Manulife Bank

Financial Performance and Regulatory Disclosures
Q3 2017

Caution regarding forward-looking statements

This document contains certain forward-looking statements with respect to Manulife Bank of Canada's ("MBC" or the "Bank") financial condition, results of operations and business. Forward-looking statements can generally be identified by words such as "will," "expects," "believes," "seeks," "estimates," "potential," "possible," "targeting," and variations of these words and similar expressions.

Forward-looking statements involve inherent risks and uncertainties and, therefore, undue reliance should not be placed on them. Readers are cautioned that a number of factors could cause actual results to differ, in some instances materially, from those anticipated or implied in any forward-looking statement. These factors include changes in general economic conditions in the market in which MBC operates, changes to government policy and regulation, and factors specific to MBC.

The forward-looking statements in this document are, unless otherwise indicated, as of the date they are made. MBC makes no commitment to revise or update any forward-looking statements.

Overview

About Manulife Bank of Canada

MBC is a Schedule I federally chartered bank and a wholly owned subsidiary of The Manufacturers Life Insurance Company ("MLI"), a wholly owned subsidiary of Manulife Financial Corporation ("MFC"). MFC is a publicly traded financial services group. MBC and its wholly owned subsidiary, Manulife Trust Company ("MTC"), provides a wide range of financial products and services including mortgage and investment loans, and deposit products. Platinum Canadian Mortgage Trust ("PCMT") and Platinum Canadian Mortgage Trust II ("PCMT II") were established to provide financing for MBC mortgage products through securitization.

Vision

MBC's vision is to improve the wealth of Canadians by providing efficient and flexible banking solutions and integrating banking into every client's financial plan.

Purpose

MFC's purpose to help people achieve their dreams and aspirations, by putting customers' needs first and providing the right advice and solutions, guides all the activities at MBC, from strategic planning to day-to-day decision making. Our character includes the following principles:

STRONG
RELIABLE
TRUSTWORTHY
FORWARD THINKING

Financial Performance and Regulatory Disclosures

This document provides information on the Bank's consolidated financial performance and includes pertinent disclosures based on the Basel Committee on Banking Supervision's ("BCBS") Basel II and III frameworks and the Office of the Superintendent of Financial Institutions ("OSFI") B-6 and B-20 guidelines. These disclosures are intended to provide market participants with information regarding the risk profile of MBC and the application of the Basel regulatory requirements, as well as information related to MBC's residential mortgage loans portfolios to enable market participants to evaluate the Bank's residential mortgage underwriting standards.

The financial data presented in this document represents the consolidated financial results for the Bank, its subsidiary, MTC, and structured entities PCMT and PCMT II.

Contents

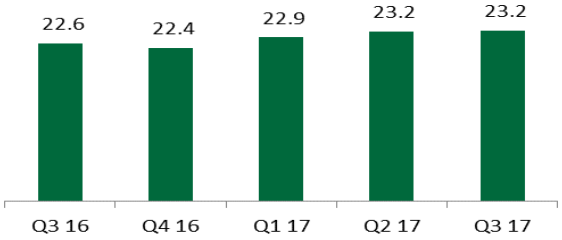
Financial Performance[1]

MBC ended the quarter with assets of $23.2 billion, which were flat as compared to June 30, 2017, and an increase of $0.6 billion, or 3%, as compared to September 30, 2016. The increase over the prior year was primarily driven by higher liquidity, reflecting expansion of securitization programs and strong deposit growth and an increase in lending assets, reflecting positive impacts from the Broker channel initiative and retention programs.

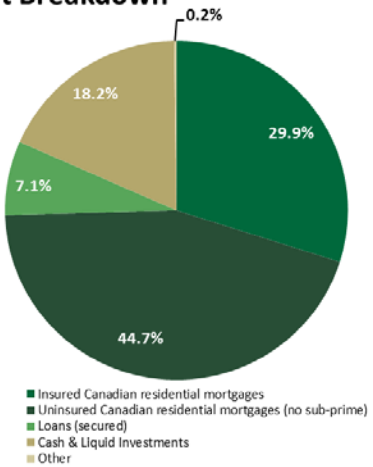
Regulatory changes, economic uncertainty and slow growth in retail credit continue to challenge the business environment and increase competitive pressures. The Bank's record of stable earnings is an indication of the success of its unique business model, which offers Canadians efficient and flexible banking solutions, and reflects the positive impacts of foundational initiatives and improved retention and customer experience programs.

Net income of $37 million for the three months ended September 30, 2017, increased $5 million, or 16%, as compared to the three months ended June 30, 2017, driven by favourable net interest margins, lower operating expenses, partially offset by lower realized investment gains, and higher provision for credit losses. Net income increased $7 million, or 23% as compared to the three months ended September 30, 2016, due to favourable net interest margins, growth in net lending assets, and lower commission expenses, partially offset by higher operating expenses and lower net gains on investments.

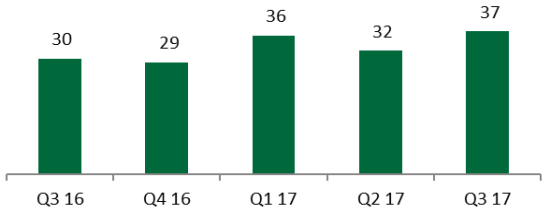
Total Assets
(in C$ billions)



Asset Breakdown



Quarterly Net Income
(in C$ millions)



[1] Financial performance information is provided to enable a reader to assess the Bank's unaudited results of operations and financial condition for the three month period ended September 30, 2017.

The Banks' efficiency ratio at September 30, 2017 of 51.3% was lower, as compared with 56.8% reported in June 30, 2017, and lower as compared with 55.3% reported in September 30, 2016. The decrease over prior quarter is primarily driven by improved net interest income and lower operating expenses, partially offset by lower net gain on investments. The decrease over the prior year is also due to improved net interest income, partially offset by higher operating expenses and lower net gain on investments.

MBC has no exposure to European sovereign debt or to the sub-prime mortgage market.

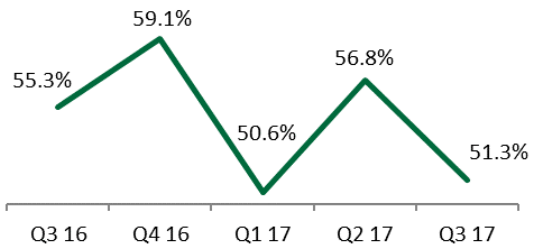
Capital

Basel III Common Equity Tier 1 ("CET1") ratio, Tier 1 capital ratio and Total capital ratio were 16.9 per cent, 19.1 per cent and 19.3 per cent, respectively, as at September 30, 2017 (based on the "all in" methodology), well in excess of minimum regulatory capital requirements.

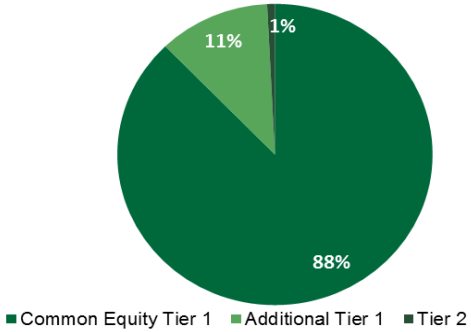
Risk weighted assets as at September 30, 2017 of approximately $7.0 billion, increased $0.1 billion, or 2%, as compared to June 30, 2017. The increase was primarily driven by growth in lending assets and an increase in undrawn commitments. Risk weighted assets as at September 30, 2017, increased $0.5 billion, or 8%, as compared with September 30, 2016, primarily driven by growth in lending assets and undrawn commitments.

Refer to the Capital Management section for further discussion on regulatory capital, capital ratios and risk weighted assets.

Efficiency Ratio



Regulatory Capital Breakdown



Total risk-weighted assets	**~$ 7 Billion**
Total capital	**~$ 1.3 Billion**
CET1 Capital Ratio	**16.9%**
Tier 1 Capital Ratio	**19.1%**
Total Capital Ratio	**19.3%**

Credit ratings

As at September 30, 2017, the long-term and short-term credit ratings remained the same as for the year ended December 31, 2016. As at September 21, 2017, DBRS has reaffirmed the Bank's long-term deposit rating of A (high) and its short-term deposit rating of R-1 (middle)[2]. As at April 21, 2017, Standard & Poor's has reaffirmed Manulife Bank's long-term deposit rating A+ and its short-term deposit rating of A-1[3].

Standard & Poor's	
Short-term rating	A-1
Long-term rating	A+
DBRS	
Short-term rating	R-1 (middle)
Long-term rating	A(high)

Key strategic priorities

MBC continues to focus on strengthening and growing its core business and customer service, while expanding into complementary products and services to meet a broader range of customer needs. The Bank's priorities include:

- Customer centricity;
- Focus on strengthening distribution capabilities and mobile banking force;
- Continue to enhance its risk management framework;
- Expand product and service offerings to meet diverse client needs;
- Continue to develop and maintain sustainable and diversified sources of funding and liquidity;
- Continuously improve its technology, operations, and customer service; and
- Continue to strengthen its brand.

[2] Long-term debt rated A is "of satisfactory credit quality and protection of interest and principal is still substantial." A is the third-highest rating out of ten. Each rating category (except AAA and D) is denoted by the subcategories "high" and "low". The absence of either a "high" or "low" designation indicates the rating is in the "middle" of the category. Short-term debt rated R-1 (middle) is of "superior credit quality and typically exemplifies above-average strength in key areas of consideration for the timely repayment of short-term liabilities." The rating R-1 (middle) is the second-highest rating out of 10.

[3] Long-term debt rated A has "strong capacity to meet financial commitments, but somewhat susceptible to adverse economic conditions and changes in circumstances." A is the third highest rating out of 10. A short-term issuer credit rating of A-1 denotes "a strong capacity to meet its financial commitments." A-1 is Standard & Poor's highest short term rating category.

Financial Performance

As at balances	Q3 2017	Q2 2017	Q1 2017	Q4 2016	Q3 2016
ASSETS					
Cash, cash equivalents and restricted cash	**$ 2,623**	$ 2,788	$ 2,787	$ 2,391	$ 2,598
Debt securities	**212**	237	249	242	217
Equity securities	**243**	233	227	232	215
	$ 3,078	$ 3,258	$ 3,263	$ 2,865	$ 3,030
Mortgage loans	**$ 18,356**	$ 18,112	$ 17,881	$ 17,710	$ 17,735
Other loans	**1,734**	1,727	1,737	1,745	1,770
	$ 20,090	$ 19,839	$ 19,618	$ 19,455	$ 19,505
Other assets	**$ 57**	$ 61	$ 58	$ 48	$ 50
Total assets	**$ 23,225**	$ 23,158	$ 22,939	$ 22,368	$ 22,585
LIABILITIES and EQUITY					
Liabilities					
Demand deposits	**$ 11,954**	$ 12,001	$ 12,278	$ 11,904	$ 11,709
Term deposits	**6,354**	6,497	6,289	6,279	6,812
	$ 18,308	$ 18,498	$ 18,567	$ 18,183	$ 18,521
Notes payable	**3,425**	3,223	2,973	2,782	2,658
Other liabilities	**146**	118	92	101	158
Subordinated debt	**-**	-	-	18	18
Total liabilities	**$ 21,879**	$ 21,839	$ 21,632	$ 21,084	$ 21,355
Equity					
Issued share capital					
Preferred shares	**$ 154**	$ 154	$ 154	$ 154	$ 154
Common shares	**217**	217	217	217	212
Contributed surplus	**157**	157	157	157	127
Retained earnings	**809**	785	767	744	727
Accumulated other comprehensive income	**9**	6	12	12	10
Total equity	**$ 1,346**	$ 1,319	$ 1,307	$ 1,284	$ 1,230
Total liabilities and equity	**$ 23,225**	$ 23,158	$ 22,939	$ 22,368	$ 22,585

	2017			2016		Fiscal YTD		Fiscal
	Q3	Q2	Q1	Q4	Q3	2017	2016	2016
Revenue								
Interest income	**$ 169**	$ 156	$ 152	$ 152	$ 155	$ 477	$ 463	$ 615
Interest expense	**72**	69	66	68	73	207	217	285
Net interest income	**$ 97**	$ 87	$ 86	$ 84	$ 82	$ 270	$ 246	$ 330
Non-interest income	**13**	17	17	17	15	47	36	53
Total revenue	**$ 110**	$ 104	$ 103	$ 101	$ 97	$ 317	$ 282	$ 383
Provision for credit losses on lending assets	**2**	-	2	-	2	4	6	6
Non-interest expense	**58**	60	53	62	55	171	162	224
Net income before income tax	**$ 50**	$ 44	$ 48	$ 39	$ 40	$ 142	$ 114	$ 153
Income tax expense	**13**	12	12	10	10	37	29	39
Net income	**$ 37**	$ 32	$ 36	$ 29	$ 30	$ 105	$ 85	$ 114

The tables above are a summary of MBC's unaudited consolidated financial statements and are consistent with the unaudited consolidated financial statements filed with OSFI with classification differences due to summarization of results.

Basel III Pillar 3 Disclosures[4]

MBC is a Schedule I bank regulated by OSFI. MTC is a federally incorporated trust company licensed to operate in Canada with full trust and loan company powers under the Trust and Loan Companies Act (Canada) and is also regulated by OSFI. Canadian Deposit-taking Institutions are subject to OSFI's Capital Adequacy Requirements ("CAR") guideline, which reflects the capital requirements that have been approved by the BCBS reform commonly referred to as Basel III. OSFI's capital requirements are applied at the consolidated MBC level. Refer to the Capital Management section for further details.

Regulatory approaches used to determine capital requirements

Credit risk

Banks are permitted a choice of two methodologies in determining the capital requirements for credit risk: the Internal Ratings Based ("IRB") or Standardized Approach. Under the IRB Approach, banks are permitted to determine risk weightings for on and off-balance sheet exposures using internal risk formulas. The Standardized Approach requires banks to use assessments from qualifying rating agencies to determine risk weightings. MBC and MTC apply the Standardized Approach when determining capital requirements for credit risk.

Market risk

Market risk capital is calculated using one of two methodologies: the Standardized Approach or Internal Models. MBC and MTC utilize the Standardized Approach, as applicable.

Operational risk

Banks are permitted to apply one of three approaches to calculate capital requirements for operational risk. The Basic Indicator Approach requires banks to hold operational risk capital equal to the average over the previous three years of a fixed percentage of positive annual gross income. The Standardized Approach divides the bank's business activities into eight business lines. For each business line, gross income is multiplied by an assigned factor, and the total capital charge is calculated as the three year average of the simple summation of regulatory capital charges across the business lines in each year. The Advanced Measurement Approach uses a bank's own internal operational risk measurement system based on prescribed quantitative and qualitative criteria to determine capital requirements and is subject to supervisory approval. MBC and MTC collectively apply the Basic Indicator Approach to determine operational risk capital requirements.

The following sections outline the Bank's risk management framework and include pertinent disclosures under Basel III Pillar 3 and under OSFI Guideline B-6 Liquidity Principles and B-20 Residential Mortgage Underwriting Practices and Procedures for MBC and MTC.

[4] The financial information included in this Pillar 3 regulatory disclosures below are unaudited and in millions of Canadian dollars, unless otherwise stated.

Credit Risk

Credit risk is the risk of loss due to the inability or unwillingness of a borrower or counterparty to fulfil its payment obligations.

Key risk factors

Credit risk is one of the most significant risks to the Bank's business, and exists in its lending activities, investment activities and derivative transactions.

Risk management strategy

Policies establish exposure limits by borrower, quality rating, industry, and geographic region. The Bank currently does not participate in the credit derivative market and does not have exposure to credit default swaps. The Chief Risk Officer ("CRO") and the Senior Credit Committee set out objectives related to the overall quality and diversification of lending portfolios and establish criteria for the selection of counterparties and intermediaries. The CRO monitors compliance with all credit policies and limits.

The Bank establishes policies and procedures to provide an independent assessment of the existence, quality and value of the credit portfolios, the integrity of the credit process, and to promote the detection of related problems. Internal audit performs periodic assessments of compliance with credit policies and procedures of credit granting and investment originating units.

The Board of Directors of both MBC and MTC ("Board of Directors") are responsible for reviewing and approving all key credit risk management policies. A review system sensitized to prescribed total credit exposure and risk rating thresholds is in place and is maintained with the intent that:

- The borrower's current financial condition is known;
- Collateral security is adequate and enforceable relative to the borrower's current circumstances;
- Credits are in compliance with covenants and margins;
- Early identification and classification of at risk credit is possible;
- Current information regarding the quality of the loan portfolio is available; and
- Higher risk credits are reviewed in order to assess the risk of default.

The Bank's risk rating systems are designed to assess and monitor credit risk. The risk assessment and monitoring processes for the lending portfolio and derivatives contracts are described below.

Lending portfolio

MBC's flagship product, Manulife One, is an all-in-one banking solution that combines a client's savings and borrowings into one Home Equity Line of Credit ("HELOC") product. This can include a client's traditional mortgage loan, personal loan, lines of credit, chequing and savings accounts, and credit card debt. The Proactive Account Monitoring ("PAM") program is a client engagement program that uses predictive indicators of potential default to

select accounts for proactive remediation. High risk clients are contacted before they enter arrears and are encouraged to undertake actions to reduce their borrowing and maintain their good standing.

As at September 30, 2017 the residential mortgage loans portfolio includes $15.5 billion of Manulife One accounts (December 31, 2016 - $15.3 billion), with the remaining comprising primarily of amortizing residential mortgage loans. Insured mortgages are insured against loss caused by borrower default under a loan secured by real property. Insurance is provided by the Canada Mortgage and Housing Corporation ("CMHC") or other authorized insurers.

Derivative counterparties

Derivative financial instrument contracts are entered into for asset-liability management purposes to better match the cash flows resulting from different re-pricing, currency and maturity dates of assets and liabilities. The Bank employs defensive hedging strategies to reduce risks in the banking book.

Interest rate risk is the risk that changing interest rates will adversely impact MBC's financial results. The Bank primarily uses vanilla interest rate swaps, where fixed and floating interest payments based on a specified amount of notional principal for a specified time period are exchanged with a swap counterparty. Foreign exchange risk refers to losses that could result from changes in foreign exchange rates arising from assets and liabilities that are denominated in foreign currency. The Bank uses foreign exchange forwards contracts to exchange with a counterparty a specified amount of one currency for a specified amount of a second currency, at a future date or range of dates.

MBC limits the types of authorized derivatives and application strategies. Approval is required from MBC's Asset Liability Committee ("ALCO") and MFC's Global ALCO for derivative application strategies and they regularly monitor hedge effectiveness. Counterparties are required to post collateral to cover positive market positions (refer to the Collateral Management section within this document). The derivative counterparty exposure is measured as net potential credit exposure, which takes into consideration mark-to-market values of all transactions with each counterparty and net of any collateral held. Market standard valuation methodologies are used for over the counter ("OTC") derivatives. Key variables impacting valuations include the Banker's Acceptance ("BA"), swap rates and foreign currency. Inputs to models are consistent with what market participants would use when pricing the instruments and are deemed observable. Inputs that are not observable in the market or cannot be derived principally from, or corroborated by, observable market data include broker quotes and inputs that are outside the observable portion. These unobservable inputs may involve significant management judgment or estimation. It should be noted that even when unobservable, inputs are based on assumptions deemed appropriate given the circumstances and consistent with what market participants would use when pricing such instruments. The Bank has not used unobservable inputs in the valuation of OTC derivatives held as at September 30, 2017.

A portion of the swaps qualify as fair value hedges for accounting purposes. Accordingly, the gains or losses recognized on derivatives are offset by the corresponding gains or losses recognized on the hedged items in income. In the third quarter of 2017, a net gain of $0.03 (net gain of nil for the third quarter of 2016) was recognized in income for swaps due to hedge ineffectiveness and a net gain of $0.2 for the nine months ended September 30, 2017 (a net gain of nil for the nine months ended September 30, 2016).

Risk control and mitigation

Diversification

MBC's credit risk governance policies require an acceptable level of diversification. Limits are in place for several portfolio dimensions including industry, geography, single-name concentrations and transaction-specific limits. Although the Bank's credit portfolio is heavily weighted to Canadian residential mortgage and other loans, the portfolio is well-diversified geographically within Canada. Credit risk exposures are monitored for concentration risk and such findings are reported to the Board of Directors, the Risk Committee and MLI's credit risk management department on a quarterly basis. Quantitative tables at the end of this section break down MBC's major credit exposure by counterparty, location and residual contractual maturities.

The average quarterly gross exposure for mortgages was $18.2 billion (third quarter of 2016 - $17.7 billion) and the 2017 average quarterly gross exposure for other loans was $1.8 billion (third quarter of 2016 - $1.9 billion). The average quarterly gross exposure for undrawn commitments was $9.2 billion (third quarter of 2016 – $8.2 billion).

Lending portfolio

In the normal course of business, various indirect commitments are outstanding that are not reflected on the Consolidated Statements of Financial Position, including commitments to extend credit in the form of loans or other financing for specific amounts and maturities. These financial commitments are subject to normal credit standards, financial controls and monitoring procedures.

Collateral management

Collateral is an integral part of the Bank's credit risk mitigation in its lending portfolio. The purpose of collateral for credit risk mitigation is to minimize losses that would otherwise be incurred, and the Bank generally requires borrowers to pledge collateral when the Bank advances credit. Residential real estate and liquid investments are examples of acceptable collateral.

Summary of Exposure Covered by Eligible Financial Collateral [5]

Counterparty type	Q3 2017	Q2 2017	Q1 2017	Q4 2016	Q3 2016
Bank [(1)]	$ -	$ 1	$ 2	$ 1	$ 1
Loans [(2)]	**1,734**	1,727	1,737	1,745	1,770
Total exposure covered by credit risk mitigation	**$ 1,734**	$ 1,728	$ 1,739	$ 1,746	$ 1,771

(1) Includes exposures to deposit taking institutions, securities firms and certain public sector entities.

(2) The maximum exposure is equal to the loan value advanced to a borrower as the value of financial collateral exceeds the amount drawn. The exposure amounts presented are net of allowance for credit losses.

Derivatives

The Bank has established policies and limits for managing credit risk exposures that may arise with counterparties when entering into derivative transactions. Gross derivative counterparty exposure is measured as the total fair value (including accrued interest) of all outstanding contracts in gain positions excluding any offsetting contracts in negative positions and the impact of collateral on hand.

The Bank limits the risk of credit losses from derivative counterparties by:

- Establishing a minimum acceptable counterparty credit rating from external rating agencies;
- Entering into master netting arrangements which permit the offsetting of contracts in a loss position in the case of a counterparty default; and
- Entering into Credit Support Annex ("CSA") agreements, whereby collateral must be provided when the exposure exceeds a certain threshold.

The collateral pledged from or to counterparties are primarily investments in the form of government and agency securities. The Bank pledges investments as collateral when the derivative mark-to-market position is negative. When the derivative mark-to-market position is positive, the counterparty is required to pledge investments as collateral. Pledging starts at a certain threshold for each counterparty in accordance with the terms of the CSA. The net market value position of the collateral posted by swap counterparties as at September 30, 2017 was nil (December 31, 2016 – $1 million). As at September 30, 2017, collateral of $16 million (December 31, 2016 – nil) was posted to its swap counterparties due to unfavourable derivative positions for the Bank.

The Bank monitors the encumbrances of liquid assets as part of its Liquidity Risk Management Framework. This is accomplished by stress testing collateral requirements based on interest rate shocks. As at September 30, 2017 the Bank no longer has collateral posting thresholds based on credit rating downgrade scenarios. As at December 31, 2016, due to the positive market value of the swaps, the Bank would not be subject to any collateral requirements in the test scenarios where MBC's credit rating is modified by up to two downgrades.

Fair Value of Derivative Instruments and Net Derivative Exposure

	Q3 2017			Q2 2017			Q1 2017			Q4 2016			Q3 2016		
	Fair value Net [1]	**Collateral held**	**Net derivative exposure**	Fair value Net [1]	Collateral held	Net derivative exposure	Fair value Net [1]	Collateral held	Net derivative exposure	Fair value Net [1]	Collateral held	Net derivative exposure	Fair value Net [1]	Collateral held	Net derivative exposure
Derivative instruments	**$ (15)**	**$ -**	**$ (15)**	$ (6)	$ 1	$ (7)	$ 2	$ 2	$ -	$ 2	$ 1	$ 1	$ 2	$ 1	$ 1
Less: accrued interest	**1**	**-**	**-**	1	-	-	-	-	-	1	-	-	1	-	-
Total	**$ (16)**	**$ -**	**$ (15)**	$ (7)	$ 1	$ (7)	$ 2	$ 2	$ -	$ 1	$ 1	$ 1	$ 1	$ 1	$ 1

[1] Net reflects contractual netting at default. Net amount equals the gross positive or gross negative fair value as there are no offsetting positions held.

Credit quality

The Bank classifies a loan as impaired when, in the opinion of management, there is objective evidence of impairment as a result of one or more loss events that have occurred after initial recognition of the loan, with a negative impact on the estimated future cash flows of a loan. Objective evidence of impairment includes indications that the borrower is experiencing significant financial difficulties, or a default or delinquency has occurred. Generally, loans are deemed impaired when contractual payments are more than 90 days past due, except for uninsured mortgage loans and credit cards, which are classified as impaired at 180 and 30 days past due respectively. Government of Canada guaranteed loans are classified as impaired at 365 days past due. When mortgage and other loans are impaired, contractual interest is no longer accrued. Contractual interest accruals are resumed once the contractual payments are no longer in arrears and are considered current.

The Bank maintains allowances which, in management's opinion, should be adequate to absorb credit-related losses in MBC's lending portfolio.

Individual allowances are recorded when, due to identified conditions specific to a particular loan, management believes there is objective evidence of impairment as a result of one or more loss events that have occurred after initial recognition of the loan, with a negative impact on the estimated future cash flows of a loan. On a quarterly basis, the Bank assesses whether any objective evidence of impairment exists for any individually assessed loan. The amount of individual allowance is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows discounted at the asset's original effective interest rate and reduced by estimated costs of collection. Expected future cash flows are typically determined in reference to the fair value of collateral security underlying the mortgage and other loans (net of expected costs of realization and any amounts legally required to be paid to the borrowers) or observable market prices for the mortgage and other loans, if available.

A collective allowance is established to cover any impairment that is considered to have occurred in the existing portfolio but cannot be determined on an item-by-item basis. The allowance covers the Bank's core business lines where prudent assessment by the Bank and existing economic and portfolio conditions indicate that losses may be incurred. In making this judgment, management considers observable factors such as economic trends and business conditions, portfolio concentrations, trends in volumes and severity of delinquencies and management's current assessment of factors that may affect the condition of the portfolio. The allowance for losses that are incurred but cannot be determined on an item-by-item basis is calculated using credit risk models that consider probability of default, loss given default and exposure at default.

The provision for loan losses is charged to income by an amount necessary to bring the allowance for credit losses to a level determined appropriate by management.

Mortgages and Other Loans by Risk Category [1]

	Q3 2017	Q2 2017	Q1 2017	Q4 2016	Q3 2016
Mortgage loans					
1 and 2 [2]	**$ 7,261**	$ 7,331	$ 7,444	$ 7,462	$ 7,583
3	**9,688**	9,272	9,079	8,844	8,071
4 or higher	**1,407**	1,509	1,358	1,404	2,081
Total mortgage loans	**$ 18,356**	$ 18,112	$ 17,881	$ 17,710	$ 17,735
Other loans [3]					
1 and 2 [2]	**$ 228**	$ 220	$ 217	$ 213	$ 142
3	**1,024**	1,062	1,071	1,105	940
4 or higher	**482**	445	449	427	688
Total other loans	**$ 1,734**	$ 1,727	$ 1,737	$ 1,745	$ 1,770
Total					
1 and 2 [2]	**$ 7,489**	$ 7,551	$ 7,661	$ 7,675	$ 7,725
3	**10,712**	10,334	10,150	9,949	9,011
4 or higher	**1,889**	1,954	1,807	1,831	2,769
Total mortgage and other loans	**$ 20,090**	$ 19,839	$ 19,618	$ 19,455	$ 19,505

(1) For loans, mortgages and credit card, an internal risk rating is assigned ranging from “1 and 2 – little or no risk” to “8 – doubtful.” The internal risk ratings reflect the credit quality of the lending assets. All lending assets that MBC originates are assigned a risk rating.

(2) The internal risk ratings reflect the credit quality of the lending assets. Insured loans and loans with strong collateral are primarily included in this risk category. Presently, rating 1 criterion is not applicable to the Bank, therefore, ratings 1 & 2 have been combined.

(3) Other loans include credit card.

Gross Credit Exposure [10]

	Q3 2017						Q2 2017					
	Drawn [1]	Undrawn [2]	Other off-balance sheet [3]	Debt securities [4]	OTC [5]	Total	Drawn [1]	Undrawn [2]	Other off-balance sheet [3]	Debt securities [4]	OTC [5]	Total
By geographic location												
Country [6]												
Canada	$ -	$ -	$ -	$ 278	$ -	$ 278	$ -	$ -	$ -	$ 109	$ -	$ 109
United States	-	-	-	119	-	119	-	-	-	138	-	138
Other	-	-	-	30	-	30	-	-	-	31	-	31
Province [6]												
Canada												
Ontario	$ 7,548	$ 4,008	$ 8	$ 369	$ -	$ 11,933	$ 7,447	$ 3,918	$ 7	$ 9	$ -	$ 11,381
British Columbia	2,904	1,606	17	-	-	4,527	2,862	1,489	17	-	-	4,368
Alberta	2,599	1,273	2	-	-	3,874	2,552	1,138	2	-	-	3,692
Quebec	4,752	1,573	3	105	-	6,433	4,706	1,576	3	6	-	6,291
Saskatchewan	809	349	1	-	-	1,159	806	335	1	-	-	1,142
Manitoba	412	183	-	-	-	595	411	183	-	-	-	594
Atlantic provinces	1,080	413	1	111	-	1,605	1,069	393	1	48	-	1,511
Territories	2	-	-	-	-	2	1	-	-	-	-	1
Total exposure	$ 20,106	$ 9,405	$ 32	$ 1,012	$ -	$ 30,555	$ 19,854	$ 9,032	$ 31	$ 341	$ -	$ 29,258
By counterparty												
Manulife One	$ 15,519	$ 8,570	$ -	$ -	$ -	$ 24,089	$ 15,413	$ 8,471	$ -	$ -	$ -	$ 23,884
Residential mortgages	2,753	418	-	-	-	3,171	2,628	188	-	-	-	2,816
Financial institution [7]	-	-	-	726	-	726	-	-	-	99	-	99
Corporate	333	-	-	113	-	446	308	-	-	131	-	439
Personal loans	1,501	417	-	-	-	1,918	1,505	373	-	-	-	1,878
Sovereign [8]	-	-	-	132	-	132	-	-	-	59	-	59
Other [9]	-	-	32	41	-	73	-	-	31	52	-	83
Total exposure	$ 20,106	$ 9,405	$ 32	$ 1,012	$ -	$ 30,555	$ 19,854	$ 9,032	$ 31	$ 341	$ -	$ 29,258
By contractual maturity												
Within 1 year	$ 1,984	$ 1,128	$ -	$ 847	$ -	$ 3,959	$ 1,711	$ 887	$ -	$ 150	$ -	$ 2,748
1 to 5 years	4,295	-	-	165	-	4,460	4,209	-	-	191	-	4,400
Over 5 years	19	-	-	-	-	19	33	-	-	-	-	33
No specific maturity	13,808	8,277	32	-	-	22,117	13,901	8,145	31	-	-	22,077
Total exposure	$ 20,106	$ 9,405	$ 32	$ 1,012	$ -	$ 30,555	$ 19,854	$ 9,032	$ 31	$ 341	$ -	$ 29,258

(1) The amount of credit risk exposure resulting from loans advanced to a borrower. The exposure amounts presented in the above tables are gross of allowance for credit losses.

(2) The amount of credit risk exposure resulting from the unutilized portion of an authorized credit line or unfunded committed credit facility. These commitments have no fixed maturity dates.

(3) Other off-balance sheet items include letters of credit and indemnities.

(4) Includes short-term debt securities classified as cash equivalents.

(5) Includes OTC derivatives.

(6) Geographic information is based upon address of property mortgaged for mortgage loans and based upon residence of borrower for other loans.

(7) Includes exposures to deposit taking institutions, contractual institutions and investment institutes.

(8) Includes exposures to governments, central banks and certain public sector entities.

(9) Other includes securitized investments in bonds and Residential Mortgage Backed Securities.

(10) Gross credit risk exposure is before credit risk mitigants. This table excludes equity exposures.

Gross Credit Exposure [10] (Continued)

	Q1 2017						Q4 2016					
	Drawn [1]	Undrawn [2]	Other off-balance sheet [3]	Debt securities[4]	OTC [5]	Total	Drawn [1]	Undrawn [2]	Other off-balance sheet [3]	Debt securities[4]	OTC [5]	Total
By geographic location												
Country [6]												
Canada	$ -	$ -	$ -	$ 67	$ 2	$ 69	$ -	$ -	$ -	$ 66	$ 2	$ 68
United States	-	-	-	139	-	139	-	-	-	123	-	123
Other	-	-	-	32	-	32	-	-	-	33	-	33
Province [6]												
Canada												
Ontario	$ 7,318	$ 3,700	$ 10	$ 9	$ -	$ 11,037	$ 7,249	$ 3,566	$ 10	$ 4	$ -	$ 10,829
British Columbia	2,851	1,429	18	-	-	4,298	2,830	1,391	20	-	-	4,241
Alberta	2,531	1,154	3	-	-	3,688	2,525	1,086	3	-	-	3,614
Quebec	4,646	1,571	4	7	-	6,228	4,574	1,554	4	9	-	6,141
Saskatchewan	810	337	1	-	-	1,148	810	333	1	-	-	1,144
Manitoba	406	177	-	-	-	583	404	168	-	-	-	572
Atlantic provinces	1,072	373	1	7	-	1,453	1,080	369	1	7	-	1,457
Territories	1	-	-	-	-	1	-	-	-	-	-	-
Total exposure	$ 19,635	$ 8,741	$ 37	$ 261	$ 2	$ 28,676	$ 19,472	$ 8,467	$ 39	$ 242	$ 2	$ 28,222
By counterparty												
Manulife One	$ 15,310	$ 8,254	$ -	$ -	$ -	$ 23,564	$ 15,264	$ 8,039	$ -	$ -	$ -	$ 23,303
Residential mortgages	2,511	212	-	-	-	2,723	2,393	168	-	-	-	2,561
Financial institution [7]	-	-	-	50	2	52	-	-	-	50	2	52
Corporate	296	-	-	133	-	429	289	-	-	116	-	405
Personal loans	1,518	275	-	-	-	1,793	1,526	260	-	-	-	1,786
Sovereign [8]	-	-	-	18	-	18	-	-	-	13	-	13
Other [9]	-	-	37	60	-	97	-	-	39	63	-	102
Total exposure	$ 19,635	$ 8,741	$ 37	$ 261	$ 2	$ 28,676	$ 19,472	$ 8,467	$ 39	$ 242	$ 2	$ 28,222
By contractual maturity												
Within 1 year	$ 1,367	$ 791	$ -	$ 62	$ 1	$ 2,221	$ 1,219	$ 662	$ -	$ 51	$ 2	$ 1,934
1 to 5 years	4,331	-	-	192	-	4,523	4,206	-	-	172	-	4,378
Over 5 years	33	-	-	7	1	41	41	-	-	19	-	60
No specific maturity	13,904	7,950	37	-	-	21,891	14,006	7,805	39	-	-	21,850
Total exposure	$ 19,635	$ 8,741	$ 37	$ 261	$ 2	$ 28,676	$ 19,472	$ 8,467	$ 39	$ 242	$ 2	$ 28,222

(1) The amount of credit risk exposure resulting from loans advanced to a borrower. The exposure amounts presented in the above tables are gross of allowance for credit losses.

(2) The amount of credit risk exposure resulting from the unutilized portion of an authorized credit line or unfunded committed credit facility. These commitments have no fixed maturity dates.

(3) Other off-balance sheet items include letters of credit and indemnities.

(4) Includes short-term debt securities classified as cash equivalents.

(5) Includes OTC derivatives.

(6) Geographic information is based upon address of property mortgaged for mortgage loans and based upon residence of borrower for other loans.

(7) Includes exposures to deposit taking institutions, contractual institutions and investment institutes.

(8) Includes exposures to governments, central banks and certain public sector entities.

(9) Other includes securitized investments in bonds and Residential Mortgage Backed Securities.

(10) Gross credit risk exposure is before credit risk mitigants. This table excludes equity exposures.

Gross Credit Exposure [10] (Continued)

	Q3 2016					
	Drawn [1]	Undrawn [2]	Other off-balance sheet [3]	Debt securities[4]	OTC [5]	Total
By geographic location						
Country [6]						
Canada	$ -	$ -	$ -	$ 73	$ 2	$ 75
United States	-	-	-	112	-	112
Other	-	-	-	25	-	25
Province [6]						
Canada						
Ontario	$ 7,292	$ 3,430	$ 9	$ 4	$ -	$ 10,735
British Columbia	2,842	1,334	20	-	-	4,196
Alberta	2,546	1,063	3	-	-	3,612
Quebec	4,523	1,509	4	7	-	6,043
Saskatchewan	827	330	-	-	-	1,157
Manitoba	404	165	-	7	-	576
Atlantic provinces	1,089	365	1	6	-	1,461
Territories	-	-	-	-	-	-
Total exposure	$ 19,523	$ 8,196	$ 37	$ 234	$ 2	$ 27,992
By counterparty						
Manulife One	$ 15,351	$ 7,895	$ -	$ -	$ -	$ 23,246
Residential mortgages	2,336	63	-	-	-	2,399
Financial institution [7]	-	-	-	49	2	51
Corporate	288	-	-	98	-	386
Personal loans	1,548	238	-	-	-	1,786
Sovereign [8]	-	-	-	20	-	20
Other [9]	-	-	37	67	-	104
Total exposure	$ 19,523	$ 8,196	$ 37	$ 234	$ 2	$ 27,992
By contractual maturity						
Within 1 year	$ 1,104	$ 518	$ -	$ 52	$ 2	$ 1,676
1 to 5 years	4,135	-	-	182	-	4,317
Over 5 years	33	-	-	-	-	33
No specific maturity	14,251	7,678	37	-	-	21,966
Total exposure	$ 19,523	$ 8,196	$ 37	$ 234	$ 2	$ 27,992

(1) The amount of credit risk exposure resulting from loans advanced to a borrower. The exposure amounts presented in the above tables are gross of allowance for credit losses.
(2) The amount of credit risk exposure resulting from the unutilized portion of an authorized credit line or unfunded committed credit facility. These commitments have no fixed maturity dates.
(3) Other off-balance sheet items include letters of credit and indemnities.
(4) Includes short-term debt securities classified as cash equivalents.
(5) Includes OTC derivatives.
(6) Geographic information is based upon address of property mortgaged for mortgage loans and based upon residence of borrower for other loans.
(7) Includes exposures to deposit taking institutions, contractual institutions and investment institutes.
(8) Includes exposures to governments, central banks and certain public sector entities.
(9) Other includes securitized investments in bonds and Residential Mortgage Backed Securities.
(10) Gross credit risk exposure is before credit risk mitigants. This table excludes equity exposures.

Loan Impairment by Counterparty and by Geographic Area

	Q3 2017					Q2 2017					Q1 2017				
	Past-due but not impaired					Past-due but not impaired					Past-due but not impaired				
	Less than 90 days	90 days and greater	Total past-due but not impaired	Gross impaired loans	Total past due or impaired	Less than 90 days	90 days and greater	Total past-due but not impaired	Gross impaired loans	Total past due or impaired	Less than 90 days	90 days and greater	Total past-due but not impaired	Gross impaired loans	Total past due or impaired
By geographic location															
Province [1]															
Canada															
Ontario	**$ 19**	**$ 3**	**$ 22**	**$ 2**	**$ 24**	$ 10	$ 1	$ 11	$ 3	$ 14	$ 13	$ 1	$ 14	$ 2	$ 16
British Columbia	**10**	**3**	**13**	**1**	**14**	4	2	6	1	7	3	2	5	1	6
Alberta	**7**	**4**	**11**	**3**	**14**	9	2	11	3	14	7	2	9	3	12
Quebec	**18**	**7**	**25**	**12**	**37**	12	6	18	14	32	18	6	24	14	38
Saskatchewan	**3**	**2**	**5**	**2**	**7**	2	1	3	1	4	2	1	3	2	5
Manitoba	**1**	**-**	**1**	**1**	**2**	1	1	2	-	2	2	-	2	-	2
Atlantic provinces	**4**	**2**	**6**	**3**	**9**	3	2	5	3	8	6	2	8	4	12
Total	**$ 62**	**21**	**$ 83**	**$ 24**	**$ 107**	$ 41	$ 15	$ 56	$ 25	$ 81	$ 51	$ 14	$ 65	$ 26	$ 91
By counterparty															
Manulife One	**$ 35**	**$ 16**	**$ 51**	**$ 18**	**$ 69**	$ 24	$ 10	$ 34	$ 20	$ 54	$ 26	$ 10	$ 36	$ 21	$ 57
Residential mortgages	**21**	**5**	**26**	**4**	**30**	15	5	20	3	23	21	4	25	3	28
Personal loans	**6**	**-**	**6**	**2**	**8**	2	-	2	2	4	4	-	4	2	6
Total	**$ 62**	**$ 21**	**$ 83**	**$ 24**	**$ 107**	$ 41	$ 15	$ 56	$ 25	$ 81	$ 51	$ 14	$ 65	$ 26	$ 91

	Q4 2016					Q3 2016				
	Past-due but not impaired					Past-due but not impaired				
	Less than 90 days	90 days and greater	Total past-due but not impaired	Gross impaired loans	Total past due or impaired	Less than 90 days	90 days and greater	Total past-due but not impaired	Gross impaired loans	Total past due or impaired
By geographic location										
Province [1]										
Canada										
Ontario	$ 9	$ 2	$ 11	$ 3	$ 14	$ 15	$ 3	$ 18	$ 3	$ 21
British Columbia	5	2	7	1	8	4	2	6	2	8
Alberta	6	4	10	2	12	8	3	11	3	14
Quebec	19	7	26	14	40	17	8	25	13	38
Saskatchewan	3	1	4	2	6	2	2	4	1	5
Manitoba	1	-	1	-	1	2	-	2	-	2
Atlantic provinces	5	4	9	4	13	5	4	9	4	13
Total	$ 48	$ 20	$ 68	$ 26	$ 94	$ 53	$ 22	$ 75	$ 26	$ 101
By counterparty										
Manulife One	$ 25	$ 16	$ 41	$ 20	$ 61	$ 27	$ 16	$ 43	$ 20	$ 63
Residential mortgages	18	4	22	4	26	22	6	28	3	31
Personal loans	5	-	5	2	7	4	-	4	3	7
Total	$ 48	$ 20	$ 68	$ 26	$ 94	$ 53	$ 22	$ 75	$ 26	$ 101

[1] Based upon address of property mortgaged for mortgage loans and residence of borrowers for other loans.

Allowances by Counterparty and by Geographic Area

	Q3 2017 Allowance			Q2 2017 Allowance			Q1 2017 Allowance			Q4 2016 Allowance			Q3 2016 Allowance		
	Individual	Collective [2]	Total	Individual	Collective [2]	Total	Individual	Collective [2]	Total	Individual	Collective [2]	Total	Individual	Collective [2]	Total
By geographic location															
Country [1]															
Canada	$ -	$ 11	$ 11	$ -	$ 11	$ 11	$ -	$ 12	$ 12	$ -	$ 12	$ 12	$ -	$ 13	$ 13
Province [1]															
Canada															
Ontario	$ -	$ -	$ -	$ -	$ -	$ -	$ 1	$ -	$ 1	$ 1	$ -	$ 1	$ 1	$ -	$ 1
Quebec	3	-	3	3	-	3	3	-	3	3	-	3	3	-	3
Atlantic provinces	2	-	2	1	-	1	1	-	1	1	-	1	1	-	1
Total	$ 5	$ 11	$ 16	$ 4	$ 11	$ 15	$ 5	$ 12	$ 17	$ 5	$ 12	$ 17	$ 5	$ 13	$ 18
By counterparty															
Manulife One	$ 4	$ -	4	$ 3	$ -	$ 3	$ 4	$ -	$ 4	$ 4	$ -	$ 4	$ 4	$ -	$ 4
Personal loans	1	-	1	1	-	1	1	-	1	1	-	1	1	-	1
Other	-	11	11	-	11	11	-	12	12	-	12	12	-	13	13
Total	$ 5	$ 11	$ 16	$ 4	$ 11	$ 15	$ 5	$ 12	$ 17	$ 5	$ 12	$ 17	$ 5	$ 13	$ 18

[1] Based upon address of property mortgaged for mortgage loans and residence of borrowers for other loans.

[2] Allowance has been calculated based on the portfolio and is not split by province.

Allowances for Impairment on Mortgages and Loans and Provision for Credit Losses[1]

	Q3 2017 Allowance			Q2 2017 Allowance			Q1 2017 Allowance			Q4 2016 Allowance			Q3 2016 Allowance			Fiscal 2016 Allowance		
	Individual	Collective	Total	Individual	Collective	Total	Individual	Collective	Total	Individual	Collective	Total	Individual	Collective	Total	Individual	Collective	Total
Balance, beginning of period	$ 4	$ 11	$ 15	$ 5	$ 12	$ 17	$ 5	$ 12	$ 17	$ 5	$ 13	$ 18	$ 6	$ 13	$ 19	$ 5	$ 13	$ 18
Impairment loss for the period:																		
Write-offs	(1)	-	(1)	(1)	-	(1)	(2)	-	(2)	(1)	-	(1)	(3)	-	(3)	(5)	-	(5)
Provision for credit losses	2	-	2	-	(1)	(1)	2	-	2	1	(1)	-	2	-	2	6	(3)	3
Balance, end of period	$ 5	$ 11	$ 16	$ 4	$ 11	$ 15	$ 5	$ 12	$ 17	$ 5	$ 12	$ 17	$ 5	$ 13	$ 18	$ 6	$ 10	$ 16

[1] Provision represents charge to Consolidated Statements of Income for the period. It has been calculated based on the portfolio and is not split by counterparties.

Market Risk

Market risk is the risk of loss resulting from market price volatility, interest rate changes and adverse foreign currency rate movements. Market price volatility relates to changes in the prices of publicly traded equities and to impacts of interest rate movements on the lending portfolio.

Governance structure

The Board of Directors annually review and approve the capital, liquidity, foreign exchange, interest rate risk, pledging and investment policies. The Board of Directors have ultimately delegated the responsibility for the strategic management of market, interest rate and liquidity risks to ALCO. The ALCO risk management strategy addresses the interest rate risk arising between asset returns and supporting liabilities and is designed to keep potential losses stemming from these risks within acceptable limits. Actual investment positions and risk exposures are monitored to ensure policy guidelines and limits are adhered to. Positions are reported to ALCO on a monthly basis and to MFC's Global ALCO on a quarterly basis. The Bank invests in common equities based on limits set within the Investment Policy.

Available-for-sale securities[6]

MBC holds equity and debt instruments that have been classified as available-for-sale ("AFS") based on management's intentions. As at September 30, 2017 the Bank held $243 million (December 31, 2016 – $232 million) of publicly traded AFS equity securities. The AFS equity securities are measured initially at their fair values plus directly attributable transaction costs, and are subsequently presented in the Consolidated Statements of Financial Position at their fair values using published bid prices.

Unrealized gains and losses on AFS securities are recorded, net of taxes, in accumulated other comprehensive income ("AOCI"). Unrealized foreign currency translation gains and losses on monetary AFS securities are recorded immediately in income. Premiums or discounts on purchases of AFS debt securities are amortized over the terms to maturity on an effective interest rate basis. When AFS securities are sold, the unrealized gains (net of unrealized losses) are transferred from AOCI to the Consolidated Statements of Income. As at September 30, 2017, the total pre-tax unrealized gains recorded in AOCI related to AFS securities was $13 million (December 31, 2016 - $16 million). The cumulative realized gains arising from the sale of AFS securities for the three months ended September 30, 2017 was $3 million (for the three months ended September 30, 2016 – $5 million) and for the nine months ending September 30, 2017 was $17 million (for the nine months ended September 30, 2016 - $6 million).

[6] Realized gains (losses) are net of other than temporary impairment charges on AFS securities.

MBC holds mortgage backed securities ("MBS") and asset backed securities ("ABS"), which are classified as AFS debt investments, and recorded at market values. MBC manages securitization exposures related to short-term and long-term investments to approved limits and rating requirements specified by investment policy guidelines. These securitization positions are managed using a combination of market standard systems and third-party data providers to monitor performance data and manage risks associated with the investments. All securitization exposures are included in the banking book. All of the Bank's investments in securitizations held as at September 30, 2017 and December 31, 2016 are in National Housing Act Mortgage Backed Securities ("NHA MBS") rated AAA by an External Credit Assessment Institutions ("ECAI"). Refer to the liquidity risk section of this document for quantitative disclosures of the securitization exposures in the banking book.

For debt issues, the ECAI ratings are used for managing market risk and, if not available, MLI's internal risk ratings are used. When ratings from more than one approved agency are available for a single issue, the priority sequence of rating agencies is Standard & Poor's ("S&P"), Moody's Investor Service, DBRS, Fitch Rating Services, and the parent company's internal risk rating.

Interest rate risk

Interest rate risk is identified using a variety of techniques and measures that are primarily based on projecting asset and liability cash flows under a range of current and future interest rate and market return scenarios. MBC uses traditional asset-liability management techniques as well as quantitative methods to stress test the asset-liability portfolio.

MBC applies monthly sensitivity analysis to specifically assess interest rate risk. The results of the analyses are reviewed by ALCO to determine whether they are within prescribed limits for sensitivity of net interest income to changes in the yield curve. The following table shows the sensitivity of MBC's consolidated pre-tax net interest income to interest rate risk over the next 12 months.

Interest Rate Risk [7]

	Q3 2017 [(1)]	Q2 2017 [(1)]	Q1 2017 [(1)]	Q4 2016 [(1)]	Q3 2016 [(1)]
100 basis point rate increase	**$ 9**	$ 10	$ 10	$ 13	$ 16
200 basis point rate increase	**18**	20	21	26	31
100 basis point rate decrease	**(9)**	(5)	(5)	(6)	(8)
200 basis point rate decrease [(2)]	**(9)**	(5)	(5)	(6)	(8)

[(1)] The interest sensitivity assumes that the Bank moves all bank administered rates for lending and deposits directly with market rates. The Bank has the ability to mitigate margin impact through its administered rates.

[(2)] The floor of zero on government rates and corporate spreads causes the 200 basis point decrease to have the same impact as the 100 basis point decrease due to the current low interest rate environment.

Derivatives are used to manage interest rate risk. To mitigate the unique risks associated with the use of derivatives, the Bank has specific risk management policies and processes. The policies include limits on the maximum exposure on derivative transactions, authorized types of derivatives and derivative applications, delegated authorization limits for specific personnel and collateral management. The policies also require pre-approval of all derivative application strategies and regular monitoring of the effectiveness of the strategies employed.

[7] A parallel movement in interest rates includes a change in government, swap and corporate rates, with a floor of zero on government rates and corporate spreads.

Liquidity Risk

Liquidity risk is the risk of not having access to sufficient funds or liquid assets to meet both expected and unexpected cash and collateral demands.

At least annually, the Board of Directors review and approve the Liquidity Management Policy and review the Liquidity Contingency Plan, which ensures the Bank has the infrastructure and control functions in place to meet expected and unexpected liquidity obligations. Risk tolerances and limits are approved by the Board of Directors and define the maximum level of risk the Bank is willing to take regarding liquidity risks. The Liquidity Contingency Plan outlines various liquidity statuses and includes procedures, action plans, communication requirements and roles and responsibilities under each liquidity status.

Liquidity stress testing is completed on a monthly basis to monitor and identify sources of potential liquidity strain, and to ensure current exposures remain in accordance with the Bank's established liquidity risk tolerance and limits. In addition to the Bank's internal metrics, the Bank must also comply with OSFI's Liquidity Adequacy Requirements ("LAR") Guideline, which includes the Net Cumulative Cash Flow ("NCCF") and the BCBS prescribed Liquidity Coverage Ratio ("LCR"). All liquidity stress testing is performed by the Bank's Treasury department on a monthly basis and is reported to ALCO and OSFI as required. Key assumptions of the internal stress tests are reviewed and approved on an annually basis by ALCO to ensure that they remain reasonable and appropriate.

To meet anticipated liquidity needs in both stable and stressed conditions, the Bank's Treasury department actively manages liquidity risk. The liquidity risk management processes are designed to enable the payment of the Bank's obligations as they come due, under both normal and adverse circumstances. Liquid assets include unencumbered assets that are marketable, can be pledged as security for borrowings, and can be converted to cash in a timeframe that meets liquidity requirements. The Bank's liquid assets as at September 30, 2017 were $4.5 billion (19 per cent of total assets) compared to $4.2 billion as at December 31, 2016 (19 per cent of total assets).

Both the minimum NCCF and LCR[8] regulatory targets were met by the Bank during the three months ended September 30, 2017.

Governance structure

The Board of Directors have the ultimate oversight responsibility for liquidity risk management of the Bank. The liquidity management responsibilities are delegated to the Chief Executive Officer ("CEO") by the Board of Directors, with the day to day liquidity management of the Bank being delegated to the Bank's Treasurer and oversight of the Bank's liquidity risk management framework delegated to the CRO. The Bank's Treasurer is responsible for providing comprehensive reporting to ALCO to assist the committee in fulfilling its liquidity risk oversight responsibilities.

[8] In January 2013, the BCBS released its final rules for LCR, with phased in timelines for compliance, starting with a minimum of 60% coverage in 2015 and increasing by 10% annually to 100% in 2019. However, OSFI has required 100% coverage effective January 1, 2015, which has been classified within the new OSFI Liquidity Adequacy Requirements ("LAR") guideline finalized on May 31, 2014.

Funding

The Bank has developed and continues to develop strategies to diversify funding sources in terms of funding channels and products, taking into consideration the level of reliance on individual funding sources. Diversification of funding is continually monitored and reported to ALCO and the Board of Directors. The Bank's ability to securitize high quality residential mortgage loans has provided a key source of diversified funding and contingent liquidity. Securitization funding provides the Bank with long-term funding at very attractive interest rates. Refer to the Securitization section below for details on the securitization programs.

In 2010, the Bank created a wholly owned subsidiary, MTC, which has been a strong source of deposit funding totalling $1.5 billion as at September 30, 2017 (December 31, 2016 - $1.5 billion).

Securitization

The Bank acts in the capacity of sponsor, originator, servicer and the provider of credit enhancements for its securitization programs. Mortgage loans purchased by the Bank from a third party and securitized in the NHA MBS program continue to be serviced by a third party mortgage servicer. In addition, the Bank also invests in short and long-term investment grade asset-backed securities. The sections below provide an overview of the Bank's securitization programs.

Manulife One securitization programs

MBC has created two programs to securitize Manulife One accounts; PCMT and PCMT II ("the programs"). Manulife One accounts insured by CMHC are securitized under the PCMT program and uninsured Manulife One accounts are securitized under the PCMT II program.

The PCMT and PCMT II securitization programs diversify MBC's funding capabilities by providing an additional source of funding. The availability of multiple funding channels enhances MBC's ability to obtain low cost funds and provides increased liquidity. Eligibility criteria are defined in the program documentation. These accounts are pooled by MBC and undivided co-ownership interests in the receivables of the pool are then sold to the programs in exchange for cash. The programs fund the purchase of the co-ownership interests by issuing term notes. The pool of Manulife One accounts supporting the notes is legally isolated from MBC's assets and the cash flows generated from the pool are used to provide interest and principal payments on the term notes. MBC's continuing involvement includes servicing the pool of Manulife One accounts and performing an administrative role for the programs. MBC also provides loans to the programs to pay for upfront transaction costs. These loans are subordinate to all notes issued by PCMT and PCMT II.

PCMT

MBC provides credit enhancements to PCMT in the form of cash reserve accounts in the amount of $8 million (December 31, 2016 – $8 million), maintaining an asset pool balance in excess of notes issued, and excess spread consisting of excess cash receipts that are only attributable to MBC after the periodic obligations of PCMT have been met. The restricted cash will be drawn upon only in the event of insufficient cash flows from the underlying pool to satisfy the obligations of PCMT.

During the three month and nine month period ended September 30, 2017 and year ended December 31, 2016, no secured term notes have been issued under PCMT. As at September 30, 2017, term notes of $1.5 billion (December 31, 2016 - $1.5 billion) are outstanding.

PCMT II

MBC provides credit enhancements to PCMT II in the form of an asset pool balance in excess of notes issued, credit enhancement of the ownership interest, and excess spread consisting of excess cash receipts that are only attributable to MBC after the periodic obligations of PCMT II have been met. No cash reserve accounts have been funded for PCMT II. The cash reserve account for PCMT II will only be funded if a cash reserve event occurs as defined by the series agreements.

During the three month and nine month period ended September 30, 2017, a $250 million secured term note was issued. As at September 30, 2017, term notes worth $500 million (December 31, 2016 – $250 million) are outstanding.

NHA MBS securitization program

MBC securitizes insured amortizing Canadian residential mortgage loans through the creation of MBS pools under the NHA MBS program and either holds them on the Consolidated Statements of Financial Position or sells them to third party investors. MBC expects to continue to issue NHA MBS in volumes consistent with the growth of insurable mortgage assets, subject to CMHC allocations of guarantees for new market NHA MBS.

CMB securitization program

The CMB program represents the lowest cost funding alternative for the Bank's insured amortizing mortgage products. CMB issuances are backed by NHA MBS pools and the payment structure consists of semi-annual coupon payments and a bullet payment at maturity. At issuance of CMB, a secured borrowing liability is recorded and the related residential mortgages backing the CMB remain on the Bank's Consolidated Statements of Financial Position.

Securitization accounting

MBC's internal securitization programs do not meet derecognition requirements. Manulife One accounts securitized through PCMT or PCMT II remain on MBC's Consolidated Statements of Financial Position as the Bank retains the pre-payment and interest rate risk associated with these accounts, which represents substantially all of the risks and rewards associated with the transferred assets. These transactions are accounted for as secured financing transactions and MBC continues to recognize the accounts as assets and records a secured borrowing liability (i.e. notes payable, which is accounted for at amortized cost). Interest income on the assets and interest expense on the notes payable are recorded using the effective interest rate method. Transactions under the PCMT and PCMT II programs are consolidated with MBC.

Residential mortgage loans securitized through the NHA MBS program also remain on MBC's Consolidated Statements of Financial Position as the Bank retains the pre-payment, interest rate and other price risks. MBC also retains the interest spread between the securities and the underlying mortgage assets. If MBC creates an NHA MBS security without selling it, a liability is not recognized. All securitization exposures are included in the banking book.

The Bank also purchases CMHC insured multi-unit residential mortgages from third party originators with negligible pre-payment and credit risk. These mortgages are pooled within the NHA MBS program and subsequently sold into the CMB program. The transaction structure meets specific criteria and qualifies for balance sheet derecognition with an upfront gain recorded on the sale of mortgages. The Bank retains a residual interest, which is recorded as securitization retained interest on the Bank's Consolidated Statements of Financial Position.

Capital treatment for securitization exposures

As discussed within the Capital Management section of this document, MBC utilizes the Standardized Approach to assign risk weightings to assets, including mortgages in the NHA MBS and PCMT programs that do not qualify for derecognition as detailed above, as well as securitization exposures resulting from short-term and long-term investments. The Bank assigns credit assessments from OSFI authorized ECAI.

Summary of Securitized Assets [1]

Securitization program	**Q3 2017**	Q2 2017	Q1 2017	Q4 2016	Q3 2016
Manulife One securitization					
Securitized mortgages - PCMT[2]	**$ 1,500**	$ 1,500	$ 1,500	$ 1,500	$ 1,500
Securitized mortgages - PCMT II[3]	**500**	500	250	250	250
Restricted cash[4]	**8**	8	8	8	8
Total Manulife One securitization	**$ 2,008**	$ 2,008	$ 1,758	$ 1,758	$ 1,758
NHA MBS securitization					
NHA MBS unsold [5]	**$ 1,392**	$ 1,545	$ 1,517	$ 1,545	$ 1,588
Restricted cash[6]	**26**	26	26	19	19
Total NHA MBS securitization	**$ 1,418**	$ 1,571	$ 1,543	$ 1,564	$ 1,607
Sold to CMB	**1,403**	1,199	1,213	1,018	905
Total	**$ 4,829**	$ 4,778	$ 4,514	$ 4,340	$ 4,270

Investment in securitized assets	**Q3 2017**	Q2 2017	Q1 2017	Q4 2016	Q3 2016
NHA MBS	**$ 41**	$ 52	$ 60	$ 63	$ 67

(1) These are securitized mortgages.

(2) Remaining balance comprises the $1.5 billion Series 2011-1 term note which is supported by a pool of insured Manulife One accounts. The note is set to mature in the fourth quarter of 2021.

(3) Remaining balance comprises the $500 million Series 2016-1 term note which is supported by a pool of uninsured Manulife One accounts. The note is set to mature in the second quarter of 2022. Under the terms of the Series 2016-1 notes, additional collateral must also be provided to the noteholder as added credit protection.

(4) Series 2011-1 maintains a cash reserve to provide the noteholder added credit protection.

(5) When a security is created but remains unsold, no liability is recognized.

(6) The NHA MBS program requires issuers to maintain additional cash reserves within the NHA MBS principal and interest custodial account to cover deposits of unscheduled principal payments.

During the third quarter of 2017, $89 million (third quarter of 2016 – nil) of insured multi-unit residential mortgages were derecognized from the Consolidated Financial Statements, and securitization retained interests totalling $8 million are recorded as Other Assets.

Operational Risk

Operational risk is the risk of loss resulting from inadequate or failed internal processes, systems failures, human performance failures or from external events.

Key risk factors

Operational risk is inherent in all of MBC's business activities and encompasses a broad range of risks including regulatory compliance failures, legal disputes, technology failures, business interruption, information security and privacy failures, ineffective human resource management, processing errors, modeling errors, ineffective business integration, theft and fraud and damage to physical assets. Exposures can take the form of financial losses, regulatory sanctions, loss of competitive positioning and damage to reputation. Operational risk is embedded in all of the practices used to manage other risks such as credit risk, market risk and liquidity risk. If not managed effectively, operational risk can impact the ability to manage these key risks.

Risk management strategy

MBC's Operational Risk Management Policy and Framework outline the governance structure, risk appetite, the level of risk tolerance, and set the foundation for mitigating operational risks. This base is strengthened by the establishment of appropriate internal controls and systems and by seeking to retain trained and competent people throughout the organization. Risk management programs have been established across functional business areas for specific operational risks that could materially impact the ability to do business or negatively impact the reputations of MBC, MTC, PCMT and PCMT II.

Business area managers are accountable for the day-to-day management of the operational risks inherent in their operations. Business and functional areas perform risk control self-assessments to identify, document and assess inherent operational risks and the effectiveness of internal controls. The Bank's CRO and the Bank's Operational Risk Management team provide independent oversight of risk taking and risk mitigation activities across the enterprise. Key risk indicators are monitored and provide early warnings of emerging control issues. Business area managers proactively modify procedures where emerging control issues are identified.

Capital Management

The Bank's Capital Management Framework provides the policies and processes for defining, measuring and strategically managing capital in a co-ordinated consistent manner. Within this framework, the Bank utilizes an internal capital adequacy assessment process, which forms strategies for achieving capital targets in a manner consistent with the Bank's risk assessments and business plans. The capital management framework together with related policies, enables the Bank to review its risk profile from a regulatory capital viewpoint with the intent of ensuring that capital levels:

- Remain sufficient to support the Bank's risk profile and outstanding commitments;
- Exceed minimum regulatory capital requirements by an acceptable margin;
- Are capable of withstanding a severe but plausible economic downturn stress scenario; and
- Remain consistent with strategic and operational goals, shareholder and rating agency expectations.

In the assessment of capital adequacy, the Bank adopts regulatory capital definitions and measures. To maintain or adjust the capital structure, the Bank may issue new shares or subordinated debt, adjust the dividend payment to its shareholders, or return capital to shareholders.

The Board of Directors approve the capital plan annually. The Capital Management Committee, which is comprised of executive members of the management team, meets on a regular basis in order to provide oversight of operational capital management. This includes reviews and recommendations of capital management policies for approval by the Board of Directors.

The adequacy of capital is assessed by considering capital requirements necessary to offset unexpected losses arising from credit risk, market risk and operational risk. The minimum regulatory capital that the Bank is required to hold is determined by OSFI. MBC's approach to capital management is aligned to support its business model and strategic direction.

Regulatory capital

Capital levels for banks are regulated pursuant to guidelines issued by OSFI, which are based on standards issued by the Bank for International Settlements. In December 2010, the BCBS issued "Basel III: A global regulatory framework for more resilient banks and banking systems" ("Basel III"), which focuses on improving the banking industry's ability to absorb shocks from financial and economic stress through increased quality and quantity of capital requirements, measures to reduce build-up of excessive leverage and pro-cyclicality in the banking sector, and new liquidity standards. Capital instruments issued by the Bank are required to meet qualifying criteria before inclusion in the relevant capital category.

Effective January 1, 2013, the Bank implemented OSFI's CAR guideline, which reflect the Basel III capital requirements.

Basel III Regulatory Capital (Transitional & All-in Basis)

	Q3 2017		Q2 2017		Q1 2017		Q4 2016		Q3 2016	
	Transitional Basis[1]	**All-in Basis[2]**	**Transitional Basis[1]**	**All-in Basis[2]**	**Transitional Basis[1]**	**All-in Basis[2]**	**Transitional Basis[1]**	**All-in Basis[2]**	**Transitional Basis[1]**	**All-in Basis[2]**
Common Equity Tier 1 capital: instruments, reserves and regulatory adjustments										
1 Directly issued qualifying common share capital plus related stock surplus[3]	**$ 374**	**$ 374**	$ 374	$ 374	$ 374	$ 374	$ 374	$ 374	$ 339	$ 339
2 Retained earnings[4]	**809**	**809**	785	785	767	767	744	744	727	727
3 Accumulated other comprehensive income (and other reserves)	**9**	**9**	6	6	12	12	12	12	11	11
28 Total regulatory adjustments to Common Equity Tier 1	**(9)**	**(11)**	(9)	(11)	(7)	(9)	(6)	(10)	(4)	(7)
29 Common Equity Tier 1 capital (CET1)	**$ 1,183**	**$ 1,181**	$ 1,156	$ 1,154	$ 1,146	$ 1,144	$ 1,124	$ 1,120	$ 1,073	$ 1,070
Additional Tier 1 capital: instruments and regulatory adjustments										
33 Directly issued capital instruments subject to phase out from Additional Tier 1[5]	**$ 154**	**$ 154**	$ 154	$ 154	$ 154	$ 154	$ 154	$ 154	$ 154	$ 154
44 Additional Tier 1 capital (AT1)	**$ 154**	**$ 154**	$ 154	$ 154	$ 154	$ 154	$ 154	$ 154	$ 154	$ 154
45 Tier 1 capital (T1 = CET1 + AT1)	**$ 1,337**	**$ 1,335**	$ 1,310	$ 1,308	$ 1,300	$ 1,298	$ 1,278	$ 1,274	$ 1,227	$ 1,224
Tier 2 capital: instruments, provisions and regulatory adjustments										
47 Directly issued capital instruments subject to phase out from Tier 2[6]	**$ -**	**$ -**	$ -	$ -	$ -	$ -	$ 18	$ 18	$ 18	$ 18
50 Eligible allowances	**11**	**11**	11	11	11	11	11	11	10	10
58 Tier 2 capital (T2)	**$ 11**	**$ 11**	$ 11	$ 11	$ 11	$ 11	$ 29	$ 29	$ 28	$ 28
59 Total Capital (TC = T1 +T2)	**$ 1,348**	**$ 1,346**	$ 1,321	$ 1,319	$ 1,311	$ 1,309	$ 1,307	$ 1,303	$ 1,255	$ 1,252
60 Total risk weighted assets	**$ 6,989**	**$ 6,986**	$ 6,856	$ 6,853	$ 6,689	$ 6,687	$ 6,513	$ 6,509	$ 6,498	$ 6,495
Capital ratios (%)										
61 Common Equity Tier 1	**16.9%**	**16.9%**	16.9%	16.9%	17.1%	17.1%	17.3%	17.2%	16.5%	16.5%
62 Tier 1	**19.1%**	**19.1%**	19.1%	19.1%	19.4%	19.4%	19.6%	19.6%	18.9%	18.8%
63 Total Capital	**19.3%**	**19.3%**	19.3%	19.3%	19.6%	19.6%	20.1%	20.0%	19.3%	19.3%
National Target										
69 National Common Equity Tier 1 minimum ratio (if different from Basel III minimum)	**7%**		7%		7%		7%		7%	
70 Tier 1 capital all-in target ratio	**8.5%**		8.5%		8.5%		8.5%		8.5%	
71 Total capital all-in target ratio	**10.5%**		10.5%		10.5%		10.5%		10.5%	
Capital Instruments subject to phase-out arrangements										
84 Current cap on T2 instruments subject to phase out arrangements	**$ -**	**n.a.**	$ -	n.a.	$ -	n.a.	$ 18	n.a.	$ 18	n.a.

(1) Allows for certain adjustments to CET1, the largest of which being goodwill and intangible assets and the threshold deductions to be phased in over a period of five years starting in 2014, while retaining the phase out rules for non-regulatory capital instruments.

(2) Capital calculated to include all of the regulatory adjustments that will be required by 2019 but retaining the phase-out rules of non-qualifying capital.

(3) MBC is authorized to issue an unlimited number of voting, non-redeemable common shares without nominal or par value. The Bank had 1,733,566 common shares outstanding as at September 30, 2017 (December 31, 2016 – 1,733,566) issued to MLI.

(4) As part of a dividend repatriation strategy implemented during the third quarter of 2015, a recurring quarterly common equity dividend is paid based on a targeted dividend payout ratio of 35%, subject to review and approval of the Board prior to payment.

(5) MBC is authorized to issue an unlimited number of non-voting, redeemable preferred shares (subject to regulatory approval) entitled to non-cumulative dividends at a predetermined dividend rate, issuable in series, without nominal or par value. As at September 30, 2017, the Bank has issued outstanding series of 154,000 preferred shares to related entities within MFC (December 31, 2016 – 154,000), which as at September 30, 2017 were qualifying capital and excluded from the transitional phase-out. The dividend rates on these preferred shares range from 5% to 6.25% per annum.

(6) Subordinated debt is non-qualifying capital eligible for transitional phase-out. Subordinated debt outstanding as at September 30, 2017 was nil. The Bank redeemed and cancelled the last remaining subordinated debenture of $17.5 million on March 31, 2017.

Risk-weighted Assets (All-in Basis)

	Q3 2017		Q2 2017		Q1 2017		Q4 2016		Q3 2016	
	Exposure amount [1]	Risk-weighted assets [2]	Exposure amount [1]	Risk-weighted assets [2]	Exposure amount [1]	Risk-weighted assets [2]	Exposure amount [1]	Risk-weighted assets [2]	Exposure amount [1]	Risk-weighted assets [2]
Residential mortgages [3]	**$ 18,481**	**$ 3,852**	$ 18,205	$ 3,698	$ 17,973	$ 3,562	$ 17,776	$ 3,491	$ 17,779	$ 3,460
Bank	**2,101**	**422**	2,738	550	2,790	560	2,399	482	2,581	518
Other loans	**2,015**	**1,597**	1,992	1,575	1,979	1,565	1,971	1,559	1,985	1,568
Sovereign	**234**	**-**	56	-	16	-	11	2	17	2
Equity	**243**	**243**	233	233	227	227	232	232	215	215
Corporate	**474**	**122**	192	60	196	52	181	44	168	37
Other	**101**	**57**	108	61	95	56	91	45	100	50
Total credit risk	**$ 23,649**	**$ 6,293**	$ 23,524	$ 6,177	$ 23,276	$ 6,022	$ 22,661	$ 5,855	$ 22,845	$ 5,850
Operational and market risk	**n.a.**	**693**	n.a.	676	n.a.	665	n.a.	654	n.a.	645
Total risk-weighted assets	**$ 23,649**	**$ 6,986**	$ 23,524	$ 6,853	$ 23,276	$ 6,687	$ 22,661	$ 6,509	$ 22,845	$ 6,495

(1) Total exposure represents exposure at default which is the expected gross exposure upon the default of an obligor. This amount is before any specific allowances or partial write-offs and does not reflect the impact of credit risk mitigation and collateral held.

(2) Numbers are calculated using the standardized approach per the guidelines issued by OSFI under the Basel III "All-in" framework methodology with the exception of operational risk which is based on the basic indicator approach.

(3) Residential mortgages include Manulife One.

Leverage Ratio Common Disclosure on an "All-in" Basis[1]

		Q3 2017	Q2 2017	Q1 2017	Q4 2016	Q3 2016
On-balance sheet exposures						
1 On-balance sheet items excluding derivatives and SFTs	**$**	**23,225**	$ 23,158	$ 22,937	$ 22,367	$ 22,583
2 Asset amounts deducted in determining Basel III "all-in" Tier 1 capital		**(11)**	(11)	(9)	(10)	(7)
3 **Total on-balance sheet exposures (excluding derivatives and SFTs) (sum of lines 1 and 2)**	**$**	**23,214**	$ 23,147	$ 22,928	$ 22,357	$ 22,576
Derivative exposures						
4 Replacement cost associated with all derivative transactions (i.e. net of eligible cash variation margin)	**$**	**-**	$ -	$ 2	$ 1	$ 2
5 Add-on amounts for PFE associated with all derivative transactions		**3**	3	3	-	-
11 **Total derivative exposures (sum of lines 4 to 10)**	**$**	**3**	$ 3	$ 5	$ 1	$ 2
Other off-balance sheet exposures						
17 Off-balance sheet exposure at gross notional amount	**$**	**9,387**	$ 9,016	$ 8,732	$ 8,459	$ 8,201
18 (Adjustments for conversion to credit equivalent amounts)		**(8,189)**	(7,884)	(7,649)	(7,423)	(7,211)
19 **Off-balance sheet items (sum of lines 17 and 18)**	**$**	**1,198**	$ 1,132	$ 1,083	$ 1,036	$ 990
Capital and Total Exposures						
20 Tier 1 capital	**$**	**1,335**	$ 1,308	$ 1,298	$ 1,274	$ 1,224
21 Total Exposures (sum of lines 3, 11 and 19)	**$**	**24,415**	$ 24,282	$ 24,016	$ 23,394	$ 23,568
Leverage Ratios						
22 Basel III leverage ratio		**5.5%**	5.4%	5.4%	5.4%	5.2%

(1) Under the public disclosure requirements related to the Basel III Leverage Ratio, MBC as a non Domestic Systemically Important Bank ("D-SIB") is only required to provide a breakdown of the leverage ratio regulatory elements on an "all-in" basis. As such no disclosure is required on a transitional basis and any difference would be immaterial.

B20 Disclosures

Residential mortgage loans and Manulife One

MBC has a conservative and high quality mortgage loans portfolio. As at September 30, 2017 MBC had $2.7 billion residential mortgage loans, of which $2.2 billion (81%) were insured[9] and $0.5 billion (19%) were uninsured. In addition, the Bank had $15.5 billion of Manulife One loans of which $5.1 billion (33%) were insured and $10.4 billion (67%) were uninsured. Overall as at September 30, 2017, MBC had $18.3 billion in residential mortgage and Manulife One mortgage loans of which $7.4 billion (40%) were insured. All residential mortgage loans and Manulife One mortgage loans were originated in Canada.

The table outlining the residential mortgage loans and Manulife One portfolios by geographic region[10] and type is included in the quantitative disclosures below.

Residential mortgage loans and Manulife One (fixed[11]) portfolios by amortization period

A summary of MBC's residential mortgage loans and Manulife One (fixed) by remaining amortization[12] period based on the contractual terms of the mortgage agreement is presented in the quantitative section below.

Average loan-to-value (LTV) ratio

The LTV ratio factors in the amount of collateral value that supports the loan in comparison to the loan value. The LTV ratio on MBC's total residential mortgage portfolio, including HELOCs was 43% as at September 30, 2017 (December 31, 2016 – 46%). This calculation is weighted by mortgage balances and adjusted for property values based on the Teranet – National Bank National Composite House Price Index.

The Bank regularly monitors the credit quality of its portfolio and has implemented a program (PAM), where the Bank proactively takes corrective actions prior to loans going into arrears. The Bank also performs stress tests in order to assess the expected losses on the portfolio in a scenario of a severe shock to the real estate market. The tests indicate that MBC is well positioned to absorb credit losses resulting from conditions assumed in the stress tests.

The table below in the quantitative disclosures provides a summary of the weighted average LTV ratio by geographic region[13] and type for newly originated and acquired uninsured mortgage loans and HELOCs (including refinances with increase in funds or limits) during the current period.

[9] Insured mortgage loans and Manulife One accounts refer to mortgage loans and accounts whereby the exposure to default is mitigated by insurance through the CMHC or other private mortgage default insurers.

[10] Region is based upon address of property mortgaged.

[11] Fixed represents the amortizing portion of the Manulife One account.

[12] Remaining amortization is the difference between the contractual amortization and the time elapsed since origination.

[13] Region is based upon address of property mortgaged.

B20 - Mortgages by Province

	Q3 2017				Q2 2017				Q1 2017			
	Insured [2]	Uninsured [2]	Total	Total %	Insured [2]	Uninsured [2]	Total	Total %	Insured [2]	Uninsured [2]	Total	Total %
Residential mortgages [1]												
Alberta	**$ 329**	**31**	**$ 360**	**13%**	$ 298	$ 30	$ 328	13%	$ 286	$ 30	$ 316	13%
Atlantic provinces	**115**	**23**	**138**	**5%**	104	21	125	5%	102	20	122	5%
British Columbia	**145**	**30**	**175**	**6%**	140	27	167	6%	142	26	168	7%
Manitoba	**25**	**4**	**29**	**1%**	22	4	26	1%	20	4	24	1%
Ontario	**481**	**123**	**604**	**22%**	475	130	605	23%	469	124	593	23%
Québec	**1,064**	**287**	**1,351**	**49%**	1,017	271	1,288	49%	941	256	1,197	48%
Saskatchewan	**80**	**15**	**95**	**4%**	74	14	88	3%	76	14	90	3%
Territories	**1**	**-**	**1**	**0%**	1	-	1	0%	1	-	1	0%
Total	**$ 2,240**	**$ 513**	**$ 2,753**	**100%**	$ 2,131	$ 497	$ 2,628	100%	$ 2,037	$ 474	$ 2,511	100%
Manulife One												
Alberta	**$ 965**	**$ 1,158**	**$ 2,123**	**14%**	$ 986	$ 1,123	$ 2,109	14%	$ 1,010	$ 1,092	$ 2,102	14%
Atlantic provinces	**347**	**516**	**863**	**6%**	357	508	865	6%	365	503	868	6%
British Columbia	**937**	**1,385**	**2,322**	**15%**	990	1,297	2,287	15%	1,033	1,244	2,277	15%
Manitoba	**129**	**221**	**350**	**2%**	133	217	350	2%	136	212	348	2%
Ontario	**1,633**	**4,432**	**6,065**	**39%**	1,706	4,277	5,983	39%	1,784	4,077	5,861	38%
Québec	**843**	**2,304**	**3,147**	**20%**	866	2,300	3,166	20%	896	2,302	3,198	21%
Saskatchewan	**269**	**380**	**649**	**4%**	274	379	653	4%	282	374	656	4%
Total	**$ 5,123**	**$ 10,396**	**$ 15,519**	**100%**	$ 5,312	$ 10,101	$ 15,413	100%	$ 5,506	$ 9,804	$ 15,310	100%

	Q4 2016				Q3 2016			
	Insured [2]	Uninsured [2]	Total	Total %	Insured [2]	Uninsured [2]	Total	Total %
Residential mortgages [1]								
Alberta	$ 278	$ 28	$ 306	13%	$ 278	$ 31	$ 309	13%
Atlantic provinces	101	20	121	5%	95	22	117	5%
British Columbia	132	27	159	7%	119	28	147	6%
Manitoba	17	4	21	1%	16	4	20	1%
Ontario	454	116	570	24%	444	126	570	24%
Québec	880	249	1,129	47%	830	254	1,084	47%
Saskatchewan	72	14	86	3%	74	15	89	4%
Territories	1	-	1	0%	-	-	-	-
Total	$ 1,935	$ 458	$ 2,393	100%	$ 1,856	$ 480	$ 2,336	100%
Manulife One								
Alberta	$ 1,028	$ 1,079	$ 2,107	14%	$ 1,060	$ 1,068	$ 2,128	14%
Atlantic provinces	373	504	877	6%	385	505	890	6%
British Columbia	1,066	1,200	2,266	15%	1,113	1,173	2,286	15%
Manitoba	138	209	347	2%	142	206	348	2%
Ontario	1,843	3,967	5,810	38%	1,931	3,905	5,836	38%
Québec	912	2,289	3,201	21%	938	2,255	3,193	21%
Saskatchewan	286	370	656	4%	294	376	670	4%
Total	$ 5,646	$ 9,618	$ 15,264	100%	$ 5,863	$ 9,488	$ 15,351	100%

[1] Residential mortgages exclude Manulife One accounts.

[2] The amounts presented for residential mortgages and Manulife One are gross of allowance for credit losses.

B20 - Average LTV Ratios

	Q3 2017				Q2 2017				Q1 2017			
	Residential	Manulife One [1]			Residential	Manulife One [1]			Residential	Manulife One [1]		
Average LTV ratio %	mortgages [2]	Revolving [3]	Fixed [3]	Total	mortgages [2]	Revolving [3]	Fixed [3]	Total	mortgages [2]	Revolving [3]	Fixed [3]	Total
Alberta	**70%**	**51%**	**21%**	**72%**	72%	53%	19%	72%	73%	53%	18%	71%
Atlantic provinces	**71%**	**50%**	**21%**	**71%**	67%	57%	14%	71%	80%	51%	20%	71%
British Columbia	**61%**	**48%**	**15%**	**63%**	63%	49%	14%	63%	66%	48%	16%	64%
Manitoba	**69%**	**56%**	**16%**	**72%**	0%	55%	18%	73%	11%	58%	12%	70%
Ontario	**64%**	**50%**	**16%**	**66%**	70%	51%	15%	66%	70%	51%	16%	67%
Quebec	**71%**	**55%**	**15%**	**70%**	72%	56%	16%	72%	73%	56%	16%	72%
Saskatchewan	**60%**	**56%**	**16%**	**72%**	80%	54%	19%	73%	35%	55%	16%	71%
Average	**68%**	**50%**	**16%**	**66%**	72%	51%	16%	67%	72%	52%	16%	68%

	Q4 2016				Q3 2016			
	Residential	Manulife One [1]			Residential	Manulife One [1]		
Average LTV ratio %	mortgages [2]	Revolving [3]	Fixed [3]	Total	mortgages [2]	Revolving [3]	Fixed [3]	Total
Alberta	65%	56%	15%	71%	76%	56%	14%	70%
Atlantic provinces	72%	51%	18%	69%	71%	53%	15%	68%
British Columbia	70%	51%	12%	63%	71%	51%	12%	63%
Manitoba	80%	56%	14%	70%	67%	55%	16%	71%
Ontario	66%	53%	15%	68%	70%	54%	15%	69%
Quebec	72%	57%	15%	72%	71%	56%	16%	72%
Saskatchewan	70%	55%	15%	70%	74%	59%	11%	70%
Average	70%	53%	14%	67%	71%	54%	14%	68%

[1] Manulife One comprising of both revolving and fixed components is secured by the same collateral (residential property).

[2] LTV is calculated using the outstanding amount and weighted by the outstanding amount of each loan.

[3] LTV is calculated based on the authorized limit for revolving component and outstanding amount for the fixed component of Manulife One accounts and weighted by the total borrowing limit for each account. For the revolving component of Manulife One accounts, the average LTV ratio based on the outstanding amount and weighted by total outstanding amount for Manulife One accounts is 38% compared to 50% based on the authorized limits for the three month period ended September 30, 2017 and 43% compared to 54% based on the authorized limits for the three month period ended September 30, 2016.

B20 - Mortgages by Amortization Period

	Residential mortgages					Manulife One (fixed)				
	Q3 2017	Q2 2017	Q1 2017	Q4 2016	Q3 2016	**Q3 2017**	Q2 2017	Q1 2017	Q4 2016	Q3 2016
Less than 20 years	**23%**	24%	25%	26%	26%	**27%**	28%	29%	30%	30%
20-25 years	**61%**	57%	56%	54%	53%	**42%**	40%	39%	38%	38%
25-30 years	**16%**	19%	19%	19%	20%	**30%**	31%	30%	30%	30%
30 years and greater	**0%**	0%	0%	1%	1%	**1%**	1%	2%	2%	2%
Total	**100%**	100%	100%	100%	100%	**100%**	100%	100%	100%	100%

Glossary

Basel III framework

- Pillar 1 – CAR: Outlines methodologies to calculate capital and set minimum capital requirements;
- Pillar 2 – Supervisory Review: Requires banks to maintain a formal internal capital adequacy assessment process, subject to supervisory review; and
- Pillar 3 – Market Discipline: Complements other pillars by providing enhanced public disclosures to enable market participants to understand the risk profile of the bank and assess the application of Basel III capital requirements.

Risk weighted assets ("RWA")

Under Basel III, OSFI requires banks to meet minimum risk-based capital requirements for exposures to credit risk, operational risk and market risk, where there are significant trading activities. Risk-weighted assets are calculated for each of these types of risks and added together to determine total risk weighted assets.

Common Equity Tier 1 ("CET1") capital

Comprised mainly of common shares, retained earnings and AOCI, net of applicable regulatory adjustments.

Additional Tier 1 capital

Consists of Tier 1 instruments issued that do not meet the criteria of CET1, contributed surplus from the issuance of instruments not included in CET1, instruments issued by consolidated subsidiaries not included in CET1, net of applicable regulatory adjustments.

Tier 2 capital

Consists of eligible general allowances and subordinated debt, net of applicable regulatory adjustments.

Capital ratios

Regulatory capital ratios are calculated by dividing CET1, Tier 1 and Total Capital by risk-weighted assets. In addition to the CET1, Tier 1 and Total Capital Ratios, Canadian Deposit-taking Institutions are required to ensure that a Leverage Ratio meets a minimum level prescribed by OSFI. All items that are deducted from capital are excluded from total assets.

Leverage ratio

The Leverage Ratio is calculated by dividing the Bank's Tier 1 Capital by the Bank's Total Exposure. The Bank's Total Exposure is the sum of the following: (a) on-balance sheet exposures; (b) derivative exposures; (c) securities financing transaction exposures; and (d) off-balance sheet exposures.

Efficiency ratio

The ratio represents total money expensed to earn a dollar of revenue i.e. a ratio of expense to revenue. A low ratio indicates that the Bank has been efficiently utilizing its resources.