



BMO Financial Corp.

**Modified Liquidity Coverage Ratio
Disclosure**

For the quarterly period ended March 31, 2019

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Introduction

BMO Financial Corp. (BFC), a U.S. Intermediate Holding Company (IHC), is a wholly-owned subsidiary of Bank of Montreal (BMO or “the Parent”) and is regulated by the Board of Governors of the Federal Reserve System (FRB or “the Fed”). BFC’s wholly-owned principal banking subsidiary, BMO Harris Bank N.A. (BHB), is regulated by the Office of the Comptroller of the Currency (OCC) and the Federal Deposit Insurance Corporation (FDIC). BMO (together, with its subsidiaries, “we” or “us”) is a highly diversified financial services provider based in North America. BMO provides a broad range of personal and commercial banking, wealth management and investment banking products and services to more than 12 million customers.

Under the LCR rule, certain banking organizations, including BFC, must maintain a minimum Liquidity Coverage Ratio (LCR) calculated as the ratio of unencumbered highly liquid assets (HQLA) to total net stressed cash outflows over a prospective 30 calendar-day period. The LCR must be at least 100%. While banks are required to maintain an LCR greater than 100% in normal conditions, banks are also expected to be able to utilize HQLA in a period of stress, which may result in an LCR of less than 100% during that period.

BFC uses the LCR to monitor its liquidity position and demonstrate the entity’s ability to withstand a severe, short-term liquidity stress scenario. The LCR is only one measure of a bank’s liquidity position and does not fully capture all of the bank’s liquid assets or the funding alternatives that may be available in a period of stress.

BFC is subject to the modified LCR¹, which is a less stringent version of the full LCR. There are three primary differences between the modified and the full LCR:

- (1) the modified LCR does not require a maturity mismatch add-on² that is required under the full LCR;
- (2) total net stressed cash outflows are multiplied by 70% under the modified LCR; and
- (3) the modified LCR is calculated monthly whereas the full LCR is calculated daily.

The information in this document is calculated in accordance with the LCR rule and presented in accordance with the LCR disclosure rule. Under the LCR disclosure rule, covered companies are required to publicly disclose quantitative and qualitative LCR information on a quarterly basis. Average HQLA, cash inflows, outflows and modified LCR for BFC are calculated as the simple average of the monthly values over three months for the quarter ended March 31, 2019.

¹ On April 8, 2019, the Fed proposed rules tailoring the application of enhanced prudential standards for foreign banking organizations operating in the U.S., including BMO. Under the proposed rules, BFC will be subject to a reduced LCR likely calculated differently than the current modified LCR. BFC will continue to calculate and disclose its LCR under the existing modified LCR methodology until the changes go into effect.

² Covered companies subject to the full LCR must calculate a maturity mismatch add-on to address liquidity risks stemming from mismatches between outflows and inflows during the 30-day period.

Modified Liquidity Coverage Ratio

BFC's modified LCR is summarized in the table below. The average monthly modified LCR for the quarter ended March 31, 2019 is 138%.

Modified Liquidity Coverage Ratio

Average Weighted Amount ⁽¹⁾ (U.S. \$ in millions, except as noted)	Three months ended March 31, 2019
Total HQLA	\$19,845
Total net cash outflows	\$14,350
Modified Liquidity Coverage Ratio	138%

⁽¹⁾ Regulatory prescribed weights are applied to cash flows and HQLA to arrive at the weighted values and the modified LCR.

BFC's LCR is driven by:

- HQLA, which primarily consists of cash and highly-rated debt issued or backed by governments.
- Net cash outflows which include outflows from deposits, secured and unsecured wholesale funding, commitments and potential collateral requirements offset by permitted inflows from loans, securities lending and trading activities and other non-HQLA debt maturing over a 30-day horizon.

BFC's modified LCR ratio of 138% is down from 143% last quarter due to an increase in net cash outflows, partially offset by an increase in HQLA. BFC's modified LCR may fluctuate from period to period as a result of market conditions, our liquidity and funding risk profile and related limits, customer behavior, or other factors.

The following table presents further detail on BFC's modified LCR calculation. The values in the "Average Weighted Amount" column reflect the prescribed weights and haircuts defined by the LCR rule to determine cash inflows, outflows and HQLA. The values in the "Average Unweighted Amount" column are calculated at market value (for HQLA) or as outstanding balances maturing or callable within 30 days (for inflows and outflows), and are not included in BFC's calculation to determine compliance with LCR requirements.

For period January 1, 2019 through March 31, 2019
(U.S. \$ in millions, except as noted)

	Average Unweighted Amount ¹	Average Weighted Amount ¹
High-Quality Liquid Assets		
1 Total eligible high-quality liquid assets (HQLA), of which:	21,042	19,845
2 Eligible level 1 liquid assets	13,065	13,065
3 Eligible level 2A liquid assets	7,977	6,780
4 Eligible level 2B liquid assets	—	—
Cash Outflow Amounts		
5 Deposit outflow from retail customers and counterparties, of which:	54,731	4,113
6 Stable retail deposit outflow	24,377	731
7 Other retail funding outflow	23,280	2,328
8 Brokered deposit outflow	7,074	1,054
9 Unsecured wholesale funding outflow, of which:	32,036	15,754
10 Operational deposit outflow	14,773	3,693
11 Non-operational funding outflow	17,083	11,881
12 Unsecured debt outflow	180	180
13 Secured wholesale funding and asset exchange outflow	27,990	8,942
14 Additional outflow requirements, of which:	53,909	11,629
15 Outflow related to derivative exposures and other collateral requirements	491	491
16 Outflow related to credit and liquidity facilities including unconsolidated structured transactions and mortgage commitments	53,418	11,138
17 Other contractual funding obligation outflow	—	—
18 Other contingent funding obligations outflow	—	—
19 Total Cash Outflow	168,666	40,438
Cash Inflow Amounts		
20 Secured lending and asset exchange cash inflow	22,661	10,678
21 Retail cash inflow	191	96
22 Unsecured wholesale cash inflow	9,592	9,058
23 Other cash inflows, of which:	107	107
24 Net derivative cash inflow	107	107
25 Securities cash inflow	—	—
26 Broker-dealer segregated account inflow	—	—
27 Other cash inflows	—	—
28 Total Cash Inflow	32,551	19,939
	Average Weighted Amount ^{2,3}	
29 HQLA Amount		19,846
30 Total Net Cash Outflow Amount Excluding the Maturity Mismatch Add-on		n/a
31 Maturity Mismatch Add-on		n/a
32 Total Net Cash Outflow Amount		14,350
33 Liquidity Coverage Ratio		138%

¹ Values are calculated based on the simple average of the monthly modified LCR over the three month disclosure period.

² The total net cash outflow amount in this column does not match the calculation using component amounts reported in rows 5-28 due to the application of a 70% factor for the modified LCR. Amounts in this column may also differ from those above due to the level 2 liquid asset cap and the total cash inflow cap.

³ Fields marked "n/a" are not required for modified LCR firms.

The Composition of Eligible HQLA

Unencumbered liquid assets include high-quality assets that are marketable, can be pledged as security for borrowings, and can be converted to cash in a time frame that meets our liquidity and funding requirements.

As shown in the following table, BFC's average unweighted and weighted HQLA are primarily comprised of Level 1 assets. BFC's Level 1 assets include cash, U.S. Treasury securities, and U.S. government-guaranteed securities. Level 2A assets, which are subject to a 15% haircut in the LCR calculation, are primarily comprised of securities issued by U.S. government-sponsored enterprises. BFC did not hold any Level 2B assets in the quarter. Excess HQLA held at BHB that is not available for transfer to BFC due to statutory, regulatory, contractual, or supervisory restrictions, including sections 23A and 23B of the Federal Reserve Act and Regulation W, is excluded from the LCR calculation.

Composition of Eligible HQLA by Category

Percentage of Total Eligible HQLA	Three months ended March 31, 2019	
	Average Unweighted	Average Weighted
Level 1 assets	62%	66%
Level 2A assets	38%	34%
Level 2B assets	—%	—%

Net Cash Outflows

The denominator of the LCR calculation, net cash outflows, is based on standardized outflow and inflow rates prescribed under the LCR rule. The calculation applies to the balances of certain assets, liabilities, and off-balance sheet items to estimate the total net cash outflow amount over the 30-day stress scenario horizon. Cash inflows that covered companies can assume are capped at 75% of cumulative cash outflows. For the modified LCR, the denominator is further modified through the application of a 70% factor. Net cash outflow and inflow rates included in the LCR may differ materially from those BFC may experience in an actual time of stress.

Concentration of Funding Sources

BFC maintains a large and stable base of customer deposits that, in combination with the organization's strong capital base, is a source of strength. It supports the maintenance of a sound liquidity position and reduces reliance on wholesale funding within the insured depository institution. Customer deposits include core deposits, larger retail, and commercial customer deposits. BFC raises unsecured wholesale term funding from the Parent that is diversified through time.

BFC's funding philosophy requires that secured and unsecured wholesale funding used to support loans and less liquid assets is longer term (typically maturing in two to ten years) to better match the term to maturity of these assets. Wholesale secured and unsecured funding for liquid trading assets is primarily shorter term (maturing in one year or less), aligns with the liquidity of the funded assets, and is subject to limits on aggregate maturities that are permitted across different time horizons.

BFC's Corporate Treasury group manages wholesale funding and broker insured deposits for the company. Wholesale funding consists primarily of short- and long-term Federal Home Loan Bank (FHLB) advances and long-term debt from BMO. Broker insured deposits include short-term institutional certificates of deposit (ICDs) and long-term brokered CDs (including bullet and structured).

Derivative Exposures and Potential Collateral Calls

BFC uses derivative instruments for trading purposes and to manage our exposures, mainly to interest rate fluctuations, as part of our asset/liability management program. BFC manages interest rate risk through bonds and interest rate swaps, which are linked to and adjust the interest rate sensitivity of a specific asset, liability, forecasted transaction or firm commitment, or a specific pool of transactions with similar risk characteristics. Risk from interest rate fluctuations may be indirectly transferred to BMO through the use of derivative contracts used as balance sheet hedging instruments.

BFC's net cash outflows related to derivative exposures are not material for purposes of the LCR calculation.

Currency Mismatch in the LCR

BFC's HQLA and net cash outflows are predominantly based in U.S. dollars. Non-U.S. dollar exposures in BFC are not material.

Liquidity Risk Management Function

Liquidity and funding risk is the potential for loss if BFC is unable to meet financial commitments in a timely manner at reasonable prices as they become due. Financial commitments include liabilities to depositors and suppliers, and lending, investment and pledging commitments. Managing liquidity and funding risk is essential to maintaining a safe and sound enterprise, depositor confidence and earnings stability. It is BFC's policy to ensure that sufficient liquid assets and funding capacity are available to meet financial commitments, even in times of stress.

The Liquidity and Funding Risk Management Framework is defined and authorized under Board-approved corporate policies and management approved standards. These policies and standards outline key management principles, liquidity and funding metrics and related limits, as well as roles and responsibilities for the management of liquidity and funding risk across the enterprise.

The Corporate Treasury group and the operating groups, as the first line of defence, are responsible for the ongoing management of liquidity and funding risk across the enterprise. BFC's Corporate Treasury group is responsible for identifying, assessing, managing, monitoring, mitigating and reporting on BFC's liquidity and funding risks. The Corporate Treasury group develops and recommends the Liquidity and Funding Risk Management Framework and the related risk appetite and limits, monitors compliance with the relevant corporate policies and assesses the impact of

market events on liquidity and funding requirements on an ongoing basis.³ Enterprise Market Risk Management, as the second line of defence, provides oversight, independent risk assessment and effective challenge of liquidity and funding management, frameworks, policies, limits, monitoring and reporting across the enterprise.

The LCR and related financial measures presented in this disclosure are projected under hypothetical stress scenario assumptions prescribed by the regulators, including HQLA haircuts and cash outflow and inflow rates. These measures are not forecasts of actual financial results for BFC. Investors in securities issued by Bank of Montreal and its affiliates should not rely on these financial measures as being indicative of expected future results.

³ BFC's Corporate Treasury group has implemented policies, procedures and controls to meet the operational requirements for eligible HQLA set forth in CFR § 249.22.