizes the treatment accorded to all unsecured funding, by counterparty type.

[141] See Footnote 72.

[142] See Footnote 73.

TABLE OF SUMMARIZING APPLICABLE RUN-OFF RATES			
Paragraph	**Deposit Type**	**Weekly run-off rate (first month)**	**Monthly run-off rate (months 2 to 12)**[143]
45, 50	Insured retail and small business – stable (demand and term deposits: • Where criteria outlined in Chapter 2, paragraph 78 are met • Where criteria outlined in Chapter 2, paragraph 78 are <u>not</u> met	 0.75% 1.25%	 1% 1%
46, 50	Retail and small business (demand and term deposits) sources from an unaffiliated third-party	2.5%	5%
47, 50	Insured retail and small business – less stable	2.5%	3.5%
48, 50	Uninsured retail and small business (demand and term deposits)	2.5%	5%
51	Unsecured wholesale term deposits – all non- small business customer	100% at maturity	
52, 53	Non-financial corporates, sovereigns, central banks, PSEs, MDBs, other FIs and other legal entities – operational deposits: • Where the deposit is <u>not</u> fully covered by deposit insurance • Where the deposit is fully covered by deposit insurance and: * Jurisdiction where the deposit is located permits a 3% run-off factor * Jurisdiction where the deposit is located does <u>not</u> permit a 3% run-off factor	 2.5% 0.75% 1.25%	 5% 3% 5%
54, 55	Non-financial corporates, sovereigns, central banks, PSEs and MDBs – non-operational deposits: * Where the deposit is not covered by an effective deposit insurance scheme or public guarantee * Where the deposit is covered by an effective deposit insurance scheme or public guarantee	 3% 3%	 10% 5%

[143] Note that there should be no run-off beyond 100 % of the original balance of any existing liability in the NCCF, and balances should be run-off on a declining balance basis.

TABLE OF SUMMARIZING APPLICABLE RUN-OFF RATES			
Paragraph	**Deposit Type**	**Weekly run-off rate (first month)**	**Monthly run-off rate (months 2 to 12)**[143]
56	All other counterparties (including other FIs and other legal entities) – non-operational deposits	100% over the first 4 weeks (25% per week)	n/a

58. Balances related to on-balance sheet liabilities not mentioned above are to be reported in the NCCF, but no cash outflow value is attributed to them.

59. Credit and liquidity facilities are defined as explicit contractual agreements or obligations to extend funds at a future date to retail or wholesale counterparties. For purposes of the NCCF, these facilities only include contractually irrevocable ("committed") or conditionally revocable agreements to extend funds in the future to third parties, and will be reported in the NCCF template but will not be included as outflows.

Chapter 6. Net Stable Funding Ratio

Notice

The following paragraphs were taken from the document titled *Basel III: The Net Stable Funding Ratio,* published by the BCBS in January 2014 as a consultative document. The paragraphs inserted in the present chapter were taken from the consultative document and do not include the modifications of the Basel Committee in October 2014, which modifications will be inserted in the next revision of the Guideline.

The AMF has included and adapted some of the paragraphs from the January 2014 document in this Guideline. To facilitate comparison with national and international standards, the Basel numbering was maintained.

6.1 Objectives

1. The NSFR will require banks to maintain a stable funding profile in relation to the composition of their assets and off-balance sheet activities. A sustainable funding structure is intended to reduce the likelihood that disruptions to a bank's regular sources of funding will erode its liquidity position in a way that would increase the risk of its failure and potentially lead to broader systemic stress. The NSFR limits overreliance on short-term wholesale funding, encourages better assessment of funding risk across all on- and off-balance sheet items, and promotes funding stability. This document sets out the proposed NSFR standard and timelines for its implementation.

2. to 5. Not selected paragraphs.

6. In 2010, the Basel Committee undertook to review the development of the NSFR over an observation period. The focus of this review was on addressing any unintended consequences for financial market functioning and the economy, and on improving the design with respect to several key issues, notably:

   (i) The impact on retail business activities;

   (ii) The treatment of short-term matched funding of assets and liabilities; and

   (iii) Analysis of sub-one year buckets for both assets and liabilities.

   Based on this review, the Basel Committee is proposing modifications to the NSFR, which the AMF has included in this Guideline.

7. In accordance with the schedule presented in the 2010 publication on the liquidity risk management framework, the Basel Commitee would still like to see the NSFR become a minimum standard by January 1, 2018.

6.2 Definition and minimum requirements

8. The NSFR is defined as the amount of available stable funding relative to the amount of required stable funding. This ratio should be equal to at least 100% on an on-going basis. "Available stable funding" is defined as the portion of capital and liabilities expected to be reliable over the time horizon considered by the NSFR, which extends to one year. The amount of such stable funding required of a specific institution is a function of the liquidity characteristics and residual maturities of the various assets held by that institution as well as those of its off-balance sheet (OBS) exposures.

   The formula for the calculation is as follows:

$$\frac{\text{Available amount of stable funding}}{\text{Required amount of stable funding}} \geq 100\%$$

9. The NSFR consists primarily of internationally agreed upon definitions and calibrations. Some elements, however, remain subject to national discretion to reflect jurisdiction-specific conditions. In these cases, national discretion should be explicit and clearly outlined in the regulations of each jurisdiction.

10. As a key component of the supervisory approach to funding risk, the NSFR must be supplemented by supervisory assessment work from the AMF, which may require a financial institution to adopt more stringent standards to reflect its funding risk profile and the AMF's assessment of its compliance with the Basel Commitee Sound Principles.

11. The amounts of available and required stable funding specified in the standard are calibrated to reflect the presumed degree of stability of liabilities and liquidity of assets.

12. The calibration reflects the stability of liabilities across two dimensions:

    a) **Funding tenor** – The NSFR is generally calibrated such that longer-term liabilities are assumed to be more stable than short-term liabilities.

    b) **Funding type and counterparty** – The NSFR is calibrated under the assumption that short-term (maturing in less than one year) deposits provided by retail customers and funding provided. The funding provided by retail customers are more stable than the gross funding of the same maturity from other counterparties.

13. In determining the appropriate amounts of required stable funding for various assets, the following criteria were taken into consideration, recognising the potential trade-offs between these criteria:

    a) **Resilient credit creation** – The NSFR requires stable funding for some proportion of lending to the real economy in order to ensure the continuity of this type of intermediation.

b) **Bank behaviour** – The NSFR is calibrated under the assumption that banks may seek to roll over a significant proportion of maturing loans to preserve customer relationships.

c) **Asset tenor** – The NSFR assumes that some short-dated assets (maturing in less than one year) require a smaller proportion of stable funding because banks would be able to allow some proportion of those assets to mature instead of rolling them over.

d) **Asset quality and liquidity value** – The NSFR assumes that unencumbered, high-quality assets that can be securitised or traded, and thus can be readily used as collateral to secure additional funding or sold in the market, do not need to be wholly financed with stable funding.

14. Additional stable funding sources are also required to support at least a small portion of the potential calls on liquidity arising from OBS commitments and contingencies.

15. Unless otherwise indicated, definitions of NSFR are taken from chapter relating to liquidity coverage ratio, the application of NSFR is designed for entities described in section 1.1 of AMF's *Adequacy of Capital Base Guideline* (Financial cooperatives) as well as *Capital Adequacy Guideline* (Credit unions not member of a federation, trust companies and savings companies).

6.2.1 Definition of available stable funding

16. The amount of available stable funding (ASF) is measured based on the broad characteristics of the relative stability of an institution's funding sources, including the contractual maturity of its liabilities and the differences in the propensity of different types of funding providers to withdraw their funding. The amount of ASF is calculated by first assigning the carrying value of an institution's capital and liabilities to one of five categories as presented below. The amount assigned to each category is then multiplied by an ASF factor, and the total ASF is the sum of the weighted amounts. Carrying value represents the amount at which a liability or equity instrument is recorded before the application of any regulatory deductions, filters or other adjustments.

17. When determining the maturity of an equity or liability instrument, investors are assumed to redeem a call option at the earliest possible date. For funding with options exercisable at the bank's discretion, banks should assume that they will be exercised at the earliest possible date unless the bank can demonstrate to its supervisor's satisfaction that the bank would not exercise this option under any circumstances. For long-dated liabilities, only the portion of cash flows falling at or beyond the six-month and one-year time horizons should be treated as having an effective residual maturity of six months or more and one year or more, respectively.

6.2.1.1 Liabilities and capital receiving a 100% ASF Factor

18. Liabilities and capital instruments receiving a 100% ASF factor comprise:

a) The total amount of regulatory capital, before the application of capital deductions, as defined in paragraph 49 of *Adequacy of Capital Base Guideline* excluding the proportion of Tier 2 instruments with residual maturity of less than one year;

b) The total amount of any capital instrument not included in (a) that has an effective residual maturity of one year or more excluding any instruments with explicit or embedded options that, if exercised, would reduce the expected maturity to less than one year; and

c) The total amount of secured and unsecured borrowings and liabilities (including term deposits) with effective residual maturities of one year or more. Cash flows falling below the one-year horizon but arising from liabilities with a final maturity greater than one year should not qualify for the 100% ASF factor.

6.2.1.2 Liabilities receiving a 95% ASF Factor

19. Liabilities receiving a 95% ASF factor comprise "stable" (as defined in the LCR in paragraphs 75 to 78) non-maturity (demand) deposits and/or term deposits with residual maturities of less than one year provided by retail and small- and medium-sized entity (SME) customers.[144]

6.2.1.3 Liabilities receiving a 90% ASF Factor

20. Liabilities receiving a 90% ASF factor comprise "less stable" (as defined in the LCR in paragraphs 79 to 81) non-maturity (demand) deposits and/or term deposits with residual maturities of less than one year provided by retail and SME customers.

6.2.1.4 Liabilities receiving a 50% ASF Factor

21. Liabilities receiving a 50% ASF factor comprise:

a) funding (secured and unsecured) with a residual maturity of less than one year provided by non-financial corporate customers

b) operational deposits (as defined in paragraphs 93 to 104 of this Guideline)

c) funding with residual maturity of less than one year from sovereigns, public sector entities (PSEs), and multilateral and national development banks

[144] Retail deposits are defined in LCR paragraph 73 of Chapter 2 of the present Guideline. Retail deposits are defined in paragraph 273 of BCBS, *International Convergence of Capital Measurement and Capital Standards; A revised Framework – Comprehensive version*, June 2006.

d) other funding (secured and unsecured) not included in the categories above with residual maturity of not less than six months and less than one year, including funding from central banks and financial institutions

6.2.1.5 Liabilities receiving a 0% ASF Factor

22. Liabilities receiving a 0% ASF factor comprise:

a) all other liabilities and equity categories not included in the above categories, including other funding with residual maturity of less than six months from central banks and financial institutions[145]

b) other liabilities without a stated maturity. This category may include short positions and open maturity positions

Two exceptions can be recognised for liabilities without a stated maturity:

- First, deferred tax liabilities, which should be treated according to the nearest possible date on which such liabilities could be realised.

- Second, minority interest, which should be treated according to the term of the instrument, usually in perpetuity.

These liabilities would then be assigned either a 100% ASF factor if the effective maturity is one year or greater, or 50%, if the effective maturity is no less than six months and less than one year; and

c) Derivatives payable net of derivatives receivable if payables are greater than receivables. A bank will usually have both net derivatives liabilities (i.e. payables) and net derivatives assets (i.e. receivables) on its balance sheet. Banks should deduct any net payable from any net receivable and the outcome is allocated 100% RSF if it is a net receivable or 0% ASF if it is a net payable position. During the consultative period, the Basel Committee will continue to evaluate alternative treatments for derivatives within the NSFR.

23. Table 1 below summarizes the components of each of the ASF categories and the associated maximum ASF factor to be applied in calculating an institution's total amount of available stable funding under the standard.

[145] At the discretion of the AMF, deposits between the same cooperative bank network can be excluded from liabilities receiving a 0% ASF provided if they are required by law in some jurisdiction to be placed at the central organisation and are legally constrained within the cooperative bank network as minimum deposit requirements.

TABLE 1

Liability Categories and associated ASF factors	
ASF Factor	**Components**
100%	• Regulatory capital • Other capital instruments and liabilities with effective residual maturity of one year or more
95%	• Stable non-maturity (demand) deposits and term deposits with residual maturity of less than one year provided by retail and SME customers
90%	• Less stable non-maturity deposits and term deposits with residual maturity of less than one year provided by retail and SME customers
50%	• Funding with residual maturity of less than one year provided by non-financial corporate customers • Operational deposits • Funding with residual maturity of less than one year from sovereigns, public sector entities (PSEs), and multilateral and national development banks • Other funding with residual maturity of not less than six months and less than one year not included in the above categories, including funding provided by central banks and financial institutions
0%	• All other liabilities and equity not included in above categories, including liabilities without a stated maturity • Derivatives payable net of derivatives receivable if payables are greater than receivables

6.2.2 Definition of required stable funding for assets and off-balance sheet exposures

24. The amount of required stable funding is measured based on the broad characteristics of the liquidity risk profile of an institution's assets and OBS exposures. The amount of required stable funding is calculated by first assigning the carrying value of an institution's assets to the categories listed. The amount assigned to each category is then multiplied by its associated required stable funding (RSF) factor and the total RSF is the sum of the weighted amounts added to the amount of OBS activity (or potential liquidity exposure) multiplied by its associated RSF factor. Definitions mirror those outlined in the LCR, unless otherwise specified.

25. The RSF factors assigned to various types of assets are parameters intended to approximate the amount of a particular asset that would have to be funded, either because it will be rolled over, or because it could not be monetised through sale or used as collateral in a secured borrowing transaction over the course of one year without significant expense. Under the standard, such amounts are expected to be supported by stable funding.

26. Assets should be allocated to the appropriate RSF factor based on their residual maturity or liquidity value. When determining the maturity of an instrument, investors should be assumed to exercise any option to extend maturity. For amortising loans, the portion that comes due within the one-year horizon can be treated in the less than a year residual maturity category.

6.2.2.1 Encumbered Assets

27. Assets on the balance sheet[146] that are encumbered 9 for one year or more receive a 100% RSF factor. Assets encumbered for a period of six months or more and less than one year that would, if unencumbered, receive an RSF factor lower than or equal to 50%, receive a 50% RSF factor. Assets encumbered for six months or more and less than one year that would, if unencumbered, receive an RSF factor higher than 50%, retain that higher RSF factor. Where assets have less than six months remaining in the encumbrance period, those assets may receive the same RSF factor as an equivalent asset that is unencumbered. In addition, for the purposes of calculating the NSFR, assets that are encumbered for central bank liquidity operations may also receive the same RSF factor as a similar asset that is unencumbered.

6.2.2.2 Secured financing transactions

28. For secured funding arrangements, use of balance sheet and accounting treatments should generally result in banks excluding, from their assets, securities which they have borrowed in securities financing transactions (such as reverse repos and collateral swaps) where they do not have beneficial ownership. In contrast, banks should include securities they have lent in securities financing transactions where they retain beneficial ownership. Banks should also not include any securities they have received through collateral swaps if those securities do not appear on their balance sheets. Where banks have encumbered securities in repos or other securities financing transactions, but have retained beneficial ownership and those assets remain on the bank's balance sheet, the bank should allocate such securities to the appropriate RSF category.

6.2.2.3 Assets assigned a 0% factor

Assets assigned a 0% RSF factor

29. Assets assigned a 0% RSF factor comprise:

    a) Coins and banknotes immediately available to meet obligations;

    b) All central bank reserves (including required reserves and excess reserves); and

    c) All unencumbered loans to banks subject to prudential supervision (including interbank placements) with residual maturities of less than six months.

[146] Encumbered assets include but are not limited to assets backing securities or covered bonds. Unencumbered means free of legal, regulatory, contractual or other restrictions on the ability of the bank to liquidate, sell, transfer or assign the asset.

6.2.2.4 Assets assigned a 5% factor

30. Assets assigned a 5% RSF factor comprise unencumbered Level 1 assets as defined in LCR paragraph 50, excluding assets receiving a 0% RSF as specified above, and including:

a) marketable securities representing claims on or guaranteed by sovereigns, central banks, PSEs, the Bank for International Settlements, the International Monetary Fund, the European Central Bank and European Community, or multilateral development banks that are assigned a 0% risk-weight under the Basel II[147] Standardised Approach for credit risk; and

b) certain non-0% risk-weighted sovereign or central bank debt securities as specified in Chapter 2 of this Guideline.

6.2.2.5 Assets assigned a 15% RSF factor

31. Assets assigned a 15% RSF factor comprise unencumbered Level 2A assets as defined in LCR paragraph 52 of Chapter 2 of this Guideline, including:

a) Marketable securities representing claims on or guaranteed by sovereigns, central banks, PSEs or multilateral development banks that are assigned a 20% risk weight under the Basel II[148] Standardized Approach for credit risk; and

b) Corporate debt securities (including commercial paper) and covered bonds with a credit rating equal or equivalent to at least AA–.

6.2.2.6 Assets assigned a 50% RSF factor

32. Assets assigned a 50% RSF factor comprise:

a) unencumbered Level 2B assets as defined and subject to the conditions set forth in LCR paragraph 54 of Chapter 2 of the present Guideline, including:

- residential mortgage-backed securities (RMBS) with a rating of at least AA
- corporate debt securities (including commercial paper) with a credit rating of between A+ and BBB–

147 Autorité des marchés financiers, *Adequacy of Capital Base Guideline* (Financial services cooperatives) (available in French only) and *Capital Adequacy Guideline* (Credit unions not members of a federation, trust companies and savings companies), Chapter 3, January 2013.
http://www.lautorite.qc.ca/en/guidelines-insurers-pro.html

148 See Footnote 147.

- exchange-traded common equity shares not issued by financial institutions or their affiliates

b) any HQLA as defined in the LCR that are encumbered for a period of six months or more and less than one year

c) all loans to banks subject to prudential supervision with residual maturity of six months or more and less than one year

d) deposits held at other financial institutions for operational purposes, as outlined in LCR paragraphs 93–104, that are subject to the 50% ASF factor in paragraph 21 (b)

e) all other non-HQLA not included in the above categories that have a residual maturity of less than one year, including loans to non-bank financial institutions, loans to non-financial corporate clients, loans to retail customers (i.e. natural persons) and small business customers, and loans to sovereigns, central banks and PSEs[149]

6.2.2.7 Assets assigned a 65% RSF factor

33. Assets assigned a 65% RSF factor comprise:

a) Unencumbered residential mortgages with a residual maturity of one year or more that would qualify for a 35% or lower risk weight under the Basel II Standardised Approach for credit risk;[150] and

b) Other unencumbered loans not included in the above categories, excluding loans to financial institutions, with a residual maturity of one year or more, that would qualify for a 35% or lower risk weight under the Basel II[151] Standardised Approach for credit risk.

6.2.2.8 Assets assigned 85% RSF factor

34. Assets assigned an 85% RSF factor comprise:

a) Other unencumbered performing loans that do not qualify for the 35% or lower risk weight under the Basel II[152] Standardised Approach for credit

[149] Loans related to multilateral and national development banks with residual maturities of less than six months that have short-term pass-through obligations receive a 50 % RSF factor and are, thus, treated symmetrically on the ASF and RSF side, subject to the condition that both the asset and liability remain on the balance sheet.

[150] Autorité des marchés financiers, *Adequacy of Capital Base Guideline* (Financial services cooperatives), January 2014 (available in French only) and *Capital Adequacy Guideline* Credit unions not members of a federation, trust companies and savings companies), January 2014.

http://www.lautorite.qc.ca/en/guidelines-insurers-pro.html

[151] See Footnote 150.

[152] See Footnote 150.

risk and have residual maturities of one year or more, excluding loans to financial institutions;

b) Unencumbered securities that are not in default and do not qualify as HQLA according to the LCR including exchange-traded equities; and

c) Physical traded commodities, including gold.

6.2.2.9 Assets assigned a 100% RSF factor

35. Assets assigned a 100% RSF factor comprise:

a) All assets that are encumbered for a period of one year or more;

b) Derivatives receivable net of derivatives payable if receivables are greater; and

c) All other assets not included in the above categories, including non-performing loans, loans to financial institutions with a residual maturity of one year or more, non-exchange-traded equities, fixed assets, pension assets, intangibles, deferred tax assets, retained interest, insurance assets, subsidiary interests and defaulted securities.

36. Table 2 summarises the specific types of assets to be assigned to each asset category and their associated RSF factor.

TABLE 2

Assets: Categories and associated RSF factors	
RSF factor	**Components of RSF category**
0%	• Coins and banknotes • All central bank reserves • Unencumbered loans to banks subject to prudential supervision with residual maturities of less than 6 months
5%	• Unencumbered Level 1 assets, excluding coins, banknotes and central bank reserves
15%	• Unencumbered Level 2A assets
50%	• Unencumbered Level 2A assets • HQLA encumbered for a period of six months or more and less than one year • Loans to banks subject to prudential supervision with residual maturities six months or more and less than one year • Deposits held at other financial institutions for operational purposes • All other assets not included in the above categories with residual maturity of less than one year, including loans to non-bank financial institutions, loans to non-financial corporate clients, loans to retail and small business customers, and loans to sovereigns, central banks and PSEs
65%	• Unencumbered residential mortgages with a residual maturity of one year or more and with a risk weight of less than or equal to 35% • Other unencumbered loans not included in the above categories, excluding loans to financial institutions, with a residual maturity of one year or more and with a risk weight of less than or equal to 35% under the Standardised Approach
85%	• Other unencumbered performing loans with risk weights greater than 35% under the Standardised Approach and residual maturities of one year or more, excluding loans to financial institutions • Derivatives receivable net of derivatives payable if receivables are greater than payables • Physical traded commodities, including gold
100%	• All assets that are encumbered for a period of one year or more • Derivatives receivable net of derivatives payable if receivables are greater than payables • All other assets not included in the above categories, including non-performing loans, loans to financial institutions with a residual maturity of one year or more, non-exchange-traded equities, fixed assets, pension assets, intangibles, deferred tax assets, retained interest, insurance assets, subsidiary interests, and defaulted securities

6.2.2.10 Off-balance sheet exposures

37. Many potential OBS liquidity exposures require little direct or immediate funding but can lead to significant liquidity drains over a longer time horizon. The NSFR assigns an RSF factor to various OBS activities in order to ensure institutions hold stable funding for the portion of OBS exposures that may be expected to require funding within a one-year horizon.

38. Consistent with the LCR, the NSFR identifies OBS exposure categories based broadly on whether the commitment is a credit or liquidity facility or some other contingent funding obligation. Table 3 identifies the specific types of OBS exposures to be assigned to each OBS category and their associated RSF factor.

TABLE 3

Off-balance sheet expositions: Categories and associated RSF factors	
RSF factor	**RSF Categories**
5% of the currently undrawn portion	Irrevocable and conditionally revocable credit and liquidity facilities to any client
The AMF can specify the RSF factors based on the Canadian market evolution if needed	Other contingent funding obligations, including products and instruments such as: • Unconditionally revocable credit and liquidity facilities; • Trade finance-related obligations (including guarantees and letters of credit); • Guarantees and letters of credit unrelated to trade finance obligations; • Non-contractual obligations such as: ➢ potential requests for debt repurchases of the bank's own debt or that of related conduits, securities investment vehicles and other such financing facilities; ➢ structured products where customers anticipate ready marketability, such as adjustable rate notes and variable rate demand notes (VRDNs); ➢ managed funds that are marketed with the objective of maintaining a stable value

Annex 1 Combining the tools

The following is a non-exhaustive set of examples which illustrate how the tools could be used in different combinations by supervisors to assess an institution's resilience to intraday liquidity risk.

1. Time-specific obligations relative to total payments and available intraday liquidity at the start of the business day

If a high proportion of an institution's payment activity is time critical, the institution has less flexibility to deal with unexpected shocks by managing its payment flows, especially when its amount of available intraday liquidity at the start of the business day is typically low. In such circumstances, the AMF may expect the institution to have adequate risk management arrangements in place or to hold a higher proportion of unencumbered assets to mitigate this risk.

2. Available intraday liquidity at the start of the business day relative to the impact of intraday stresses on the institution's daily liquidity usage

If the impact of an intraday liquidity stress on an institution's daily liquidity usage is large relative to its available intraday liquidity at the start of the business day, it suggests that the institution may struggle to settle payments in a timely manner in conditions of stress.

3. Relationship between daily maximum liquidity usage, available intraday liquidity at the start of the business day and the time-specific obligations

If an institution misses its time-specific obligations, it could lead to a significant impact on other institutions. If it were demonstrated that the institution's daily liquidity usage was high and the lowest amount of available intraday liquidity at the start of the business day were close to zero, it might suggest that the institution is managing its payment flows with an insufficient pool of liquid assets.

4. Total payments and value of payments made on behalf of correspondent banking customers

If a large proportion of an institution's total payment activity is made by a correspondent institution on behalf of its customers and, depending on the type of the credit lines extended, the correspondent institution could be more vulnerable to a stress experienced by a customer. The AMF may wish to understand how this risk is being mitigated by the correspondent institution.

5. Intraday throughput and daily liquidity usage:

If an institution starts to defer its payments and this coincides with a reduction in its liquidity usage (as measured by its largest positive net cumulative position), the AMF may wish to establish whether the institution has taken a strategic decision to delay payments to reduce its usage of intraday liquidity. This

behavioural change might also be of interest to the overseers given the potential knock-on implications to other participants in the LVPS.

Annex 2-I Illustrative Summary of the LCR

(Percentages are factors to be multiplied by the total amount of each item)

Item	Factor
Stock of HQLA	
A. Level 1 assets	
• Coins and bank notes • Qualifying marketable securities from sovereigns, central banks, PSEs, and multilateral development banks • Qualifying central bank reserves • Domestic sovereign or central bank debt for non-0% risk-weighted sovereigns	100%
B. Level 2 assets (Maximum of 40% of HQLA)	
Level 2A assets • Sovereign, central bank, multilateral development banks, and PSE assets qualifying for 20% risk weighting • Qualifying corporate debt securities rated AA- or higher • Qualifying corporate bonds rated AA- or higher	85%
Level 2B assets (Maximum of 15% of HQLA)	
• T Qualifying RMBS	75%
• Qualifying corporate debt securities rated between A+ and BBB-	50%
• Qualifying to Tier 1A shares	50%
Total value of stock of HQLA	

Cash Outflows	
A. Retail deposits	
Demand deposits and term deposits (less than 30 days maturity)	
• Stable deposits (deposit insurance scheme meets additional criteria)	3%
• Stable deposits	5%
• Less stable retail deposits	10%
Term deposits with residual maturity greater than 30 days	0%
B. Unsecured wholesale funding	
Demand and term deposits (less than 30 days maturity) provided by small business customers :	
• Stable deposits	5%
• Less stable deposits	10%
Operational deposits generated by clearing, custody and cash management activities	25%
• Portion covered by deposit insurance	5%
Non-financial corporates, sovereigns, central banks, multilateral development banks, and PSEs	40%
• If the entire amount fully covered by deposit insurance scheme	20%
Other legal entity customers	100%
C. Secured funding	
• Secured funding transactions with a central bank counterparty or backed by Level 1 assets with any counterparty	0%
• Secured funding transactions backed by Level 2A assets, with any counterparty	15%
• Secured funding transactions backed by non-Level 1 or non-Level 2A assets, with domestic sovereigns, multilateral development banks, or domestic PSEs as a counterparty	25%
• Backed by RMBS eligible for inclusion in Level 2B	25%
• Backed by another Level 2B asset	50%
• All other secured funding transactions	100%

D. Additional requirements	
Liquidity needs (e.g. collateral calls) related to financing transactions, derivatives and other contracts	3 notch downgrade
Market valuation changes on derivatives transactions (largest absolute net 30-day collateral flows realised during the preceding 24 months)	Look back approach
Valuation changes on non-Level 1 posted collateral securing derivatives	20%
Excess collateral held by an institution related to derivative transactions that could contractually be called at any time by its counterparty	100%
Liquidity needs related to collateral contractually due from the reporting institutions on derivatives transactions	100%
Increased liquidity needs related to derivative transactions that allow collateral substitution to non-HQLA assets	100%
ABCP, SIVs,[153] conduits, SPVs, etc.:	
• Liabilities from maturing ABCP, SIVs, SPVs, etc. (applied to maturing amounts and returnable assets)	100%
• Asset Backed Securities (including covered bonds) applied to maturing amounts.	100%
Currently undrawn committed credit and liquidity facilities provided to:	
• Retail and small business clients	5%
• Non-financial corporates, sovereigns and central banks, multilateral development banks, and PSEs	10% for credit 30% for liquidity
• Institutions subject to prudential supervision	40%
• Other financial institutions (include securities firms, insurance companies)	40% for credit 100% for liquidity
• Other legal entity customers, credit and liquidity facilities	100%
Other contingent funding liabilities (such as guarantees, letters of credit, revocable credit and liquidity facilities, etc.)	AMF'S discretion
• Trade finance	0 to 5%
• Customer short positions covered by other customers' collateral	50%
Any additional contractual outflows	100%
Any other contractual outflows	100%
Any other contractual cash outflows	100%
Total cash outflows	

[153] Structured Investment Vehicles

Cash inflows	
Maturing secured lending transactions backed by the following collateral:	
Level 1 assets	0%
Level 2A assets	15%
Level 2B assets • RMBS • Other assets	 25% 50%
Margin lending backed by all other collateral	50%
All other assets	100%
Credit of liquidity facilities provided to the reporting bank	0%
Operational deposits held at other financial institutions (include deposits held at centralised institution of network of co-operative institution)	0%
Other inflows by counterparty:	
• Amounts to be received from retail counterparties • Amounts to be received from non-financial wholesale counterparties, from transactions other than those listed in above inflow categories. • Amounts to be received from financial institutions and central banks, from transactions other than those listed in above inflow categories.	50% 50% 100%
Net derivative cash inflows	100%
Other contractual cash inflows	AMF's discretion
Total cash inflows	
Total net cash inflows **Total cash outflows minus min** **(total cash inflows, 75% of gross outflows)**	
LCR = Stock of HQLA / Total net cash inflows	

Annex 2-II Practical example of monitoring tools

The following example illustrates how the tools would operate for an institution on a particular business day. Assume that on the given day, the institution's payment profile and liquidity usage is as follows:

Hours	Payments sent	Payments sent	Net
07:00 a.m.	Payment A: $450		- $450
07:58 a.m.		$200	- $250
08:55 a.m.	Payment B: $100		- $350
10:00 a.m.	Payment C: $200		- $550
10:45 a.m.		$400	- $150
11:59 a.m.		$300	+ $150
1:00 p.m.	Payment D: $300		- $150
1:45 p.m.		$350	+ $200
3:00 p.m.	Payment: $250		- $50
3:32 p.m.	Payment: $100		- $150
5:00 p.m.		$150	0

1. Direct participant

Details of the institution's payment profile are as following:

Payment A:	$450	
Payment B:	$100	to settle obligations in an ancillary system
Payment C:	$200	which has to be settled by 10 a.m.
Payment D:	$300	on behalf of a counterparty using some of a $500 unsecured credit line that the institution extends to the counterparty
Payment E:	$250	
Payment F:	$100	

The institution has $300 of central bank reserves and $500 of eligible collateral.

A(i) Daily maximum liquidity usage:

Largest negative net cumulative positions: **$550**

Largest positive net cumulative positions: **$200**

A(ii) Available intraday liquidity at the start of the business day:

$300 of central bank reserves + $500 units of eligible collateral (routinely transferred to the central bank) = **$800**

A(iii) Total payments:

Gross payments sent: **$450 + $100 + $200 + $300 + $250 + $100 = $1,400**

Gross payments received: **$200 + $400 + $300 + $350 + $150 = $1,400**

A(iv) Time-specific obligations:

$200 + value of ancillary payment ($100) = **$300**

B(i) Value of payments made on behalf of correspondent banking customers: **$300**

B(ii) Intraday credit line extended to customers:

Value of intraday credit lines extended: **$500**
Value of credit line used: **$300**

C(i) Intraday throughput

Time	Cumulative sent	% sent
08:00 a.m.	$450	32.14
09:00 a.m.	$550	39.29
10:00 a.m.	$750	53.57
11:00 a.m.	$750	53.57
12:00 a.m.	$750	53.57
1:00 p.m.	$1,050	75.00
2:00 p.m.	$1,050	75.00
3:00 p.m.	$1,300	92.86

Time	Cumulative sent	% sent
4:00 p.m.	$1,400	100.00
5:00 p.m.	$1,400	100.00
6:00 p.m.	$1,400	100.00

2. Institutions that use correspondent banking services

Details of the bank's payment profile are as followings:

Payment A: $450
Payment B: $100
Payment C: $200 which has been settled by 10:00 a.m.
Payment D: $300
Payment E: $250
Payment F: $100 which has been settled by 4:00 p.m.

The bank has $300 of account balance at the correspondent bank and $500 of credit lines of which $300 unsecured and also uncommitted.

A(i) Daily maximum intraday liquidity usage:

Largest negative net cumulative positions: **$550**
Largest negative net cumulative positions: **$200**

A(ii) Available intraday liquidity at the start of the business day:

$300 of account balance at the correspondent bank +
$500 of credit lines (of which $300 unsecured
and uncommitted) = **$800**

A(iii) Total payments

Gross payments sent: **$450 + $100 + $200 + $300 + $250 + $100 =** **$1,400**

Gross payments received: **$200 + $400 + $300 + $350 + $150** = **$1,400**

A(iv) Time-specific obligations: **$200 + $100** = **$300**

Annex 3 Example of a declaration form

TABLE A

Direct participants				
Reporting month				
Name of large value payment system				
A(i) Daily maximum intraday liquidity usage	Max	2 d max	3 d max	Average
1. Largest positive net cumulative position				
2. Largest negative net cumulative position				
A(ii) Available intraday liquidity at the start of the business day	Min	2 d min	3 d min	Average
Total				
Of which:				
1. Central bank reserves				
2. Collateral pledged at the central bank				
3. Collateral pledged at ancillary system				
4. Unencumbered liquid assets on an institution's balance sheet				
5. Total credit lines available[154]				
5a. Secured				
5b. Committed				
6. Balances with other institutions				
7. Other				
A(iii) Total payments	Max	2 d max	3 d max	Average
1. Gross payments sent				
2. Gross payments received				
A(iv) Time-specific obligations	Max	2 d max	3 d max	Average
C(i) Daily throughput (%)				
1. Throughout at 8:00	Average			
2. Throughout at 9:00				
3. Throughout at 10:00				

[154] This figure includes all available credit lines, including uncommitted and unsecured.

TABLE A

Direct participants				
Reporting month				
Name of large value payment system				
4. Throughout at 11:00 a.m.				
5. Throughout at 12:00 a.m.				
6. Throughout at 1:00 p.m.				
7. Throughout at 2:00 p.m.				
8. Throughout at 3 :00 p.m.				
9. Throughout at 4:00 p.m.				
10. Throughout at 5:00 p.m.				
11. Throughout at 6:00 p.m.				

TABLE B

Banks that use correspondent banks				
Reporting month				
Name of correspondent bank				
A(i) Daily maximum liquidity usage	Max	2 d max	3 d max	Average
1. Largest positive net cumulative position				
2. Largest negative net cumulative position				
A(ii) Available intraday liquidity at the start of the business day	Min	2 d min	3 d min	Average
Total				
Of which :				
1. Balance with the correspondent bank				
2. Total credit lines from the correspondent bank[155]				
2a. Of which secured				
2b. Of which committed				

[155] Paragraph 145 of the Sound Principles states that "the host supervisor needs to understand how the liquidity profile of the group contributes to risks to the entity in its jurisdiction, while the home supervisor requires information on material risks a foreign branch or subsidiary poses to the banking group as a whole."

TABLE B

Banks that use correspondent banks				
Reporting month				
Name of correspondent bank				
3. Collateral pledged at the correspondent bank				
4. Collateral pledged at the Bank of Canada				
5. Unencumbered liquid assets on an institution's balance sheet				
6. Bank of Canada reserves				
7. Balances with other institutions				
8. Other				
A(iii) Total payments	Max	2 d max	3 d max	Average
1. Gross payments sent				
2. Gross payments received				
A(iv) Time-specific obligations	Max	2 d max	3 d max	Average
1. Total value of time-specific obligations				

TABLE C

Institutions that provided banking services				
Reporting month				
B(i) Value of payments made on behalf of correspondent banking customers	Max	2 d max	3 d max	Average
1. total gross value of payments on behalf of correspondent banking customers				
B(ii) Intraday credit lines extended to customers	Max	2 d max	3 d max	
1. Total value of credit lines extended to customers				
1a. Of which secured				
1b. Of which committed				
1c. Of which used at peak usage				