

BMO Financial Group

Supplementary Regulatory Capital Information

For the Quarter Ended - October 31, 2022

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This report is unaudited and all amounts are in millions of Canadian dollars, unless otherwise indicated.

Use of this Document

The supplemental information contained in this package is designed to improve the readers' understanding of the capital requirements of BMO Financial Group (the Bank). This information should be used in conjunction with the Bank's Fourth Quarter 2022 Earnings Release and the 2022 Annual Report available on SEDAR at www.sedar.com and BMO's website at www.bmo.com/investorrelations.

Additional financial information is also available in the Q4 2022 Supplementary Financial Information, and the Q4 2022 Investor Presentation which can be accessed at our website at www.bmo.com/investorrelations.

This report is unaudited and all amounts are in millions of Canadian dollars, unless indicated otherwise.

Items indicated n.a. were not applicable.

Regulatory Framework

Regulatory capital requirements for BMO are determined in accordance with guidelines issued by the Office of the Superintendent of Financial Institutions (OSFI), which are based on the Basel III framework developed by the Basel Committee on Banking Supervision (BCBS). The measures and disclosures herein are presented in accordance with OSFI's Pillar 3 Requirements Guideline and the Enhanced Disclosure Task Force (EDTF) regulatory capital related disclosures and reflect our adherence with, as applicable, OSFI's Capital Adequacy Requirements (CAR) Guideline, Leverage Requirements Guideline, and Total Loss Absorbing Capacity (TLAC) Guideline.

Changes

In March 2020, OSFI's letter to Federally Regulated Deposit-Taking Institutions (DTIs) introduced an adjustment to Common Equity Tier 1 (CET1) capital for Expected Credit Loss (ECL) provisioning. The adjustment to CET1 capital is measured each quarter as the increase in Stage 1 and Stage 2 allowances relative to January 31, 2020. The increased amount is adjusted for tax effects and subject to a scaling factor. The scaling factor was set at 70% in fiscal 2020, 50% in fiscal 2021 and 25% in fiscal 2022. We implemented this adjustment effective Q2 2020.

In April 2020, OSFI announced temporary exclusions to the Leverage Ratio Requirements. Such exclusions are limited to central bank reserves and securities issued by sovereigns that qualify as High Quality Liquid Assets under the Liquidity Adequacy Requirements Guideline. We adopted this treatment prospectively effective Q2 2020 and it remained in place through Q4 2021.

In August 2021, OSFI announced the exclusion of securities issued by sovereigns that qualify as High Quality Liquid Assets under the Liquidity Adequacy Requirements Guidelines from the leverage ratio exposure measure would not be extended past December 31, 2021. Central bank reserves will continue to be excluded from the leverage ratio measure.

On November 1, 2021, the minimum TLAC requirements set by OSFI came into effect. The minimum risk based TLAC ratio is set at 24% of RWA, including a 2.5% Domestic Stability Buffer. The minimum TLAC Leverage Ratio is set at 6.75%.

Users may provide their comments and suggestions on the Supplementary Regulatory Capital Information document by contacting Bill Anderson at (416) 867-7834 or bill2.anderson@bmo.com

Tables and Templates		Frequency	Q4 2022 Supplementary Financial Information	Q4 2022 Supplementary Regulatory Capital Information	2022 Annual MD&A	2022 Annual Financial Statements
			Page Reference			
Overview of Risk Management, Key Prudential Metrics and RWA	KM2 - Key metrics - TLAC requirements	Quarterly		7		
	OVA - Bank risk management approach	Annual			65-71, 73-113	
	OV1 - Overview of RWA	Quarterly		11		
Linkages between Financial Statements and Regulatory Exposures	LI1 - Differences between accounting and regulatory scopes of consolidation and mapping of financial statement categories with regulatory risk categories	Quarterly		12		
	LI2 - Main sources of differences between regulatory exposure amounts and carrying values in financial statements	Quarterly		13		
	LIA - Explanations of differences between accounting and regulatory exposure amounts	Annual		12-13	114-115	186-192
Composition of Capital and TLAC	CCA - Main features of regulatory capital instruments and other TLAC - eligible instruments (1)	Quarterly				
	CC1 - Composition of regulatory capital	Quarterly		3-4		
	CC2 - Reconciliation of regulatory capital to balance sheet	Quarterly		5		
	TLAC1 - TLAC composition	Quarterly		8		
	TLAC2 - Material subgroup entity - creditor ranking at legal entity level		Not applicable to BMO			
Leverage Ratio	TLAC3 - Resolution entity - creditor ranking at legal entity level	Quarterly		9		
	LR1 - Summary comparison of accounting assets vs leverage ratio exposure measure	Quarterly		10		
	LR2 - Leverage ratio common disclosure	Quarterly		10		
Credit Risk	CRA - General qualitative information about credit risk	Annual			77-83	
	CR1 - Credit quality of assets	Quarterly		14		
	CR2 - Changes in stock of defaulted loans and debt securities	Quarterly		15		
	CRB - Additional disclosures related to the credit quality of assets - Qualitative disclosures	Annual		14	114	149, 155-161
	CRB - Additional disclosures related to the credit quality of assets - Quantitative disclosures	Quarterly	26-32, 34	14, 32-34		
	CRC - Qualitative disclosure requirements related to credit risk mitigation techniques	Annual			83-85, 89	173, 187
	CR3 - Credit risk mitigation techniques - overview	Quarterly		16		
	CRD - Qualitative disclosures on banks' use of external credit ratings under the standardized approach for credit risk	Annual		19-20	86-87	
	CR4 - Standardized approach - credit risk exposure and Credit Risk Mitigation (CRM) effects	Quarterly		17-18		
	CR5 - Standardized approach - exposures by asset classes and risk weights	Quarterly		19-20		
	CRE - Qualitative disclosures related to IRB models	Annual		32	85-87, 106-107	
	CR6 - IRB - Credit risk exposures by portfolio and PD range	Quarterly		21-30		
	CR7 - IRB - Effect on RWA of credit derivatives used as CRM techniques	Quarterly	Impact is immaterial and has been disclosed in page 32, footnote 3.			
	CR8 - RWA flow statements of credit risk exposures under IRB	Quarterly		31		
	CR9 - IRB - Backtesting of probability of default (PD) per portfolio	Annual			86-87, 107	
Counterparty Credit Risk	CR10 - IRB (specialized lending and equities under the simple risk-weight method)		Not applicable to BMO			
	CCRA - Qualitative disclosure related to counterparty credit risk	Annual			83-84, 99	
	CCR1 - Analysis of counterparty credit risk (CCR) exposure by approach	Quarterly		35		
	CCR2 - Credit valuation adjustment (CVA) capital charge	Quarterly		36		
	CCR3 - Standardized approach - CCR exposures by regulatory portfolio and risk weights	Quarterly		37-38		
	CCR4 - IRB - CCR exposures by portfolio and PD scale	Quarterly		39-43		
	CCR5 - Composition of collateral for CCR exposure	Quarterly		44		
	CCR6 - Credit derivatives exposures	Quarterly		45		
	CCR7 - RWA flow statements of CCR exposures under Internal Model Method (IMM)		Not applicable to BMO			
	CCR8 - Exposures to central counterparties	Quarterly		46		
Securitization	SECA - Qualitative disclosure requirements related to securitization exposures	Annual			71-72, 85	146, 150-151, 163-166
	SEC1 - Securitization exposures in the banking book	Quarterly		49-50		
	SEC2 - Securitization exposures in the trading book	Quarterly		51-52		
	SEC3 - Securitization exposures in the banking book and associated regulatory capital requirements (bank acting as originator or as sponsor)	Quarterly		53-54		
	SEC4 - Securitization exposures in the banking book and associated capital requirements (bank acting as investor)	Quarterly		55-56		
Market Risk	MRA - Qualitative disclosure requirements related to market risk		BMO has deferred these disclosures as allowed per OSFI's Pillar 3 guidance issued April 2017			
	MRB - Qualitative disclosures for banks using the Internal Models Approach (IMA)					
	MR1 - Market risk under standardized approach					
	MR2 - RWA flow statements of market risk exposures under an IMA					
	MR3 - IMA values for trading portfolios					
	MR4 - Comparison of VaR estimates with gains/losses					
Operational Risk	General qualitative information on a bank's operational risk framework	Annual			104-107	
Interest Rate Risk in the Banking Book	Qualitative disclosures on IRRBB	Annual			92-93	
	Quantitative disclosures on IRRBB	Annual			93	
Macroprudential supervisory measures	GSIB1 - Disclosure of global systemically important bank (G-SIB) indicators (2)	Annual	Disclosed in the Q1 2022 Report to Shareholders, page 34.			

(1) CCA is available at <https://www.bmo.com/home/about/banking/investor-relations/regulatory-disclosure>.(2) Current and previous years' GSIB1 disclosure is available at <https://www.bmo.com/main/about-bmo/banking/investor-relations/financial-information#2022>.

CC1 - COMPOSITION OF REGULATORY CAPITAL (1)

(\$ millions except as noted)

		Cross reference (2)	Q4 2022	Q3 2022	Q2 2022	Q1 2022	Q4 2021
1	Common Equity Tier 1 Capital: instruments and reserves						
2	Directly issued qualifying common share capital plus related stock surplus	a+b	18,061	17,707	17,356	13,944	13,912
3	Retained earnings	c	45,117	41,653	41,275	37,513	35,497
4	Accumulated other comprehensive income (and other reserves)	d	1,552	1,926	1,253	2,789	2,556
5	<i>Directly issued capital subject to phase out from CET1 (3)</i>		n.a.	n.a.	n.a.	n.a.	n.a.
6	Common share capital issued by subsidiaries and held by third parties (amount allowed in group CET1)		-	-	-	-	-
6	Common Equity Tier 1 Capital before regulatory adjustments		64,730	61,286	59,884	54,246	51,965
7	Common Equity Tier 1 Capital: regulatory adjustments						
8	Prudential valuation adjustments		125	134	119	108	88
9	Goodwill (net of related tax liability)	e+f-g	5,092	4,825	4,824	4,780	5,207
10	Other intangibles other than mortgage-servicing rights (net of related tax liability)	h-i	1,809	1,737	1,826	1,813	1,923
11	Deferred tax assets excluding those arising from temporary differences (net of related tax liability)	j-k	7	3	1	14	13
12	Cash flow hedge reserve	l	(5,128)	(2,508)	(2,974)	(431)	185
13	Shortfall of provisions to expected losses	m	-	-	-	-	-
14	Securitization gain on sale		-	-	-	-	-
15	Gains or losses due to changes in own credit risk on fair valued liabilities		1,204	881	420	(201)	(320)
16	Defined benefit pension fund net assets (net of related tax liability)	n-o	886	900	1,026	705	704
17	Investments in own shares (if not already netted off paid-in capital on reported balance sheet)	p	-	-	-	-	-
18	Reciprocal cross holdings in common equity		-	-	-	-	-
19	Non-significant investments in the capital of banking, financial and insurance entities, net of eligible short positions (amount above 10% threshold)		-	-	-	-	-
20	Significant investments in the common stock of banking, financial and insurance entities that are outside the scope of regulatory consolidation, net of eligible short positions (amount above 10% threshold)		-	-	-	-	-
21	Mortgage servicing rights (amount above 10% threshold)		-	-	-	-	-
22	Deferred tax assets arising from temporary differences (amount above 10% threshold, net of related tax liability)		-	-	-	-	-
23	Amount exceeding the 15% threshold		-	-	-	-	-
24	of which: significant investments in the common stock financials		-	-	-	-	-
25	of which: mortgage servicing rights		-	-	-	-	-
26	of which: deferred tax assets arising from temporary differences		-	-	-	-	-
27	Other deductions or regulatory adjustments to CET1 as determined by OSFI (4)	q	(156)	(150)	(133)	(152)	(326)
28	Regulatory adjustments applied to Common Equity Tier 1 due to insufficient Additional Tier 1 and Tier 2 to cover deductions		-	-	-	-	-
28	Total regulatory adjustments to Common Equity Tier 1 Capital		3,839	5,822	5,109	6,636	7,474
29	Common Equity Tier 1 Capital (CET1)		60,891	55,464	54,775	47,610	44,491
29a	Common Equity Tier 1 Capital (CET1) with transitional arrangements for ECL provisioning not applied		60,735	55,314	54,642	47,458	44,165
30	Additional Tier 1 Capital: instruments						
31	Directly issued qualifying Additional Tier 1 instruments plus related stock surplus	r	6,308	5,308	5,208	4,958	5,558
32	of which: classified as equity under applicable accounting standards		6,308	5,308	5,208	4,958	5,558
33	of which: classified as liabilities under applicable accounting standards		-	-	-	-	-
34	<i>Directly issued capital instruments subject to phase out from Additional Tier 1 (3)</i>	s	n.a.	n.a.	n.a.	n.a.	-
35	Additional Tier 1 instruments (and CET1 instruments not included in row 5) issued by subsidiaries and held by third parties (amount allowed in group AT1)		-	-	-	-	-
36	<i>of which: instruments issued by subsidiaries subject to phase out (3)</i>		n.a.	n.a.	n.a.	n.a.	-
36	Additional Tier 1 Capital before regulatory adjustments		6,308	5,308	5,208	4,958	5,558
37	Additional Tier 1 Capital: regulatory adjustments						
38	Investments in own Additional Tier 1 instruments	t	-	10	6	9	5
39	Reciprocal cross holdings in Additional Tier 1 instruments		-	-	-	-	-
40	Non-significant investments in the capital of banking, financial and insurance entities, net of eligible short positions (amount above 10% threshold)		-	-	-	-	-
41	Significant investments in the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation, net of eligible short positions	u	78	78	78	78	78
42	Other deductions from Tier 1 Capital as determined by OSFI		-	-	-	-	-
43	of which: Reverse mortgages		-	-	-	-	-
44	Regulatory adjustments applied to Additional Tier 1 due to insufficient Tier 2 to cover deductions		-	-	-	-	-
44	Total regulatory adjustments applied to Additional Tier 1 Capital		78	88	84	87	83
45	Additional Tier 1 Capital (AT1)		6,230	5,220	5,124	4,871	5,475
45a	Tier 1 Capital (T1 = CET1 + AT1)		67,121	60,684	59,899	52,481	49,966
46	Tier 1 Capital with transitional arrangements for ECL provisioning not applied		66,965	60,534	59,766	52,329	49,640
47	Tier 2 Capital: instruments and provisions						
48	Directly issued qualifying Tier 2 instruments plus related stock surplus	v	8,003	7,296	7,242	8,335	6,747
49	<i>Directly issued capital instruments subject to phase out from Tier 2 Capital (3)</i>	w	n.a.	n.a.	n.a.	n.a.	141
50	Tier 2 instruments (and CET1 and AT1 instruments not included in row 5 or 34) issued by subsidiaries and held by third parties (amount allowed in group Tier 2 Capital)		-	-	-	-	-
51	<i>of which: instruments issued by subsidiaries subject to phase out (3)</i>		n.a.	n.a.	n.a.	n.a.	-
52	General allowances	x	235	203	248	284	398
53	Tier 2 Capital before regulatory adjustments		8,238	7,499	7,490	8,619	7,286

(1) Row numbering, as per OSFI May 2018 advisory, is provided for consistency and comparability in the disclosure of elements of capital among banks and across jurisdictions. Banks are required to maintain the same row numbering per OSFI advisory. Where there is no value in a row, institutions should report n.a. or nil and the row number must not change.

(2) Cross reference to CC2 - Reconciliation of Regulatory Capital to Balance Sheet (page 5).

(3) Q4 2021 includes the capital value of instruments which no longer qualify as regulatory capital under Basel III rules and were phased out at a rate of 10% per year from January 1, 2013 through January 1, 2022.

(4) Represents the transitional arrangements for the capital treatment of ECL provisioning announced by OSFI in March 2020 applying a scaling factor. The scaling factor is set at 50% in fiscal 2021 and 25% in fiscal 2022.

CC1 - COMPOSITION OF REGULATORY CAPITAL (CONTINUED)

(\$ millions except as noted)		Cross reference	Q4 2022	Q3 2022	Q2 2022	Q1 2022	Q4 2021
52	Tier 2 Capital: regulatory adjustments						
53	Investments in own Tier 2 instruments	y	-	-	1	-	1
54	Reciprocal cross holdings in Tier 2 instruments and Other TLAC-eligible instruments		-	-	-	-	-
54a	Non-significant investments in the capital of banking, financial and insurance entities and Other TLAC-eligible instruments issued by G-SIBs and Canadian D-SIBs that are outside the scope of regulatory consolidation, where the institution does not own more than 10% of the issued common share capital of the entity (amount above 10% threshold)		-	-	-	-	-
55	Non-significant investments in the other TLAC-eligible instruments issued by G-SIBs and Canadian D-SIBs, where the institution does not own more than 10% of the issued common share capital of the entity: amount previously designated for the 5% threshold but that no longer meets the conditions		-	-	-	-	-
56	Significant investments in the capital of banking, financial and insurance entities and Other TLAC-eligible instruments issued by G-SIBs and Canadian D-SIBs that are outside the scope of regulatory consolidation, net of eligible short positions	z	50	50	50	50	50
57	Other deductions from Tier 2 capital		-	-	-	-	-
58	Total regulatory adjustments to Tier 2 Capital		50	50	51	50	51
59	Tier 2 Capital (T2)		8,188	7,449	7,439	8,569	7,235
59a	Total Capital (TC = T1 + T2)		75,309	68,133	67,338	61,050	57,201
60	Total Capital with transitional arrangements for ECL provisioning not applied		75,309	68,133	67,338	61,050	57,201
60a	Total Risk-Weighted Assets						
60a	Common Equity Tier 1 (CET 1) Capital RWA (1)		363,997	351,711	342,287	337,652	325,433
60b	Tier 1 Capital RWA (1)		363,997	351,711	342,287	337,652	325,433
60c	Total Capital RWA (1)		363,997	351,711	342,287	337,652	325,433
61	Capital Ratios						
61a	Common Equity Tier 1 (as percentage of risk-weighted assets)		16.7%	15.8%	16.0%	14.1%	13.7%
62	CET1 Ratio with transitional arrangements for ECL provisioning not applied		16.7%	15.7%	16.0%	14.1%	13.6%
62a	Tier 1 (as percentage of risk-weighted assets)		18.4%	17.3%	17.5%	15.5%	15.4%
63	Tier 1 Capital Ratio with transitional arrangements for ECL provisioning not applied		18.4%	17.2%	17.5%	15.5%	15.3%
63a	Total Capital (as percentage of risk-weighted assets)		20.7%	19.4%	19.7%	18.1%	17.6%
64	Total Capital Ratio with transitional arrangements for ECL provisioning not applied		20.7%	19.4%	19.7%	18.1%	17.6%
65	Buffer (minimum CET1 plus capital conservation buffer plus G-SIB buffer plus D-SIB buffer requirement, expressed as a percentage of risk-weighted assets)		8.0%	8.0%	8.0%	8.0%	8.0%
66	of which: capital conservation buffer		2.5%	2.5%	2.5%	2.5%	2.5%
67	of which: bank specific countercyclical buffer		0.0%	0.0%	0.0%	0.0%	0.0%
67a	of which: G-SIB buffer		n.a.	n.a.	n.a.	n.a.	n.a.
68	of which: D-SIB buffer		1.0%	1.0%	1.0%	1.0%	1.0%
69	Common Equity Tier 1 available to meet buffers (as a percentage of risk-weighted assets)		16.7%	15.8%	16.0%	14.1%	13.7%
70	OSFI target (minimum + capital conservation buffer + D-SIB buffer (if applicable))						
71	Common Equity Tier 1 target ratio		8.0%	8.0%	8.0%	8.0%	8.0%
72	Tier 1 capital target ratio		9.5%	9.5%	9.5%	9.5%	9.5%
73	Total capital target ratio		11.5%	11.5%	11.5%	11.5%	11.5%
74	Amounts below the thresholds for deduction (before risk weighting)						
75	Non-significant investments in the capital and Other TLAC-eligible instruments of other financial entities	a1 - b1	1,005	1,108	1,048	1,364	822
76	Significant investments in the common stock of financials	c1	2,206	2,124	2,092	2,209	2,081
77	Mortgage servicing rights (net of related tax liability)	d1	38	35	36	32	29
78	Deferred tax assets arising from temporary differences (net of related tax liability)	e1 - f1	2,056	1,685	1,581	1,661	1,899
79	Applicable caps on the inclusion of provisions in Tier 2						
80	Provisions eligible for inclusion in Tier 2 in respect of exposures subject to standardized approach (prior to application of cap)		65	109	107	115	231
81	Cap on inclusion of provisions in Tier 2 under standardized approach		65	109	107	115	231
82	Provisions eligible for inclusion in Tier 2 in respect of exposures subject to internal ratings based approach (prior to application of cap)		2,063	1,977	1,947	2,039	2,039
83	Cap on inclusion of provisions in Tier 2 under internal ratings-based approach		326	244	274	321	492
84	Capital instruments subject to phase-out arrangements (only applicable between 1 Jan 2013 and 1 Jan 2022)						
85	Current cap on CET1 instruments subject to phase out arrangements		n.a.	n.a.	n.a.	n.a.	-
86	Amounts excluded from CET1 due to cap (excess over cap after redemptions and maturities)		n.a.	n.a.	n.a.	n.a.	-
87	Current cap on AT1 instruments subject to phase out arrangements		n.a.	n.a.	n.a.	n.a.	432
88	Amounts excluded from AT1 due to cap (excess over cap after redemptions and maturities)		n.a.	n.a.	n.a.	n.a.	-
89	Current cap on T2 instruments subject to phase out arrangements		n.a.	n.a.	n.a.	n.a.	513
90	Amounts excluded from T2 due to cap (excess over cap after redemptions and maturities)		n.a.	n.a.	n.a.	n.a.	-

(1) The Bank is subject to capital floor requirements as prescribed in OSFI's CAR Guidelines. Total RWA is increased by a floor adjustment amount, which is calculated based on the Standardized methodology. At October 31 2022, a Basel Capital Floor adjustment of \$12,598 million (\$2,544 million at July 31, 2022, \$7,848 at April 30, 2022, \$nil at January 31, 2022, and \$nil at October 31, 2021) was applied to the Bank's RWA.

CC2 - RECONCILIATION OF REGULATORY CAPITAL TO BALANCE SHEET

(\$ millions)	LINE #	Balance sheet as in Report to Shareholders	Under regulatory scope of consolidation (1)	Cross Reference (2)	LINE #	Balance sheet as in Report to Shareholders	Under regulatory scope of consolidation (1)	Cross Reference (2)
		Q4 2022	Q4 2022	Q4 2022		Q4 2022	Q4 2022	Q4 2022
Assets					Liabilities and Equity			
Cash and Cash Equivalents	1	87,466	87,398		Deposits	40	769,478	769,478
Interest Bearing Deposits with Banks	2	5,734	5,728		Other Liabilities			
Securities	3	273,262	264,999		Derivative instruments	41	59,956	59,797
Investments in own shares CET1 (if not already netted off paid-in capital on reported balance sheet)	4		-	p	Acceptances	42	13,235	13,235
Investments in own Additional Tier 1 instruments not derecognized for accounting purposes	5		-	t	Securities sold but not yet purchased	43	40,979	40,979
Investments in own Tier 2 instruments not derecognized for accounting purposes	6		-	y	Non-significant investments in the capital and other TLAC-eligible instruments of other financial entities (3)	44		28,177
Non-significant investments in the capital and other TLAC-eligible instruments of other financial entities (3)	7		29,182	a1	Securities lent or sold under repurchase agreements	45	103,963	103,963
Significant investments in the common stock of financials exceeding regulatory thresholds (4)	8		-		Securitization and structured entities' liabilities	46	27,068	27,068
Significant investments in the common stock of financials not exceeding regulatory thresholds (4)	9		2,206	c1	Current tax liabilities	47	425	411
Goodwill embedded in significant investments	10		54	e	Deferred tax liabilities (5)	48	102	102
Significant investments in the Additional Tier 1 instruments of banking, financial and insurance entities that are outside the scope of regulatory consolidation	11		78	u	related to goodwill	49		247
Significant investments in the Tier 2 instruments of banking, financial and insurance entities that are outside the scope of regulatory consolidation	12		50	z	related to intangibles	50		384
Securities Borrowed or Purchased Under Resale Agreements	13	113,194	113,194		related to defined-benefit pension fund net assets	51		360
Loans					related to deferred tax assets excluding those arising from temporary differences	52		4
Residential mortgages	14	148,880	148,880		related to deferred tax assets arising from temporary differences	53		1,257
Consumer instalment and other personal	15	86,103	86,103		Other	54	44,805	33,499
Credit cards	16	9,663	9,663		Total other liabilities	55	290,533	279,054
Business and government	17	309,310	309,018		Subordinated Debt			
Allowance for credit losses	18	(2,617)	(2,617)		Subordinated debt	56	8,150	8,150
Transitional arrangements for capital treatment of ECL provisioning included in CET1	19		(156)	q	Directly issued qualifying subordinated debt	57		8,003
Allowance reflected in Tier 2 regulatory capital	20		(235)	x	Directly issued subordinated debt subject to phase out	58		-
Shortfall of provisions to expected loss	21		-	m	Equity			
Total net loans	22	551,339	551,047		Preferred shares and other equity instruments	59	6,308	6,308
Other Assets					Directly issued qualifying Additional Tier 1 instruments	60		6,308
Derivative instruments	23	48,160	48,156		Directly issued Additional Tier 1 instruments subject to phase out	61		-
Customers' liability under acceptances	24	13,235	13,235		Common shares	62	17,744	17,744
Premises and equipment	25	4,841	4,746		Contributed surplus	63	317	317
Goodwill	26	5,285	5,285	f	Retained earnings	64	45,117	45,117
Intangible assets	27	2,193	2,193	h	Accumulated other comprehensive income	65	1,552	1,552
Current tax assets	28	1,421	1,421		of which: Cash flow hedges	66		(5,128)
Deferred tax assets (5)	29	1,175	1,186		Total Equity	67	71,038	71,038
Deferred tax assets excluding those arising from temporary differences	30		11	j	Total Liabilities and Equity	68	1,139,199	1,127,720
Deferred tax assets arising from temporary differences	31		3,313					
of which: exceeding regulatory thresholds	32		-					
of which: not exceeding regulatory thresholds	33		3,313	e1				
Other	34	31,894	29,132					
Defined-benefit pension fund net assets	35		1,246	n				
Mortgage servicing rights	36		38					
of which: exceeding regulatory thresholds	37		-					
of which: not exceeding regulatory thresholds	38		38	d1				
Total Assets	39	1 139 199	1 127 720					

(1) Balance sheet under regulatory scope does not include the following entities: BMO Life Insurance Company and BMO Reinsurance Limited. BMO Life Insurance Company (\$12,969 million assets and \$1,583 million equity) covers the development and marketing of individual life, critical illness and annuity products as well as segregated funds. It also offers group creditor and travel insurance to bank customers in Canada. BMO Reinsurance Limited (\$256 million assets and \$113 million equity) covers the reinsurance of life, health and disability insurance risks. The business reinsured is written by insurers and reinsurers principally in North America and Europe.

(2) Cross reference to CC1 - Composition of Regulatory Capital (pages 3 and 4).

(3) Includes synthetic holdings of non-significant capital investments in banking, financial and insurance entities.

(4) Under Basel III, significant investments in financial services entities that are outside the scope of regulatory consolidation are deducted from the Bank's capital using the corresponding deduction approach (e.g. investments in non-common Tier 1 are deducted from the Bank's non-common Tier 1 capital) except that investments in common equity capital of a significant investment which represents less than 10% of the Bank's CET1 are risk-weighted at 250% and are not deducted provided the sum of such investments, deferred tax assets related to timing differences and mortgage servicing rights are less than 15% of the Bank's CET1. Goodwill embedded in significant investments is separated and is shown in the corresponding line below.

(5) Deferred tax assets and liabilities are presented on the balance sheet net by legal jurisdiction.

FLOW STATEMENT OF BASEL III REGULATORY CAPITAL

(\$ millions)	LINE #					
		Q4 2022	Q3 2022	Q2 2022	Q1 2022	Q4 2021
Common Equity Tier 1 Capital						
Opening Balance	1	55,464	54,775	47,610	44,491	43,349
New capital issues	2	354	358	3,428	22	23
Redeemed capital or Treasury Shares	3	(2)	(4)	(15)	4	(33)
Gross dividends and distributions (deduction)	4	(1,017)	(985)	(946)	(917)	(747)
Net Income	5	4,483	1,365	4,756	2,933	2,159
Removal of own credit spread (net of tax)	6	(323)	(461)	(621)	(119)	(10)
Movements in other comprehensive income						
Currency translation differences	7	2,034	(102)	258	709	(195)
Fair value through other comprehensive income securities	8	(199)	(11)	(232)	(88)	(148)
Other (1)	9	411	320	982	228	182
Goodwill and other intangible assets (deduction, net of related tax liability)	10	(339)	88	(57)	537	103
Other, including regulatory adjustments and transitional arrangements						
Deferred tax assets that rely on future profitability (excluding those arising from temporary differences)	11	(4)	(2)	13	(1)	7
Prudential valuation adjustments	12	9	(15)	(11)	(20)	-
Other (2)	13	20	138	(390)	(169)	(199)
Closing Balance	14	60,891	55,464	54,775	47,610	44,491
Other non-core Tier 1 (Additional Tier 1) Capital						
Opening Balance	15	5,220	5,124	4,871	5,475	5,477
New non-core tier 1 (Additional Tier 1) eligible capital issues	16	1,000	500	750	-	-
Redeemed capital	17	-	(400)	(500)	(600)	-
Other, including regulatory adjustments and transitional arrangements (3)	18	10	(4)	3	(4)	(2)
Closing Balance	19	6,230	5,220	5,124	4,871	5,475
Total Tier 1 Capital	20	67,121	60,684	59,899	52,481	49,966
Tier 2 Capital						
Opening Balance	21	7,449	7,439	8,569	7,235	7,377
New Tier 2 eligible capital issues	22	750	-	-	1,587	-
Redeemed capital	23	-	-	(850)	-	-
Amortization adjustments	24	-	-	-	-	-
Other, including regulatory adjustments and transitional arrangements (4)	25	(11)	10	(280)	(253)	(142)
Closing Balance	26	8,188	7,449	7,439	8,569	7,235
Total Regulatory Capital	27	75,309	68,133	67,338	61,050	57,201

(1) Includes: AOCI on pension and other post-employment benefits and on own credit risk on financial liabilities designated at fair value.

(2) Includes: Capital deductions for expected loss in excess of allowances, defined benefit pension assets (net of related deferred tax liability), investment in own shares, changes in contributed surplus, threshold deductions and transitional arrangements for the capital treatment of ECL provisioning announced by OSFI in March 2020.

(3) Includes: Changes in non-qualifying capital instruments.

(4) Includes: Changes in non-qualifying capital instruments and eligible allowances.

CAPITAL RATIOS FOR SIGNIFICANT BANK SUBSIDIARIES

	LINE #					
		Q4 2022	Q3 2022	Q2 2022	Q1 2022	Q4 2021
Bank of Montreal Mortgage Corporation - Basel III (1)						
Common Equity Tier 1 ratio	1	18.5%	18.3%	19.2%	18.2%	22.1%
Tier 1 ratio	2	18.5%	18.3%	19.2%	18.2%	22.1%
Total capital ratio	3	18.5%	18.3%	19.2%	18.2%	22.2%
BMO Harris Bank N.A. - Basel III (2)						
Tier 1 ratio	4	11.1%	11.5%	11.8%	11.8%	13.5%
Total capital ratio	5	12.2%	12.6%	13.0%	13.1%	14.8%

(1) Q4 2021 capital ratios include the value of instruments which no longer qualify as regulatory capital under Basel III rules and were phased out at a rate of 10% per year from January 1, 2013 through January 1, 2022.

(2) Calculated using U.S. Basel III guidelines currently in effect for U.S. regulatory purposes and based on BMO Harris N.A.'s calendar quarter ends: September 2022, June 2022, March 2022, December 2021 and September 2021.

KM2 - KEY METRICS – TLAC REQUIREMENTS (1) (2)

(\$ millions except as noted)

		Q4 2022	Q3 2022	Q2 2022	Q1 2022	Q4 2021
		a	b	c	d	e
1	Total loss-absorbing capacity (TLAC) available	120,663	112,534	105,140	96,889	90,353
1a	Total loss-absorbing capacity (TLAC) available with transitional arrangements for ECL provisioning not applied	120,663	112,534	105,140	96,889	90,353
2	Total RWA at the level of the resolution group	363,997	351,711	342,287	337,652	325,433
3	TLAC ratio: TLAC as a percentage of RWA (row 1 / row 2) (%)	33.1 %	32.0 %	30.7 %	28.7 %	27.8 %
3a	TLAC ratio: TLAC as a percentage of RWA (row 1a / row 2) (%) available with transitional arrangements for ECL provisioning not applied	33.1 %	32.0 %	30.7 %	28.7 %	27.8 %
4	Leverage ratio exposure measure at the level of the resolution group	1,189,990	1,144,101	1,111,094	1,115,676	976,690
5	TLAC Leverage Ratio: TLAC as a percentage of leverage ratio exposure measure (row 1 / row 4) (%)	10.1 %	9.8 %	9.5 %	8.7 %	9.3 %
5a	TLAC Leverage Ratio: TLAC as a percentage of leverage ratio exposure measure with transitional arrangements for ECL provisioning not applied (row 1a / row 4) (%)	10.1 %	9.8 %	9.5 %	8.7 %	9.3 %
6a	Does the subordination exemption in the antepenultimate paragraph of Section 11 of the FSB TLAC Term Sheet apply?	Yes	Yes	Yes	Yes	Yes
6b	Does the subordination exemption in the penultimate paragraph of Section 11 of the FSB TLAC Term Sheet apply?	No	No	No	No	No
6c	external TLAC, divided by funding issued that ranks pari passu with Excluded Liabilities and that would be recognized as external TLAC if no cap was applied (%)	n.a.	n.a.	n.a.	n.a.	n.a.

- (1) BMO Financial Group uses the Single Point of Entry approach whereby the parent bank is the single resolution entity on which the resolution measures are applied. KM2 is reported on a consolidated basis excluding insurance subsidiaries.
- (2) Lines 1, 3 and 5 incorporate transitional arrangements for the capital treatment of ECL provisioning announced by OSFI in March 2020 applying a scaling factor. The scaling factor is set at 50% in fiscal 2021 and 25% in fiscal 2022. Lines 1a, 3a and 5a represent TLAC available with transitional arrangements for ECL provisioning not applied.

TLAC1 - TLAC COMPOSITION (1)

		Q4 2022	Q3 2022	Q2 2022	Q1 2022	Q4 2021
(\$ millions except as noted)		a	b	c	d	e
Regulatory capital elements of TLAC and adjustments						
1	Common Equity Tier 1 capital (CET1)	60,891	55,464	54,775	47,610	44,491
2	Additional Tier 1 capital (AT1) before TLAC adjustments	6,230	5,220	5,124	4,871	5,475
3	AT1 ineligible as TLAC as issued out of subsidiaries to third parties	-	-	-	-	-
4	Other adjustments	-	-	-	-	-
5	AT1 instruments eligible under the TLAC framework	6,230	5,220	5,124	4,871	5,475
6	Tier 2 capital (T2) before TLAC adjustments	8,188	7,449	7,439	8,569	7,235
7	Amortized portion of T2 instruments where remaining maturity > 1 year	-	-	-	-	5
8	T2 capital ineligible as TLAC as issued out of subsidiaries to third parties	-	-	-	-	-
9	Other adjustments	-	-	-	-	-
10	T2 instruments eligible under the TLAC framework	8,188	7,449	7,439	8,569	7,240
11	TLAC arising from regulatory capital	75,309	68,133	67,338	61,050	57,206
Non-regulatory capital elements of TLAC						
12	External TLAC instruments issued directly by the Bank and subordinated to excluded liabilities	-	-	-	-	-
13	External TLAC instruments issued directly by the Bank which are not subordinated to excluded liabilities but meet all other TLAC term sheet requirements	45,554	44,568	37,889	35,909	33,238
14	Of which: amount eligible as TLAC after application of the caps	-	-	-	-	-
15	External TLAC instruments issued by funding vehicles prior to January 1, 2022	-	-	-	-	-
16	Eligible ex ante commitments to recapitalize a G-SIB in resolution	-	-	-	-	-
17	TLAC arising from non-regulatory capital instruments before adjustments	45,554	44,568	37,889	35,909	33,238
Non-regulatory capital elements of TLAC: adjustments						
18	TLAC before deductions	120,863	112,701	105,227	96,959	90,444
19	Deductions of exposures between MPE resolution groups that correspond to items eligible for TLAC (not applicable to SPE G-SIBs and D-SIBs)	-	-	-	-	-
20	Deduction of investments in own other TLAC liabilities	(200)	(167)	(87)	(70)	(91)
21	Other adjustments to TLAC	-	-	-	-	-
22	TLAC available after deductions	120,663	112,534	105,140	96,889	90,353
Risk-weighted assets and leverage exposure measure for TLAC purposes						
23	Total risk-weighted assets adjusted as permitted under the TLAC regime	363,997	351,711	342,287	337,652	325,433
24	Leverage exposure measure	1,189,990	1,144,101	1,111,094	1,115,676	976,690
TLAC ratios and buffers						
25	TLAC Ratio (as a percentage of risk-weighted assets adjusted as permitted under the TLAC regime)	33.1 %	32.0 %	30.7 %	28.7 %	27.8 %
26	TLAC Leverage Ratio (as a percentage of leverage exposure)	10.1 %	9.8 %	9.5 %	8.7 %	9.3 %
27	CET1 (as a percentage of risk-weighted assets) available after meeting the resolution group's minimum capital and TLAC requirements (2)	12.2 %	11.3 %	11.5 %	9.5 %	n.a.
28	Institution-specific buffer (capital conservation buffer plus countercyclical buffer plus higher loss absorbency, expressed as a percentage of risk-weighted assets)	3.5 %	3.5 %	3.5 %	3.5 %	3.5 %
29	Of which: capital conservation buffer	2.5 %	2.5 %	2.5 %	2.5 %	2.5 %
30	Of which: bank specific countercyclical buffer	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
31	Of which: D-SIB / G-SIB buffer	1.0 %	1.0 %	1.0 %	1.0 %	1.0 %

(1) BMO Financial Group uses the Single Point of Entry approach whereby the parent bank is the single resolution entity on which the resolution measures are applied.

TLAC1 is reported on a consolidated basis excluding insurance subsidiaries.

(2) Effective Q1 2022 onward.

**TLAC3 - RESOLUTION ENTITY - CREDITOR RANKING AT
LEGAL ENTITY LEVEL (1)**

(\$ millions)

Q4 2022							
	Creditor ranking						Sum 1 to 6
	1 (most junior)	2	3	4	5	6 (most senior)	
1 Description of creditor ranking	Common shares	Preferred shares	Additional Tier 1 Instruments	Subordinated debt	Bail-in debt (2)	Other liabilities (3)	
2 Total capital and liabilities net of credit risk mitigation	17,744	2,650	3,658	8,714	56,248	-	89,014
3 Subset of row 2 that are excluded liabilities	-	-	-	150	168	-	318
4 Total capital and liabilities less excluded liabilities (row 2 minus row 3)	17,744	2,650	3,658	8,564	56,080	-	88,696
5 Subset of row 4 that are potentially eligible as TLAC	17,744	2,650	3,658	8,564	49,996	-	82,612
6 Subset of row 5 with 1 year ≤ residual maturity < 2 years	-	-	-	-	17,960	-	17,960
7 Subset of row 5 with 2 years ≤ residual maturity < 5 years	-	-	-	-	25,506	-	25,506
8 Subset of row 5 with 5 years ≤ residual maturity < 10 years	-	-	-	5,158	1,072	-	6,230
9 Subset of row 5 with residual maturity ≥ 10 years, but excluding perpetual securities	-	-	3,000	3,406	5,458	-	11,864
10 Subset of row 5 that is perpetual securities	17,744	2,650	658	-	-	-	21,052

(1) Instruments are reported at nominal values.

(2) Under the Bail-in Regime, Bail-in Debt, which would ordinarily rank equally to Other Liabilities in liquidation, is subject to conversion, in whole or in part, into common shares under statutory resolution powers whereas Other Liabilities are not subject to such conversion.

(3) Completion of this column is not required by OSFI at this time.

LR1 - SUMMARY COMPARISON OF ACCOUNTING ASSETS VS. LEVERAGE RATIO EXPOSURE MEASURE

(\$ millions)		Q4 2022	Q3 2022	Q2 2022	Q1 2022	Q4 2021
1	Total consolidated assets as per published financial statements	1,139,199	1,068,338	1,041,565	1,023,172	988,175
2	Adjustment for investments in banking, financial, insurance or commercial entities that are consolidated for accounting purposes but outside the scope of regulatory consolidation	(11,430)	(11,840)	(11,749)	(12,952)	(13,173)
3	Adjustment for securitized exposures that meet the operational requirements for the recognition of risk transference	(9,807)	(6,974)	(7,015)	(6,486)	(7,451)
4	Adjustment for fiduciary assets recognized on the balance sheet pursuant to the operative accounting framework but excluded from the leverage ratio exposure measure	-	-	-	-	-
5	Adjustments for derivative financial instruments	(11,227)	1,567	3,681	15,570	10,393
6	Adjustment for securities financing transactions (i.e. repo assets and similar secured lending)	5,742	9,381	10,874	8,022	6,060
7	Adjustment for off-balance sheet items (i.e. credit equivalent amounts of off-balance sheet exposures)	162,968	153,708	145,033	141,557	137,983
8	Other adjustments (1)	(85,455)	(70,079)	(71,295)	(53,207)	(145,297)
9	Leverage Ratio Exposure Measure	1,189,990	1,144,101	1,111,094	1,115,676	976,690

LR2 - LEVERAGE RATIO COMMON DISCLOSURE

(\$ millions except as noted)		Leverage ratio framework				
		Q4 2022	Q3 2022	Q2 2022	Q1 2022	Q4 2021
On-balance sheet exposures						
1	On-balance sheet items (excluding derivatives, SFTs and grandfathered securitization exposures but including collateral) (1)	874,024	836,519	803,792	805,333	686,364
2	Gross up for derivatives collateral provided where deducted from the balance sheet assets pursuant to the operative accounting framework	-	-	-	-	-
3	(Deductions of receivables assets for cash variation margin provided in derivative transactions)	(9,606)	(6,570)	(5,689)	(4,130)	(3,487)
4	(Asset amounts deducted in determining transitional Tier 1 capital)	(2,870)	(5,179)	(4,907)	(7,076)	(8,203)
5	Total on-balance sheet exposures (excluding derivatives and SFTs) (sum of lines 1 to 4)	861,548	824,770	793,196	794,127	674,674
Derivative exposures						
6	Replacement cost associated with all derivative transactions (2)	28,697	28,818	35,460	29,546	27,565
7	Add-on amounts for potential future exposure associated with all derivative transactions (3)	23,261	23,600	25,331	26,491	25,165
8	(Exempted central counterparty-leg of client cleared trade exposures)	(5,678)	(4,712)	(5,712)	(1,677)	(2,230)
9	Adjusted effective notional amount of written credit derivatives	43,117	36,745	34,886	28,784	27,415
10	(Adjusted effective notional offsets and add-on deductions for written credit derivatives)	(42,862)	(36,600)	(34,775)	(28,618)	(27,324)
11	Total derivative exposures (sum of lines 6 to 10)	46,535	47,851	55,190	54,526	50,591
Securities financing transaction exposures						
12	Gross SFT assets recognized for accounting purposes (with no recognition of netting), after adjusting for sale accounting transactions	116,311	111,014	108,757	120,697	108,800
13	(Netted amounts of cash payables and cash receivables of gross SFT assets)	(7,464)	(6,458)	(5,863)	(7,836)	(6,753)
14	Counterparty credit risk (CCR) exposure for SFTs	10,091	13,216	14,781	12,605	11,395
15	Agent transaction exposures	-	-	-	-	-
16	Total securities financing transaction exposures (sum of lines 12 to 15)	118,938	117,772	117,675	125,466	113,442
Other off-balance sheet exposures						
17	Off-balance sheet exposure at gross notional amount	479,297	464,540	445,368	437,673	429,219
18	(Adjustments for conversion to credit equivalent amounts)	(316,328)	(310,832)	(300,335)	(296,116)	(291,236)
19	Off-balance sheet items (sum of lines 17 and 18)	162,969	153,708	145,033	141,557	137,983
Capital and Total Exposures						
20	Tier 1 capital	67,121	60,684	59,899	52,481	49,966
20a	Tier 1 Capital with transitional arrangements for ECL provisioning not applied	66,965	60,534	59,766	52,329	49,640
21	Total Exposures (sum of lines 5, 11, 16 and 19)	1,189,990	1,144,101	1,111,094	1,115,676	976,690
Leverage Ratios						
22	Basel III leverage ratio	5.6%	5.3%	5.4%	4.7%	5.1%
22a	Leverage ratio with transitional arrangements for ECL provisioning not applied	5.6%	5.3%	5.4%	4.7%	5.1%

(1) The original temporary exclusions announced by OSFI in April 2020 were updated in August 2021 to limit the exclusions to central bank reserves effective Q1 2022.

(2) Represents replacement cost after applying alpha equal to 1.4.

(3) Represents potential future exposure after applying alpha equal to 1.4.

OV1 - OVERVIEW OF RWA (1)

(\$ millions)		RWA (2)					Minimum capital requirements
		Q4 2022	Q3 2022	Q2 2022	Q1 2022	Q4 2021	Q4 2022
		a	b	c	d	e	f
1	Credit risk (excluding counterparty credit risk (CCR))	255,404	254,484	240,477	248,112	237,703	20,432
2	Of which standardized approach (SA)	21,667	27,285	25,820	26,561	37,388	1,733
3	Of which internal rating-based (IRB) approach	233,737	227,199	214,657	221,551	200,315	18,699
4	Counterparty credit risk	15,034	17,144	19,344	18,941	18,047	1,203
5	Of which standardized approach for counterparty credit risk (SA-CCR)	7,618	8,428	9,584	9,521	9,703	609
6	Of which internal model method (IMM)	-	-	-	-	-	-
6a	Of which comprehensive approach for credit risk mitigation (for SFTs)	2,869	3,844	4,179	3,989	4,247	230
6b	Of which CVA capital charge	3,633	4,077	4,804	4,378	3,317	291
6c	Of which exposures to QCCP	914	795	777	1,053	780	73
7	Equity positions in banking book under market-based approach	-	-	-	-	-	-
8	Equity investments in funds – look-through approach	2,196	1,989	2,365	1,407	499	176
9	Equity investments in funds – mandate-based approach	2,538	2,420	2,303	2,063	1,828	203
10	Equity investments in funds – fall-back approach	-	-	-	-	188	-
11	Settlement risk	71	3	2	17	-	6
12	Securitization exposures in banking book	9,530	7,136	6,717	4,340	4,570	763
13	Of which securitization internal ratings-based approach (SEC-IRBA)	8,073	5,753	5,544	3,333	3,394	646
14	Of which securitization external ratings-based approach (SEC-ERBA), including internal assessment approach (IAA)	136	144	145	136	140	11
15	Of which securitization standardized approach (SEC-SA)	1,321	1,239	1,028	871	1,036	106
16	Market risk	13,522	14,551	12,736	12,859	12,066	1,081
17	Of which standardized approach (SA) (3)	681	679	531	369	345	54
18	Of which internal model approaches (IMM)	12,841	13,872	12,205	12,490	11,721	1,027
19	Operational risk	42,353	41,827	41,221	40,157	40,509	3,388
20	Of which Basic Indicator Approach	-	-	-	-	-	-
21	Of which Standardized Approach	42,353	41,827	41,221	40,157	40,509	3,388
22	Of which Advanced Measurement Approach	-	-	-	-	-	-
23	Amounts below the thresholds for deduction (subject to 250% risk weight)	10,751	9,613	9,274	9,756	10,023	860
24	Floor adjustment (4)	12,598	2,544	7,848	-	-	1,008
25	Total	363,997	351,711	342,287	337,652	325,433	29,120

- (1) RWA were \$364.0 billion as at October 31, 2022, an increase from \$351.7 billion as at July 31, 2022. RWA were higher, primarily due to the impact of foreign exchange movements. Increased asset size, driven by lending growth, was largely offset by risk transfer transactions.
- (2) The 1.06 AIRB scaling factor is applied to the RWA amounts as applicable.
- (3) Standardized Approach market risk RWA reflects specific risk on securitization positions in the trading book.
- (4) The Bank is subject to capital floor requirements as prescribed in OSFI's CAR Guidelines. Total RWA is increased by a floor adjustment amount, which is calculated based on the Standardized methodology.

RISK-WEIGHTED ASSETS BY OPERATING GROUPS

		LINE				
(\$ millions)	#	Q4 2022	Q3 2022	Q2 2022	Q1 2022	Q4 2021
Canadian Personal and Commercial Banking	1	110,994	110,496	105,059	105,089	101,418
U.S. Personal and Commercial Banking	2	99,701	95,168	92,188	95,790	93,717
BMO Wealth Management	3	27,021	26,475	26,058	24,994	24,354
BMO Capital Markets	4	98,380	102,632	98,215	97,964	91,445
Corporate Services, including Technology and Operations	5	27,901	16,940	20,767	13,815	14,499
Total Risk-Weighted Assets	6	363,997	351,711	342,287	337,652	325,433

L11 - DIFFERENCES BETWEEN ACCOUNTING AND REGULATORY SCOPES OF CONSOLIDATION AND MAPPING OF FINANCIAL STATEMENTS WITH REGULATORY RISK CATEGORIES

(\$ millions)		Q4 2022						
		Carrying values as reported in published financial statements	Carrying values under scope of regulatory consolidation (1)	Carrying values of items:				
				Subject to credit risk framework	Subject to counterparty credit risk framework	Subject to the securitization framework	Subject to the market risk framework	Not subject to capital requirements or subject to deduction from capital
LINE	#	a	b	c	d	e	f	g
Assets								
Cash and Cash Equivalents	1	87,466	87,398	87,398	-	-	-	-
Interest Bearing Deposits with Banks	2	5,734	5,728	5,725	-	-	3	-
Securities	3	273,262	264,999	155,905	-	1,575	106,122	1,397
Securities Borrowed or Purchased Under Resale Agreements	4	113,194	113,194	-	113,194	-	-	-
Loans								
Residential mortgages	5	148,880	148,880	148,880	-	-	-	-
Consumer instalment and other personal	6	86,103	86,103	82,963	-	57	-	3,083
Credit cards	7	9,663	9,663	2,302	-	1,890	-	5,471
Business and government	8	309,310	309,018	277,324	2,889	28,645	3,426	-
Allowance for credit losses	9	(2,617)	(2,617)	(21)	-	(1)	-	(2,595)
Other Assets								
Derivative instruments	10	48,160	48,156	-	48,156	-	45,537	-
Customers' liability under acceptances	11	13,235	13,235	13,235	-	-	-	-
Premises and equipment	12	4,841	4,746	4,746	-	-	-	-
Goodwill	13	5,285	5,285	-	-	-	-	5,285
Intangible assets	14	2,193	2,193	-	-	-	-	2,193
Current tax assets	15	1,421	1,421	1,421	-	-	-	-
Deferred tax assets	16	1,175	1,186	1,175	-	-	-	11
Other	17	31,894	29,132	10,307	14,583	-	2,996	1,246
Total assets	18	1,139,199	1,127,720	791,360	178,822	32,166	158,084	16,091
Liabilities								
Deposits	19	769,478	769,478	-	-	-	26,987	742,491
Other Liabilities								
Derivative instruments	20	59,956	59,797	-	59,797	-	46,818	-
Acceptances	21	13,235	13,235	-	-	-	-	13,235
Securities sold but not yet purchased	22	40,979	40,979	-	-	-	40,979	-
Securities lent or sold under repurchase agreements	23	103,963	103,963	-	103,963	-	-	-
Securitization and structured entities' liabilities	24	27,068	27,068	-	-	-	-	27,068
Current tax liabilities	25	425	411	-	-	-	-	411
Deferred tax liabilities	26	102	102	-	-	-	-	102
Other	27	44,805	33,499	-	-	-	-	33,499
Subordinated Debt	28	8,150	8,150	-	-	-	-	8,150
Total liabilities	29	1,068,161	1,056,682	-	163,760	-	114,784	824,956

(1) Balance sheet under regulatory scope does not include the following entities: BMO Life Insurance Company and BMO Reinsurance Limited. BMO Life Insurance Company (\$12,969 million assets and \$1,583 million equity) covers the development and marketing of individual life, critical illness and annuity products as well as segregated funds. It also offers group creditor and travel insurance to bank customers in Canada. BMO Reinsurance Limited (\$256 million assets and \$113 million equity) covers the reinsurance of life, health and disability insurance risks. The business reinsured is written by insurers and reinsurers principally in North America and Europe.

LI2 - MAIN SOURCES OF DIFFERENCES BETWEEN REGULATORY EXPOSURE AMOUNTS AND CARRYING VALUES IN FINANCIAL STATEMENTS

(\$ millions)		Q4 2022				
		Total	Items subject to:			
			Credit risk framework	Counterparty credit risk framework	Securitization framework	Market risk framework
		a	b	c	d	e
1	Asset carrying value amount under scope of regulatory consolidation (as per template L11) (1)	1,111,629	791,360	178,822	32,166	158,084
2	Liabilities carrying value amount under regulatory scope of consolidation (as per template L11) (1)	231,726	-	163,760	-	114,784
3	Total net amount under regulatory scope of consolidation	879,903	791,360	15,062	32,166	43,300
4	Off-balance sheet amounts	299,316	216,827	48,174	34,315	-
5	Differences due to different netting rules and other adjustments for derivatives, other than those already included in row 2	27,432	882	26,550	-	-
6	Differences due to consideration of provisions	408	408	-	-	-
7	Exposures related to liability repo-style transactions	207,927	-	207,927	-	-
8	Potential future exposure on derivatives	25,580	-	25,580	-	-
9	Differences due to consideration of CRM	(240,378)	-	(237,020)	(3,358)	-
10	Exposure amounts considered for regulatory purposes (2)	1,200,188	1,009,477	86,273	63,123	43,300

(1) Carrying value under scope of regulatory consolidation (column b from L11) less amounts not subject to capital requirements or subject to deduction from capital (column g from L11).

(2) Exposure amounts considered for regulatory purposes represent the exposure at default amounts post-CRM and post-CCF, with the exception of the Market Risk framework that is reported at accounting carrying value.

Explanations of differences between accounting and regulatory exposure amounts

The table above illustrates the main sources of differences between the financial statements' carrying value amounts and the exposure at default post-CRM and post-CCF used for regulatory purposes.

Off-balance sheet amounts include credit exposures on committed undrawn amounts of loans and other off-balance sheet arrangements, certain repo-style transactions, off-balance sheet securitization exposures, and other off-balance sheet items.

Differences due to different netting rules and other adjustments for derivatives under the credit risk framework relate to the grossing up of deferred tax assets for regulatory exposure amount.

Under the counterparty credit risk framework, the difference relates to the grossing up of derivatives for differences in netting rules allowed under IFRS and SA-CCR, inclusion of 1.4 alpha in replacement cost, and also the application of financial collateral in the calculation of regulatory exposure amount.

Differences due to consideration of provisions relates to the grossing up of AIRB exposures for the amount related to partial write-offs.

Exposures related to liability repo-style transactions relate to the grossing up of liability repo-style transactions.

Potential future exposure on derivatives consists of the add-on factors for the expected volatility of the price, rate or index underlying derivative instruments, after applying alpha equal to 1.4.

Differences due to consideration of CRM consist of the application of credit risk mitigation techniques to arrive at the net exposure at default in accordance with OSFI's CAR Guideline, Chapter 5, Credit Risk Mitigation.

CR1 - CREDIT QUALITY OF ASSETS (1) (2)

LINE #		Q4 2022						
		Gross carrying values of		Allowances / impairments (5)	Of which: ECL accounting provisions for credit losses on SA exposures		Of which: ECL accounting provisions for credit losses on IRB exposures	Net values (a + b - c)
		Defaulted exposures (3) (4)	Non-defaulted exposures		Allocated in regulatory category of Specific	Allocated in regulatory category of General		
		a	b	c	d	e	f	g
Loans	1	2,035	522,669	2,267	21	30	2,216	522,437
Debt securities	2	-	148,638	3	-	-	3	148,635
Off-balance sheet exposures	3	292	204,666	356	6	9	341	204,602
Total	4	2,327	875,973	2,626	27	39	2,560	875,674

CR1 - CREDIT QUALITY OF ASSETS (1) (2)

LINE #		Q3 2022						
		Gross carrying values of		Allowances / impairments (5)	Of which: ECL accounting provisions for credit losses on SA exposures		Of which: ECL accounting provisions for credit losses on IRB exposures	Net values (a + b - c)
		Defaulted exposures (3) (4)	Non-defaulted exposures		Allocated in regulatory category of Specific	Allocated in regulatory category of General		
		a	b	c	d	e	f	g
Loans	1	1,996	503,977	2,158	22	79	2,057	503,815
Debt securities	2	-	139,329	6	-	-	6	139,323
Off-balance sheet exposures	3	400	203,723	354	6	12	336	203,769
Total	4	2,396	847,029	2,518	28	91	2,399	846,907

CR1 - CREDIT QUALITY OF ASSETS (1) (2)

LINE #		Q2 2022						
		Gross carrying values of		Allowances / impairments (5)	Of which: ECL accounting provisions for credit losses on SA exposures		Of which: ECL accounting provisions for credit losses on IRB exposures	Net values (a + b - c)
		Defaulted exposures (3) (4)	Non-defaulted exposures		Allocated in regulatory category of Specific	Allocated in regulatory category of General		
		a	b	c	d	e	f	g
Loans	1	2,171	484,098	2,140	26	72	2,042	484,129
Debt securities	2	-	139,072	3	-	-	3	139,069
Off-balance sheet exposures	3	443	191,669	372	7	11	354	191,740
Total	4	2,614	814,839	2,515	33	83	2,399	814,938

CR1 - CREDIT QUALITY OF ASSETS (1) (2)

LINE #		Q1 2022						
		Gross carrying values of		Allowances / impairments (5)	Of which: ECL accounting provisions for credit losses on SA exposures		Of which: ECL accounting provisions for credit losses on IRB exposures	Net values (a + b - c)
		Defaulted exposures (3) (4)	Non-defaulted exposures		Allocated in regulatory category of Specific	Allocated in regulatory category of General		
		a	b	c	d	e	f	g
Loans	1	2,285	477,776	2,219	23	59	2,137	477,842
Debt securities	2	-	139,725	3	-	-	3	139,722
Off-balance sheet exposures	3	508	196,058	371	7	10	354	196,195
Total	4	2,793	813,559	2,593	30	69	2,494	813,759

CR1 - CREDIT QUALITY OF ASSETS (1) (2)

LINE #		Q4 2021						
		Gross carrying values of		Allowances / impairments (5)	Of which: ECL accounting provisions for credit losses on SA exposures		Of which: ECL accounting provisions for credit losses on IRB exposures	Net values (a + b - c)
		Defaulted exposures (3) (4)	Non-defaulted exposures		Allocated in regulatory category of Specific	Allocated in regulatory category of General		
		a	b	c	d	e	f	g
Loans	1	2,204	453,167	2,332	41	106	2,185	453,039
Debt securities	2	-	111,686	3	-	-	3	111,683
Off-balance sheet exposures	3	682	191,755	382	7	36	339	192,055
Total	4	2,886	756,608	2,717	48	142	2,527	756,777

(1) Excludes positions subject to Counterparty Credit Risk and Securitization regulatory frameworks.

(2) The carrying value of our renegotiated loans was \$573 million as at October 31, 2022 (\$574 million as at July 31, 2022, \$586 million as at April 30, 2022, \$618 million as at January 31, 2022, and \$659 million as at October 31, 2021). Renegotiated loans of \$305 million were classified as performing as at October 31, 2022 (\$331 million as at July 31, 2022, \$321 million as at April 30, 2022, \$293 million as at January 31, 2022, and \$278 million as at October 31, 2021).

(3) Exposures are considered to be in default when they are 90 days past due with the following exceptions: (i) credit card loans which are immediately written off when principal or interest payments are 180 days past due; and (ii) residential mortgages guaranteed by the Government of Canada that are less than one year past due.

(4) There were no defaulted debt securities.

(5) The approach for establishing and maintaining allowance for credit losses is based on IFRS requirements. Under capital reporting, general allowance refers to allowances on performing loans (Stage 1 and Stage 2), and specific allowance refers to allowances on impaired loans (Stage 3).

CR2 - CHANGES IN STOCK OF DEFAULTED LOANS AND DEBT SECURITIES (1) (2)

(\$ millions)

Q4 2022**a**

1	Defaulted loans and debt securities at end of the previous financial reporting period	1,996
2	Loans and debt securities that have defaulted since the last reporting period	481
3	Returned to non-defaulted status	(222)
4	Amounts written off	(119)
5	Other charges	(101)
6	Defaulted loans and debt securities at end of the reporting period	2,035

CR2 - CHANGES IN STOCK OF DEFAULTED LOANS AND DEBT SECURITIES (1) (2)

(\$ millions)

Q3 2022**a**

1	Defaulted loans and debt securities at end of the previous financial reporting period	2,171
2	Loans and debt securities that have defaulted since the last reporting period	327
3	Returned to non-defaulted status	(155)
4	Amounts written off	(93)
5	Other charges	(254)
6	Defaulted loans and debt securities at end of the reporting period	1,996

CR2 - CHANGES IN STOCK OF DEFAULTED LOANS AND DEBT SECURITIES (1) (2)

(\$ millions)

Q2 2022**a**

1	Defaulted loans and debt securities at end of the previous financial reporting period	2,285
2	Loans and debt securities that have defaulted since the last reporting period	325
3	Returned to non-defaulted status	(133)
4	Amounts written off	(74)
5	Other charges	(232)
6	Defaulted loans and debt securities at end of the reporting period	2,171

CR2 - CHANGES IN STOCK OF DEFAULTED LOANS AND DEBT SECURITIES (1) (2)

(\$ millions)

Q1 2022**a**

1	Defaulted loans and debt securities at end of the previous financial reporting period	2,204
2	Loans and debt securities that have defaulted since the last reporting period	452
3	Returned to non-defaulted status	(136)
4	Amounts written off	(79)
5	Other charges	(156)
6	Defaulted loans and debt securities at end of the reporting period	2,285

CR2 - CHANGES IN STOCK OF DEFAULTED LOANS AND DEBT SECURITIES (1) (2)

(\$ millions)

Q4 2021**a**

1	Defaulted loans and debt securities at end of the previous financial reporting period	2,475
2	Loans and debt securities that have defaulted since the last reporting period	281
3	Returned to non-defaulted status	(153)
4	Amounts written off	(105)
5	Other charges	(294)
6	Defaulted loans and debt securities at end of the reporting period	2,204

(1) There were no defaulted debt securities.

(2) Defaulted balances exclude off-balance sheet exposures.

CR3 - CREDIT RISK MITIGATION TECHNIQUES - OVERVIEW (1) (2) (3) (4) (5) (\$ millions)		Q4 2022				
		Unsecured exposures: carrying amount	Exposures to be secured	Exposures secured by collateral	Exposures secured by financial guarantees	Exposures secured by credit derivatives
		a	b1	b	d	f
1	Loans	476,219	46,218	-	46,142	-
2	Debt securities	148,635	-	-	-	-
3	Total	624,854	46,218	-	46,142	-
4	Of which: defaulted	1,357	173	-	115	-

CR3 - CREDIT RISK MITIGATION TECHNIQUES - OVERVIEW (1) (2) (3) (4) (5) (\$ millions)		Q3 2022				
		Unsecured exposures: carrying amount	Exposures to be secured	Exposures secured by collateral	Exposures secured by financial guarantees	Exposures secured by credit derivatives
		a	b1	b	d	f
1	Loans	453,450	50,365	-	45,692	-
2	Debt securities	139,323	-	-	-	-
3	Total	592,773	50,365	-	45,692	-
4	Of which: defaulted	1,419	131	-	111	-

CR3 - CREDIT RISK MITIGATION TECHNIQUES - OVERVIEW (1) (2) (3) (4) (5) (\$ millions)		Q2 2022				
		Unsecured exposures: carrying amount	Exposures to be secured	Exposures secured by collateral	Exposures secured by financial guarantees	Exposures secured by credit derivatives
		a	b1	b	d	f
1	Loans	439,143	44,986	-	44,775	-
2	Debt securities	139,069	-	-	-	-
3	Total	578,212	44,986	-	44,775	-
4	Of which: defaulted	1,507	198	-	120	-

CR3 - CREDIT RISK MITIGATION TECHNIQUES - OVERVIEW (1) (2) (3) (4) (5) (\$ millions)		Q1 2022				
		Unsecured exposures: carrying amount	Exposures to be secured	Exposures secured by collateral	Exposures secured by financial guarantees	Exposures secured by credit derivatives
		a	b1	b	d	f
1	Loans	427,094	50,748	-	46,114	-
2	Debt securities	139,722	-	-	-	-
3	Total	566,816	50,748	-	46,114	-
4	Of which: defaulted	1,637	208	-	129	-

CR3 - CREDIT RISK MITIGATION TECHNIQUES - OVERVIEW (1) (2) (3) (4) (5) (\$ millions)		Q4 2021				
		Unsecured exposures: carrying amount	Exposures to be secured	Exposures secured by collateral	Exposures secured by financial guarantees	Exposures secured by credit derivatives
		a	b1	b	d	f
1	Loans	401,066	51,973	-	47,669	-
2	Debt securities	111,683	-	-	-	-
3	Total	512,749	51,973	-	47,669	-
4	Of which: defaulted	1,538	215	-	140	-

(1) Excludes positions subject to Counterparty Credit Risk and Securitization regulatory frameworks.

(2) There were no defaulted debt securities.

(3) Secured exposures include exposures where credit risk mitigation techniques are used to reduce capital requirements in accordance with OSFI's CAR Guideline, Chapter 5, Credit Risk Mitigation. Where collateral is reflected in the risk parameters (PDs and LGDs) for AIRB exposures and risk weights for exposures under Standardized Approach, the carrying amount is reported as an unsecured exposure.

(4) Loans and Debt securities balances are net of allowance for credit losses on performing loans and impaired loans (excluding those related to off-balance sheet instruments and undrawn commitments).

(5) Defaulted balances are net of allowance for credit losses on impaired loans, excluding off-balance sheet instruments and undrawn commitments.

CR4 - STANDARDIZED APPROACH - CREDIT RISK EXPOSURE AND CREDIT RISK**MITIGATION (CRM) EFFECTS (1) (2)**

(\$ millions except as noted)

Asset classes		Q4 2022					
		Exposures before CCF and CRM		Exposures post CCF and CRM		RWA and RWA density	
		On-balance sheet amount	Off-balance sheet amount	On-balance sheet amount	Off-balance sheet amount	RWA	RWA density
		a	b	c	d	e	f
1	Sovereigns and their central banks	-	-	-	-	-	-
2	Non-central government public sector entities	2	9	2	-	-	20.00%
3	Multilateral development banks	-	-	-	-	-	-
4	Banks	-	24	-	13	3	20.00%
5	Securities firms	24	718	24	19	9	20.00%
6	Corporates	1,389	927	1,389	14	1,400	99.73%
7	Regulatory retail portfolios	5,903	2,784	5,903	303	4,448	71.69%
8	Secured by residential property	466	44	466	29	200	40.46%
9	Secured by commercial real estate	5	-	5	-	5	100.00%
10	Equity	2,414	651	2,414	325	2,094	76.44%
11	Defaulted exposures	54	4	54	3	70	122.87%
12	Higher-risk categories (3)	92	41	92	18	165	150.00%
13	Other assets	11,550	-	11,550	-	13,273	114.92%
14	Total	21,899	5,202	21,899	724	21,667	95.78%

CR4 - STANDARDIZED APPROACH - CREDIT RISK EXPOSURE AND CREDIT RISK**MITIGATION (CRM) EFFECTS (1) (2)**

(\$ millions except as noted)

Asset classes		Q3 2022					
		Exposures before CCF and CRM		Exposures post CCF and CRM		RWA and RWA density	
		On-balance sheet amount	Off-balance sheet amount	On-balance sheet amount	Off-balance sheet amount	RWA	RWA density
		a	b	c	d	e	f
1	Sovereigns and their central banks	-	-	-	-	-	-
2	Non-central government public sector entities	1	2	1	-	-	20.00%
3	Multilateral development banks	-	-	-	-	-	-
4	Banks	-	37	-	19	4	20.00%
5	Securities firms	-	698	-	18	4	20.00%
6	Corporates	7,144	2,712	7,144	186	7,247	98.88%
7	Regulatory retail portfolios	5,703	3,114	5,703	355	4,296	70.90%
8	Secured by residential property	469	54	469	33	207	41.03%
9	Secured by commercial real estate	5	-	5	-	5	100.00%
10	Equity	2,257	608	2,257	304	1,951	76.19%
11	Defaulted exposures	80	4	80	-	99	129.28%
12	Higher-risk categories (3)	89	132	89	63	230	150.00%
13	Other assets	11,197	-	11,197	-	13,242	118.26%
14	Total	26,945	7,361	26,945	978	27,285	97.71%

(1) Credit Risk excludes Counterparty Credit Risk, Securitization, Equity Investment in Funds, Settlement Risk and amounts below the thresholds for deduction subject to 250% risk weight.

(2) Exposure amounts are net of Stage 3 allowance for credit losses.

(3) Non-defaulted exposures with risk weights equal to 150% (e.g. rated BB- or lower).

CR4 - STANDARDIZED APPROACH - CREDIT RISK EXPOSURE AND CREDIT RISK**MITIGATION (CRM) EFFECTS (1) (2)**

(\$ millions except as noted)

Asset classes		Q2 2022					
		Exposures before CCF and CRM		Exposures post CCF and CRM		RWA and RWA density	
		On-balance sheet amount	Off-balance sheet amount	On-balance sheet amount	Off-balance sheet amount	RWA	RWA density
		a	b	c	d	e	f
1	Sovereigns and their central banks	-	-	-	-	-	-
2	Non-central government public sector entities	1	4	1	-	-	20.00%
3	Multilateral development banks	-	-	-	-	-	-
4	Banks	1	35	1	19	4	20.00%
5	Securities firms	16	645	16	10	5	20.00%
6	Corporates	6,804	2,800	6,804	187	6,902	98.73%
7	Regulatory retail portfolios	5,747	4,038	5,747	382	4,363	71.17%
8	Secured by residential property	508	75	507	36	224	41.25%
9	Secured by commercial real estate	5	-	6	-	6	100.00%
10	Equity	2,093	546	2,094	272	1,867	78.91%
11	Defaulted exposures	76	15	74	-	93	128.04%
12	Higher-risk categories (3)	99	106	99	51	225	150.00%
13	Other assets	9,722	-	9,722	-	12,131	124.78%
14	Total	25,072	8,264	25,071	957	25,820	99.20%

CR4 - STANDARDIZED APPROACH - CREDIT RISK EXPOSURE AND CREDIT RISK**MITIGATION (CRM) EFFECTS (1) (2)**

(\$ millions except as noted)

Asset classes		Q1 2022					
		Exposures before CCF and CRM		Exposures post CCF and CRM		RWA and RWA density	
		On-balance sheet amount	Off-balance sheet amount	On-balance sheet amount	Off-balance sheet amount	RWA	RWA density
		a	b	c	d	e	f
1	Sovereigns and their central banks	-	-	-	-	-	-
2	Non-central government public sector entities	1	5	1	-	-	20.00%
3	Multilateral development banks	-	-	-	-	-	-
4	Banks	1	34	1	19	4	20.00%
5	Securities firms	-	654	-	10	2	20.00%
6	Corporates	7,541	3,728	7,542	504	7,928	98.55%
7	Regulatory retail portfolios	5,382	3,753	5,383	339	4,056	70.92%
8	Secured by residential property	553	92	552	36	244	41.42%
9	Secured by commercial real estate	9	2	9	-	9	100.00%
10	Equity	1,963	498	1,963	249	1,711	77.34%
11	Defaulted exposures	97	16	95	-	123	129.01%
12	Higher-risk categories (3)	78	115	79	54	199	150.00%
13	Other assets	10,406	-	10,406	-	12,285	118.06%
14	Total	26,031	8,897	26,031	1,211	26,561	97.51%

CR4 - STANDARDIZED APPROACH - CREDIT RISK EXPOSURE AND CREDIT RISK**MITIGATION (CRM) EFFECTS (1) (2)**

(\$ millions except as noted)

Asset classes		Q4 2021					
		Exposures before CCF and CRM		Exposures post CCF and CRM		RWA and RWA density	
		On-balance sheet amount	Off-balance sheet amount	On-balance sheet amount	Off-balance sheet amount	RWA	RWA density
		a	b	c	d	e	f
1	Sovereigns and their central banks	-	-	-	-	-	-
2	Non-central government public sector entities	232	8	232	2	69	29.66%
3	Multilateral development banks	-	-	-	-	-	-
4	Banks	8	436	8	260	54	20.00%
5	Securities firms	10	676	10	20	6	20.00%
6	Corporates	13,757	13,175	13,757	4,529	17,816	97.43%
7	Regulatory retail portfolios	5,472	6,110	5,472	327	4,121	71.05%
8	Secured by residential property	574	101	574	38	255	41.67%
9	Secured by commercial real estate	270	34	270	20	290	100.00%
10	Equity	1,612	432	1,612	216	1,451	79.38%
11	Defaulted exposures	255	36	255	5	360	138.84%
12	Higher-risk categories (3)	164	241	164	104	402	150.00%
13	Other assets	10,978	-	10,978	-	12,564	114.44%
14	Total	33,332	21,249	33,332	5,521	37,388	96.23%

(1) Credit Risk excludes Counterparty Credit Risk, Securitization, Equity Investment in Funds, Settlement Risk and amounts below the thresholds for deduction subject to 250% risk weight.

(2) Exposure amounts are net of Stage 3 allowance for credit losses.

(3) Non-defaulted exposures with risk weights equal to 150% (e.g. rated BB- or lower).

CR5 - STANDARDIZED APPROACH - EXPOSURES BY ASSET CLASSES AND RISK WEIGHTS (1) (2) (3)

(\$ millions)		Q4 2022									
		Risk Weight								Total credit exposures amount (post-CCF and post-CRM)	
		0%	10%	20%	35%	50%	75%	100%	150%	Others	
Asset classes		a	b	c	d	e	f	g	h	i	j
1	Sovereigns and their central banks	-	-	-	-	-	-	-	-	-	-
2	Non-central government public sector entities	-	-	2	-	-	-	-	-	-	2
3	Multilateral development banks	-	-	-	-	-	-	-	-	-	-
4	Banks	-	-	13	-	-	-	-	-	-	13
5	Securities firms	-	-	43	-	-	-	-	-	-	43
6	Corporates	1	-	-	-	5	-	1,397	-	-	1,403
7	Regulatory retail portfolios	433	-	-	-	-	5,296	477	-	-	6,206
8	Secured by residential property	-	-	-	427	-	68	-	-	-	495
9	Secured by commercial real estate	-	-	-	-	-	-	5	-	-	5
10	Equity	492	-	340	-	-	-	1,907	-	-	2,739
11	Defaulted exposures	1	-	-	-	-	-	29	27	-	57
12	Higher-risk categories (4)	-	-	-	-	-	-	-	110	-	110
13	Other assets	1,462	-	2,253	-	-	-	7,401	-	434	11,550
14	Total	2,389	-	2,651	427	5	5,364	11,216	137	434	22,623

CR5 - STANDARDIZED APPROACH - EXPOSURES BY ASSET CLASSES AND RISK WEIGHTS (1) (2) (3)

(\$ millions)		Q3 2022									
		Risk Weight									Total credit exposures amount (post-CCF and post-CRM)
		0%	10%	20%	35%	50%	75%	100%	150%	Others	
Asset classes		a	b	c	d	e	f	g	h	i	j
1	Sovereigns and their central banks	-	-	-	-	-	-	-	-	-	-
2	Non-central government public sector entities	-	-	1	-	-	-	-	-	-	1
3	Multilateral development banks	-	-	-	-	-	-	-	-	-	-
4	Banks	-	-	19	-	-	-	-	-	-	19
5	Securities firms	-	-	18	-	-	-	-	-	-	18
6	Corporates	2	-	31	-	112	-	7,185	-	-	7,330
7	Regulatory retail portfolios	448	-	-	-	-	5,258	352	-	-	6,058
8	Secured by residential property	-	-	-	427	-	75	-	-	-	502
9	Secured by commercial real estate	-	-	-	-	-	-	5	-	-	5
10	Equity	463	-	322	-	-	-	1,776	-	-	2,561
11	Defaulted exposures	1	-	-	-	-	-	30	49	-	80
12	Higher-risk categories (4)	-	-	-	-	-	-	-	152	-	152
13	Other assets	1,484	-	1,671	-	-	-	7,619	-	423	11,197
14	Total	2,398	-	2,062	427	112	5,333	16,967	201	423	27,923

(1) Credit Risk excludes Counterparty Credit Risk, Securitization, Equity Investment in Funds, Settlement Risk and amounts below the thresholds for deduction subject to 250% risk weight.

(2) Exposure amounts are net of Stage 3 allowance for credit losses.

(3) Credit assessments by external credit rating agencies, including S&P, Moody's and DBRS, are used to determine standardized risk weights based on guidelines issued by OSFI.

(4) Non-defaulted exposures with risk weights equal to 150% (e.g. rated BB- or lower).

CR5 - STANDARDIZED APPROACH - EXPOSURES BY ASSET CLASSES AND RISK WEIGHTS (1) (2) (3)

(\$ millions)		Q2 2022									
		Risk Weight									Total credit exposures amount (post-CCF and post-CRM)
		0%	10%	20%	35%	50%	75%	100%	150%	Others	
Asset classes		a	b	c	d	e	f	g	h	i	j
1	Sovereigns and their central banks	-	-	-	-	-	-	-	-	-	-
2	Non-central government public sector entities	1	-	-	-	-	-	-	-	-	1
3	Multilateral development banks	-	-	-	-	-	-	-	-	-	-
4	Banks	-	-	20	-	-	-	-	-	-	20
5	Securities firms	-	-	26	-	-	-	-	-	-	26
6	Corporates	4	-	36	-	112	-	6,839	-	-	6,991
7	Regulatory retail portfolios	472	-	-	-	-	5,181	476	-	-	6,129
8	Secured by residential property	-	-	-	458	-	85	-	-	-	543
9	Secured by commercial real estate	-	-	-	-	-	-	6	-	-	6
10	Equity	464	-	176	-	-	-	1,726	-	-	2,366
11	Defaulted exposures	-	-	-	-	-	-	30	44	-	74
12	Higher-risk categories (4)	-	-	-	-	-	-	-	150	-	150
13	Other assets	1,421	-	1,129	-	-	-	6,760	-	412	9,722
14	Total	2,361	-	1,388	458	112	5,266	15,837	194	412	26,028

CR5 - STANDARDIZED APPROACH - EXPOSURES BY ASSET CLASSES AND RISK WEIGHTS (1) (2) (3)

(\$ millions)		Q1 2022									
		Risk Weight									Total credit exposures amount (post-CCF and post-CRM)
		0%	10%	20%	35%	50%	75%	100%	150%	Others	
Asset classes		a	b	c	d	e	f	g	h	i	j
1	Sovereigns and their central banks	-	-	-	-	-	-	-	-	-	-
2	Non-central government public sector entities	-	-	1	-	-	-	-	-	-	1
3	Multilateral development banks	-	-	-	-	-	-	-	-	-	-
4	Banks	-	-	20	-	-	-	-	-	-	20
5	Securities firms	-	-	10	-	-	-	-	-	-	10
6	Corporates	11	-	61	-	113	-	7,861	-	-	8,046
7	Regulatory retail portfolios	462	-	-	-	-	4,808	452	-	-	5,722
8	Secured by residential property	-	-	-	494	-	94	-	-	-	588
9	Secured by commercial real estate	-	-	-	-	-	-	9	-	-	9
10	Equity	459	-	174	-	-	-	1,579	-	-	2,212
11	Defaulted exposures	-	-	-	-	-	-	37	58	-	95
12	Higher-risk categories (4)	-	-	-	-	-	-	-	133	-	133
13	Other assets	1,407	-	1,703	-	-	-	6,892	-	404	10,406
14	Total	2,339	-	1,969	494	113	4,902	16,830	191	404	27,242

CR5 - STANDARDIZED APPROACH - EXPOSURES BY ASSET CLASSES AND RISK WEIGHTS (1) (2) (3)

(\$ millions)		Q4 2021									
		Risk Weight									Total credit exposures amount (post-CCF and post-CRM)
		0%	10%	20%	35%	50%	75%	100%	150%	Others	
Asset classes		a	b	c	d	e	f	g	h	i	j
1	Sovereigns and their central banks	-	-	-	-	-	-	-	-	-	-
2	Non-central government public sector entities	-	-	159	-	75	-	-	-	-	234
3	Multilateral development banks	-	-	-	-	-	-	-	-	-	-
4	Banks	-	-	268	-	-	-	-	-	-	268
5	Securities firms	-	-	30	-	-	-	-	-	-	30
6	Corporates	201	-	246	-	145	-	17,694	-	-	18,286
7	Regulatory retail portfolios	444	-	-	-	-	4,940	415	-	-	5,799
8	Secured by residential property	-	-	-	510	-	102	-	-	-	612
9	Secured by commercial real estate	-	-	-	-	-	-	290	-	-	290
10	Equity	447	-	15	-	-	-	1,366	-	-	1,828
11	Defaulted exposures	-	-	-	-	-	-	44	216	-	260
12	Higher-risk categories (4)	-	-	-	-	-	-	-	268	-	268
13	Other assets	1,525	-	1,781	-	-	-	7,278	-	394	10,978
14	Total	2,617	-	2,499	510	220	5,042	27,087	484	394	38,853

(1) Credit Risk excludes Counterparty Credit Risk, Securitization, Equity Investment in Funds, Settlement Risk and amounts below the thresholds for deduction subject to 250% risk weight.

(2) Exposure amounts are net of Stage 3 allowance for credit losses.

(3) Credit assessments by external credit rating agencies, including S&P, Moody's and DBRS, are used to determine standardized risk weights based on guidelines issued by OSFI.

(4) Non-defaulted exposures with risk weights equal to 150% (e.g. rated BB- or lower).

CR6 - IRB - CREDIT RISK EXPOSURE BY PORTFOLIO AND PD RANGE - RETAIL (1) (2) (3)

(\$ millions except as noted)

CR6 - IRB - CREDIT RISK EXPOSURE BY PORTFOLIO AND PD RANGE - RETAIL (1) (2) (3) (\$ millions except as noted)						Q4 2022											
						Original on- balance sheet gross exposure	Off-balance sheet exposures pre-CCF	Average CCF (4)	EAD post- CRM and post-CCF	Average PD (5)	Number of obligors (6)	Average LGD (7)	Average maturity (years)	RWA	RWA density	EL	Provisions
						a	b	c	d	e	f	g	h	i	j	k	l
Risk Profile	BMO Rating	PD Scale (%)	Moody's Investors Service implied equivalent	Standard & Poor's implied equivalent	LINE #												
Canadian insured residential																	
Exceptionally low to Very low		0.00 to <0.15			1	30,448	-	-	40,939	0.01 %	128,045	30.38 %		344	0.84 %	1	
Very low to Low		0.15 to <0.25			2	-	-	-	-	-	-	-		-	-	-	
Low		0.25 to <0.50			3	-	-	-	-	-	-	-		-	-	-	
Low		0.50 to <0.75			4	7,405	-	-	687	0.61 %	13,954	40.04 %		118	17.17 %	1	
Medium		0.75 to <2.50			5	2,060	-	-	1	1.32 %	5,352	40.06 %		1	63.72 %	-	
Medium to High		2.50 to <10.00			6	1,506	-	-	-	-	4,525	-		-	-	-	
High		10.00 to <100.00			7	123	-	-	-	-	575	-		-	-	-	
Default		100.00 (Default)			8	85	-	-	-	100.00 %	426	30.63 %		-	92.54 %	-	
Sub-total					9	41,627	-	-	41,627	0.02 %	152,877	30.54 %		463	1.11 %	2	8
Canadian uninsured residential																	
Exceptionally low to Very low		0.00 to <0.15			10	73,050	34,910	40.86 %	87,316	0.09 %	448,289	17.54 %		3,455	3.96 %	13	
Very low to Low		0.15 to <0.25			11	10,912	2,598	23.74 %	11,529	0.22 %	61,430	19.09 %		1,002	8.69 %	5	
Low		0.25 to <0.50			12	68	-	-	68	-	-	-		8	11.24 %	-	
Low		0.50 to <0.75			13	15,836	40	82.49 %	15,870	0.61 %	40,809	18.80 %		2,783	17.54 %	18	
Medium		0.75 to <2.50			14	10,899	721	20.67 %	11,048	1.13 %	42,816	18.60 %		2,923	26.46 %	23	
Medium to High		2.50 to <10.00			15	5,383	181	26.80 %	5,432	6.54 %	16,692	16.28 %		3,473	63.94 %	57	
High		10.00 to <100.00			16	328	28	20.75 %	334	41.87 %	2,046	14.85 %		272	81.43 %	20	
Default		100.00 (Default)			17	136	16	18.95 %	139	100.00 %	967	12.89 %		208	149.56 %	7	
Sub-total					18	116,612	38,494	39.28 %	131,736	0.73 %	613,049	17.84 %		14,124	10.72 %	143	87
Non-Canadian residential																	
Exceptionally low to Very low		0.00 to <0.15			19	1,502	6,305	58.06 %	5,163	0.04 %	42,707	43.18 %		290	5.62 %	1	
Very low to Low		0.15 to <0.25			20	6,925	191	100.11 %	7,116	0.21 %	12,277	17.87 %		561	7.88 %	3	
Low		0.25 to <0.50			21	598	217	52.62 %	713	0.37 %	6,006	44.64 %		214	30.02 %	1	
Low		0.50 to <0.75			22	196	-	-	196	0.68 %	3,778	56.68 %		113	57.68 %	1	
Medium		0.75 to <2.50			23	1,604	62	75.30 %	1,651	1.03 %	6,796	30.97 %		711	43.05 %	6	
Medium to High		2.50 to <10.00			24	491	2	111.95 %	494	3.68 %	2,482	28.37 %		429	86.86 %	6	
High		10.00 to <100.00			25	121	143	61.95 %	209	23.69 %	1,834	28.20 %		337	161.09 %	14	
Default		100.00 (Default)			26	213	-	62.69 %	213	100.00 %	2,362	35.07 %		490	230.46 %	60	
Sub-total					27	11,650	6,920	59.30 %	15,755	2.02 %	78,242	29.93 %		3,145	19.96 %	92	119
Qualifying revolving retail																	
Exceptionally low to Very low		0.00 to <0.15			28	418	39,020	56.47 %	22,452	0.04 %	2,987,398	73.67 %		502	2.24 %	7	
Very low to Low		0.15 to <0.25			29	86	2,459	75.19 %	1,935	0.17 %	292,699	90.34 %		172	8.90 %	3	
Low		0.25 to <0.50			30	2,785	15,406	41.47 %	9,174	0.28 %	964,035	63.57 %		876	9.55 %	17	
Low		0.50 to <0.75			31	8	154	87.33 %	143	0.56 %	31,285	91.93 %		34	23.71 %	1	
Medium		0.75 to <2.50			32	3,915	4,627	52.50 %	6,344	1.24 %	615,266	72.10 %		2,207	34.78 %	58	
Medium to High		2.50 to <10.00			33	1,277	1,183	84.55 %	2,277	4.67 %	378,974	82.12 %		2,228	97.85 %	86	
High		10.00 to <100.00			34	761	306	62.03 %	951	21.11 %	130,374	70.13 %		1,617	170.10 %	142	
Default		100.00 (Default)			35	63	30	39.23 %	75	100.00 %	5,206	53.47 %		216	289.28 %	35	
Sub-total					36	9,313	63,185	53.87 %	43,351	1.15 %	5,405,237	72.44 %		7,852	18.12 %	349	371
Retail small-and-medium-sized entities																	
Exceptionally low to Very low		0.00 to <0.15			37	412	2,233	78.39 %	2,466	0.06 %	50,808	60.25 %		294	11.91 %	1	
Very low to Low		0.15 to <0.25			38	-	-	-	-	-	-	-		-	-	-	
Low		0.25 to <0.50			39	1,568	2,793	77.26 %	3,674	0.39 %	62,845	65.17 %		1,534	41.77 %	9	
Low		0.50 to <0.75			40	2,082	1,042	62.85 %	2,678	0.65 %	54,688	60.38 %		1,412	52.70 %	10	
Medium		0.75 to <2.50			41	3,506	546	59.23 %	3,738	1.89 %	26,625	57.63 %		2,890	77.30 %	41	
Medium to High		2.50 to <10.00			42	3,264	144	68.59 %	3,295	4.24 %	24,659	56.17 %		2,834	86.01 %	81	
High		10.00 to <100.00			43	755	56	67.03 %	776	19.42 %	7,163	55.69 %		909	117.10 %	87	
Default		100.00 (Default)			44	204	19	84.67 %	204	100.00 %	5,218	57.00 %		980	480.86 %	59	
Sub-total					45	11,791	6,833	73.75 %	16,831	3.55 %	232,006	59.71 %		10,853	64.48 %	288	235
Other retail																	
Exceptionally low to Very low		0.00 to <0.15			46	19,855	4,310	48.29 %	22,191	0.09 %	347,384	26.17 %		1,454	6.55 %	6	
Very low to Low		0.15 to <0.25			47	4,125	1,178	76.18 %	5,022	0.20 %	207,928	74.94 %		1,562	-	7	
Low		0.25 to <0.50			48	5,094	2,494	28.24 %	5,798	0.28 %	726,703	42.16 %		1,324	22.83 %	7	
Low		0.50 to <0.75			49	8,291	-	89.97 %	8,112	0.64 %	162,498	35.07 %		2,480	30.58 %	18	
Medium		0.75 to <2.50			50	6,544	650	44.65 %	6,787	1.27 %	246,188	42.64 %		3,515	51.79 %	39	
Medium to High		2.50 to <10.00			51	3,440	211	31.75 %	3,480	4.76 %	326,076	43.12 %		2,328	66.90 %	68	
High		10.00 to <100.00			52	759	307	31.44 %	854	25.04 %	249,838	51.12 %		936	109.65 %	105	
Default		100.00 (Default)			53	143	2	28.00 %	142	100.00 %	51,381	48.19 %		462	325.33 %	53	
Sub-total					54	48,251	9,152	45.21 %	52,386	1.35 %	2,317,996	37.72 %		14,061	26.84 %	303	276
Total (all retail portfolios)						55	239,244	124,584	50.12 %	301,686	1.02 %	8,799,407	33.86 %	50,498	16.74 %	1,177	1,096

(1) Credit Risk excludes Counterparty Credit Risk, Securitization, Equity Investment in Funds, Settlement Risk and amounts below the thresholds for deduction subject to 250% risk weight.

(2) Columns "a" and "b" are grouped by the obligor's PD and columns "d" onwards are grouped by the guarantor, where applicable.

(3) PD bands in the table are as prescribed in revised Pillar 3 guidance and used for comparative purposes across banks.

(4) Calculated as EAD post-conversion factor for off-balance sheet exposure divided by total off-balance sheet exposure pre-conversion factor.

(5) Calculated as the obligor PD or guarantor PD, where applicable, weighted by EAD.

(6) Obligor count for Retail portfolios is at the account level.

(7) Calculated as the obligor LGD or guarantor LGD, where applicable, weighted by EAD.

CR6 - IRB - CREDIT RISK EXPOSURE BY PORTFOLIO AND PD RANGE - WHOLESALE (1) (2) (3)

(\$ millions except as noted)

CR6 - IRB - CREDIT RISK EXPOSURE BY PORTFOLIO AND PD RANGE - WHOLESALE (1) (2) (3) (\$ millions except as noted)						Q4 2022											
						Original on-balance sheet gross exposure	Off-balance sheet exposures pre-CCF	Average CCF (4)	EAD post-CRM and post-CCF	Average PD (5)	Number of obligors (6)	Average LGD (7)	Average maturity (years) (8)	RWA	RWA density	EL	Provisions
Risk Profile	BMO Rating	PD Scale (%)	Moody's Investors Service implied equivalent	Standard & Poor's implied equivalent	LINE #	a	b	c	d	e	f	g	h	i	j	k	l
Corporate																	
Investment grade	I-1, I-2, I-3, I-4, I-5	0.00 to <0.15	Aaa to Baa1	AAA to BBB+	56	73,099	115,806	48.61 %	140,071	0.08 %	6,769	32.61 %	2.06	25,631	18.30 %	39	
Investment grade	I-5, I-6	0.15 to <0.25	Baa1 to Baa2	BBB+ to BBB	57	48,172	55,732	44.32 %	70,749	0.19 %	6,805	34.64 %	2.20	22,862	32.31 %	47	
Investment grade	I-6, I-7	0.25 to <0.50	Baa2 to Baa3	BBB to BBB-	58	54,157	47,828	45.59 %	73,092	0.32 %	10,095	34.43 %	2.23	30,620	41.89 %	81	
Investment grade to Non-investment grade	I-7, S-1	0.50 to <0.75	Baa3 to Ba1	BBB- to BB+	59	44,311	35,378	49.61 %	59,454	0.55 %	8,013	32.81 %	2.28	30,649	51.55 %	108	
Non-investment grade	S-1, S-2, S-3	0.75 to <2.50	Ba1 to Ba3	BB+ to BB-	60	48,784	29,404	49.72 %	60,926	1.20 %	9,790	33.69 %	2.50	44,407	72.89 %	237	
Non-investment grade to Watchlist	S-3, S-4, P-1, P-2	2.50 to <10.00	Ba3 to Caa1	BB- to B-	61	10,994	7,315	51.99 %	14,117	3.86 %	3,445	33.67 %	2.30	14,476	102.54 %	184	
Watchlist	P-2, P-3	10.00 to <100.00	Caa1 to Ca	B- to CC	62	2,307	866	49.68 %	2,668	16.27 %	921	34.56 %	1.88	4,302	161.24 %	154	
Default	Default	100.00 (Default)	C	C to D	63	1,245	329	56.11 %	1,382	100.00 %	443	39.87 %	3.13	2,680	193.92 %	567	
Sub-total					64	283,069	292,658	47.63 %	422,459	0.92 %	46,281	33.52 %		175,627	41.57 %	1,417	1,860
Sovereign																	
Investment grade	I-1, I-2, I-3, I-4, I-5	0.00 to <0.15	Aaa to Baa1	AAA to BBB+	65	225,339	7,644	61.36 %	230,075	0.01 %	1,761	3.70 %	2.87	4,396	1.91 %	3	
Investment grade	I-5, I-6	0.15 to <0.25	Baa1 to Baa2	BBB+ to BBB	66	2,716	459	76.88 %	3,050	0.19 %	113	23.09 %	2.64	198	6.50 %	-	
Investment grade	I-6, I-7	0.25 to <0.50	Baa2 to Baa3	BBB to BBB-	67	216	175	38.73 %	270	0.32 %	91	24.11 %	1.95	76	28.00 %	-	
Investment grade to Non-investment grade	I-7, S-1	0.50 to <0.75	Baa3 to Ba1	BBB- to BB+	68	177	102	35.89 %	210	0.57 %	62	30.47 %	1.77	97	46.11 %	-	
Non-investment grade	S-1, S-2, S-3	0.75 to <2.50	Ba1 to Ba3	BB+ to BB-	69	61	22	33.29 %	60	1.28 %	54	29.53 %	1.25	33	56.21 %	-	
Non-investment grade to Watchlist	S-3, S-4, P-1, P-2	2.50 to <10.00	Ba3 to Caa1	BB- to B-	70	244	57	34.16 %	262	2.84 %	80	34.89 %	1.36	163	62.07 %	2	
Watchlist	P-2, P-3	10.00 to <100.00	Caa1 to Ca	B- to CC	71	-	-	-	-	-	-	-	-	-	-	-	
Default	Default	100.00 (Default)	C	C to D	72	3	-	-	3	100.00 %	1	49.11 %	1.00	21	650.75 %	-	
Sub-total					73	228,756	8,459	61.17 %	233,930	0.02 %	2,162	4.04 %		4,984	2.13 %	5	10
Bank																	
Investment grade	I-1, I-2, I-3, I-4, I-5	0.00 to <0.15	Aaa to Baa1	AAA to BBB+	74	6,121	5,660	68.70 %	10,776	0.08 %	216	16.13 %	1.08	735	6.82 %	1	
Investment grade	I-5, I-6	0.15 to <0.25	Baa1 to Baa2	BBB+ to BBB	75	1,434	4,418	64.51 %	4,124	0.19 %	98	13.92 %	0.92	708	17.17 %	2	
Investment grade	I-6, I-7	0.25 to <0.50	Baa2 to Baa3	BBB to BBB-	76	3,463	1,851	64.34 %	4,464	0.32 %	76	10.26 %	0.78	764	17.12 %	2	
Investment grade to Non-investment grade	I-7, S-1	0.50 to <0.75	Baa3 to Ba1	BBB- to BB+	77	655	707	63.17 %	1,076	0.54 %	38	11.87 %	0.71	154	14.29 %	1	
Non-investment grade	S-1, S-2, S-3	0.75 to <2.50	Ba1 to Ba3	BB+ to BB-	78	1,402	54	49.83 %	1,050	1.50 %	39	14.99 %	0.50	92	8.80 %	1	
Non-investment grade to Watchlist	S-3, S-4, P-1, P-2	2.50 to <10.00	Ba3 to Caa1	BB- to B-	79	156	6	90.42 %	148	7.72 %	20	20.50 %	0.54	175	118.47 %	2	
Watchlist	P-2, P-3	10.00 to <100.00	Caa1 to Ca	B- to CC	80	-	-	-	-	-	-	-	-	-	-	-	
Default	Default	100.00 (Default)	C	C to D	81	-	-	-	-	-	-	-	-	-	-	-	
Sub-total					82	13,231	12,696	66.23 %	21,638	0.29 %	487	14.26 %		2,628	12.15 %	9	8
Total (all wholesale portfolios)					83	525,056	313,813	48.75 %	678,027	0.59 %	48,930	22.74 %		183,239	27.02 %	1,431	1,878

(1) Credit Risk excludes Counterparty Credit Risk, Securitization, Equity Investment in Funds, Settlement Risk and amounts below the thresholds for deduction subject to 250% risk weight.

(2) Columns "a" and "b" are grouped by the obligor's PD and columns "d" onwards are grouped by the guarantor, where applicable.

(3) PD bands in the table are as prescribed in revised Pillar 3 guidance and used for comparative purposes across banks.

(4) Calculated as EAD post-conversion factor for off-balance sheet exposure divided by total off-balance sheet exposure pre-conversion factor.

(5) Calculated as the obligor PD or guarantor PD, where applicable, weighted by EAD.

(6) Obligor count for Wholesale portfolios is at the borrower level.

(7) Calculated as the obligor LGD or guarantor LGD, where applicable, weighted by EAD.

(8) Calculated as the effective maturity in years weighted by EAD.

CR6 - IRB - CREDIT RISK EXPOSURE BY PORTFOLIO AND PD RANGE - RETAIL (1) (2) (3)

(\$ millions except as noted)

CR6 - IRB - CREDIT RISK EXPOSURE BY PORTFOLIO AND PD RANGE - RETAIL (1) (2) (3) (\$ millions except as noted)						Q3 2022											
						Original on- balance sheet gross exposure	Off-balance sheet exposures pre-CCF	Average CCF (4)	EAD post- CRM and post-CCF	Average PD (5)	Number of obligors (6)	Average LGD (7)	Average maturity (years)	RWA	RWA density	EL	Provisions
Risk Profile	BMO Rating	PD Scale (%)	Moody's Investors Service implied equivalent	Standard & Poor's implied equivalent	LINE #	a	b	c	d	e	f	g	h	i	j	k	l
Canadian insured residential																	
Exceptionally low to Very low		0.00 to <0.15			1	30,339	-	-	40,674	0.01 %	128,913	30.79 %		346	0.85 %	1	
Very low to Low		0.15 to <0.25			2	-	-	-	-	-	-	-		-	-	-	
Low		0.25 to <0.50			3	-	-	-	-	-	-	-		-	-	-	
Low		0.50 to <0.75			4	6,844	-	-	271	0.61 %	14,031	41.25 %		96	35.59 %	1	
Medium		0.75 to <2.50			5	2,058	-	-	2	1.32 %	5,382	41.63 %		1	66.21 %	-	
Medium to High		2.50 to <10.00			6	1,498	-	-	-	-	4,510	-		-	-	-	
High		10.00 to <100.00			7	123	-	-	-	-	547	-		-	-	-	
Default		100.00 (Default)			8	85	-	-	-	-	448	-		-	-	-	
Sub-total					9	40,947	-	-	40,947	0.01 %	153,831	30.86 %		443	1.08 %	2	5
Canadian uninsured residential																	
Exceptionally low to Very low		0.00 to <0.15			10	76,190	35,155	43.48 %	91,476	0.09 %	469,927	17.39 %		3,572	3.90 %	14	
Very low to Low		0.15 to <0.25			11	9,328	1,761	28.05 %	9,823	0.22 %	50,546	20.12 %		901	9.16 %	4	
Low		0.25 to <0.50			12	-	-	-	-	-	-	-		-	-	-	
Low		0.50 to <0.75			13	15,096	35	80.57 %	15,126	0.61 %	39,157	18.77 %		2,674	17.68 %	17	
Medium		0.75 to <2.50			14	8,075	642	23.89 %	8,228	1.17 %	31,100	19.00 %		2,277	27.67 %	18	
Medium to High		2.50 to <10.00			15	4,679	124	34.50 %	4,721	6.64 %	13,212	15.85 %		2,968	62.86 %	49	
High		10.00 to <100.00			16	289	20	21.76 %	293	41.98 %	1,709	14.35 %		231	78.66 %	17	
Default		100.00 (Default)			17	121	16	18.94 %	124	100.00 %	931	12.45 %		168	135.42 %	7	
Sub-total					18	113,778	37,753	42.41 %	129,791	0.66 %	606,582	17.79 %		12,791	9.85 %	126	65
Non-Canadian residential																	
Exceptionally low to Very low		0.00 to <0.15			19	1,402	5,841	58.92 %	4,843	0.04 %	42,603	43.28 %		273	5.64 %	1	
Very low to Low		0.15 to <0.25			20	6,261	108	100.00 %	6,370	0.17 %	12,245	21.44 %		504	7.92 %	2	
Low		0.25 to <0.50			21	529	199	49.91 %	628	0.37 %	5,879	45.00 %		190	30.26 %	1	
Low		0.50 to <0.75			22	1,164	23	100.00 %	1,187	0.72 %	5,826	30.00 %		371	31.25 %	2	
Medium		0.75 to <2.50			23	337	28	45.56 %	349	1.24 %	4,486	46.81 %		267	76.39 %	2	
Medium to High		2.50 to <10.00			24	388	1	88.62 %	389	3.69 %	2,516	30.96 %		356	91.45 %	5	
High		10.00 to <100.00			25	122	96	62.07 %	182	23.88 %	1,565	29.05 %		303	166.19 %	13	
Default		100.00 (Default)			26	214	-	-	214	100.00 %	4,729	38.23 %		569	264.97 %	60	
Sub-total					27	10,417	6,296	59.48 %	14,162	2.12 %	79,849	31.91 %		2,833	19.99 %	86	102
Qualifying revolving retail																	
Exceptionally low to Very low		0.00 to <0.15			28	1,232	40,714	57.57 %	24,670	0.04 %	3,240,763	77.87 %		613	2.48 %	8	
Very low to Low		0.15 to <0.25			29	563	2,438	71.59 %	2,309	0.23 %	312,610	83.23 %		241	10.45 %	4	
Low		0.25 to <0.50			30	2,419	12,618	37.15 %	7,107	0.29 %	643,747	61.82 %		672	9.46 %	13	
Low		0.50 to <0.75			31	464	1,036	83.52 %	1,329	0.69 %	203,085	87.66 %		354	26.66 %	8	
Medium		0.75 to <2.50			32	3,297	3,510	44.69 %	4,866	1.23 %	404,403	74.56 %		1,761	36.20 %	46	
Medium to High		2.50 to <10.00			33	2,075	1,314	79.35 %	3,118	4.47 %	426,359	83.99 %		3,009	96.51 %	116	
High		10.00 to <100.00			34	484	224	62.83 %	625	24.22 %	85,466	73.61 %		1,180	188.80 %	114	
Default		100.00 (Default)			35	56	25	40.70 %	66	100.00 %	4,448	58.45 %		203	305.50 %	32	
Sub-total					36	10,590	61,879	54.14 %	44,090	1.05 %	5,320,881	75.84 %		8,033	18.22 %	341	430
Retail small-and-medium-sized entities																	
Exceptionally low to Very low		0.00 to <0.15			37	445	2,356	73.36 %	2,511	0.06 %	55,738	59.92 %		291	11.60 %	1	
Very low to Low		0.15 to <0.25			38	158	776	68.00 %	686	0.19 %	42,066	87.75 %		246	35.82 %	1	
Low		0.25 to <0.50			39	1,500	2,480	75.86 %	3,324	0.43 %	38,001	63.75 %		1,356	40.80 %	8	
Low		0.50 to <0.75			40	1,918	235	71.02 %	2,016	0.68 %	14,364	53.94 %		979	48.54 %	7	
Medium		0.75 to <2.50			41	3,063	743	53.28 %	3,366	1.81 %	47,080	58.09 %		2,563	76.15 %	35	
Medium to High		2.50 to <10.00			42	3,286	291	46.35 %	3,338	4.37 %	24,761	58.78 %		3,027	90.69 %	90	
High		10.00 to <100.00			43	714	46	77.74 %	726	18.97 %	5,438	54.91 %		835	115.08 %	78	
Default		100.00 (Default)			44	188	26	85.81 %	200	100.00 %	5,116	58.93 %		1,009	504.32 %	58	
Sub-total					45	11,272	6,953	70.37 %	16,167	3.56 %	232,564	60.29 %		10,306	63.75 %	278	208
Other retail																	
Exceptionally low to Very low		0.00 to <0.15			46	19,153	4,150	50.00 %	21,477	0.09 %	354,866	26.18 %		1,369	6.38 %	5	
Very low to Low		0.15 to <0.25			47	4,310	1,085	72.99 %	5,102	0.20 %	177,026	74.01 %		1,571	30.80 %	7	
Low		0.25 to <0.50			48	4,807	2,374	27.89 %	5,469	0.30 %	762,659	42.29 %		1,289	23.56 %	7	
Low		0.50 to <0.75			49	6,687	16	55.94 %	6,522	0.63 %	125,774	34.51 %		1,944	29.81 %	14	
Medium		0.75 to <2.50			50	7,444	704	41.34 %	7,691	1.25 %	386,713	44.68 %		4,123	53.61 %	46	
Medium to High		2.50 to <10.00			51	3,017	40	36.60 %	3,003	4.69 %	177,543	44.27 %		2,070	68.93 %	60	
High		10.00 to <100.00			52	971	293	34.78 %	1,072	22.85 %	221,278	50.96 %		1,177	109.76 %	122	
Default		100.00 (Default)			53	129	2	25.36 %	128	100.00 %	50,022	46.20 %		391	305.81 %	45	
Sub-total					54	46,518	8,664	45.55 %	50,464	1.38 %	2,255,881	38.31 %		13,934	27.61 %	306	244
Total (all retail portfolios)																	
					55	233,522	121,545	51.09 %	295,621	0.98 %	8,649,588	34.76 %		48,340	16.35 %	1,139	1,054

(1) Credit Risk excludes Counterparty Credit Risk, Securitization, Equity Investment in Funds, Settlement Risk and amounts below the thresholds for deduction subject to 250% risk weight.

(2) Columns "a" and "b" are grouped by the obligor's PD and columns "d" onwards are grouped by the guarantor, where applicable.

(3) PD bands in the table are as prescribed in revised Pillar 3 guidance and used for comparative purposes across banks.

(4) Calculated as EAD post-conversion factor for off-balance sheet exposure divided by total off-balance sheet exposure pre-conversion factor.

(5) Calculated as the obligor PD or guarantor PD, where applicable, weighted by EAD.

(6) Obligor count for Retail portfolios is at the account level.

(7) Calculated as the obligor LGD or guarantor LGD, where applicable, weighted by EAD.

CR6 - IRB - CREDIT RISK EXPOSURE BY PORTFOLIO AND PD RANGE - WHOLESALE (1) (2) (3)

(\$ millions except as noted)

CR6 - IRB - CREDIT RISK EXPOSURE BY PORTFOLIO AND PD RANGE - WHOLESALE (1) (2) (3)						Q3 2022												
						Original on-balance sheet gross exposure	Off-balance sheet exposures pre-CCF	Average CCF (4)	EAD post-CRM and post-CCF	Average PD (5)	Number of obligors (6)	Average LGD (7)	Average maturity (years) (8)	RWA	RWA density	EL	Provisions	
Risk Profile	BMO Rating	PD Scale (%)	Moody's Investors Service implied equivalent	Standard & Poor's implied equivalent	LINE #	a	b	c	d	e	f	g	h	i	j	k	l	
Corporate																		
Investment grade	I-1, I-2, I-3, I-4, I-5	0.00 to <0.15	Aaa to Baa1	AAA to BBB+	56	64,522	112,730	49.45 %	129,998	0.08 %	6,558	33.90 %	2.12	25,335	19.49 %	37		
Investment grade	I-5, I-6	0.15 to <0.25	Baa1 to Baa2	BBB+ to BBB	57	44,874	58,817	46.59 %	69,952	0.19 %	6,731	35.30 %	2.14	23,007	32.89 %	47		
Investment grade	I-6, I-7	0.25 to <0.50	Baa2 to Baa3	BBB to BBB-	58	52,940	43,062	46.73 %	70,639	0.32 %	10,056	34.52 %	2.26	29,622	41.93 %	78		
Investment grade to Non-investment grade	I-7, S-1	0.50 to <0.75	Baa3 to Ba1	BBB- to BB+	59	41,359	35,361	50.30 %	56,920	0.55 %	7,918	33.63 %	2.25	30,008	52.72 %	106		
Non-investment grade	S-1, S-2, S-3	0.75 to <2.50	Ba1 to Ba3	BB+ to BB-	60	44,902	28,791	51.10 %	57,412	1.20 %	10,732	34.33 %	2.46	42,609	74.22 %	230		
Non-investment grade to Watchlist	S-3, S-4, P-1, P-2	2.50 to <10.00	Ba3 to Caa1	BB- to B-	61	9,293	7,542	51.69 %	12,717	3.83 %	3,329	34.41 %	2.05	12,848	101.03 %	167		
Watchlist	P-2, P-3	10.00 to <100.00	Caa1 to Ca	B- to CC	62	2,088	630	49.45 %	2,345	16.26 %	900	35.81 %	1.70	3,849	164.15 %	137		
Default	Default	100.00 (Default)	C	C to D	63	1,376	451	100.00 %	1,792	100.00 %	492	37.89 %	2.69	4,128	230.33 %	614		
Sub-total					64	261,354	287,384	48.87 %	401,775	1.03 %	46,716	34.32 %		171,406	42.66 %	1,416	1,795	
Sovereign																		
Investment grade	I-1, I-2, I-3, I-4, I-5	0.00 to <0.15	Aaa to Baa1	AAA to BBB+	65	199,516	7,177	60.73 %	203,931	0.01 %	1,766	4.41 %	3.05	4,320	2.12 %	4		
Investment grade	I-5, I-6	0.15 to <0.25	Baa1 to Baa2	BBB+ to BBB	66	296	144	67.55 %	373	0.19 %	122	23.81 %	2.37	90	24.14 %	-		
Investment grade	I-6, I-7	0.25 to <0.50	Baa2 to Baa3	BBB to BBB-	67	344	285	41.01 %	445	0.32 %	97	23.88 %	1.76	120	26.88 %	-		
Investment grade to Non-investment grade	I-7, S-1	0.50 to <0.75	Baa3 to Ba1	BBB- to BB+	68	224	103	34.05 %	255	0.57 %	62	33.79 %	1.88	92	36.18 %	-		
Non-investment grade	S-1, S-2, S-3	0.75 to <2.50	Ba1 to Ba3	BB+ to BB-	69	70	22	35.22 %	63	1.30 %	85	29.47 %	1.27	36	56.61 %	-		
Non-investment grade to Watchlist	S-3, S-4, P-1, P-2	2.50 to <10.00	Ba3 to Caa1	BB- to B-	70	220	61	34.98 %	240	2.83 %	116	35.38 %	1.32	171	70.96 %	2		
Watchlist	P-2, P-3	10.00 to <100.00	Caa1 to Ca	B- to CC	71	4	-	-	4	15.30 %	2	49.13 %	1.00	8	238.88 %	-		
Default	Default	100.00 (Default)	C	C to D	72	1	-	-	1	100.00 %	1	20.00 %	5.00	4	265.00 %	-		
Sub-total					73	200,675	7,792	59.51 %	205,312	0.02 %	2,251	4.57 %		4,841	2.36 %	6	17	
Bank																		
Investment grade	I-1, I-2, I-3, I-4, I-5	0.00 to <0.15	Aaa to Baa1	AAA to BBB+	74	11,657	5,588	69.97 %	16,317	0.07 %	220	16.30 %	1.39	1,242	7.62 %	2		
Investment grade	I-5, I-6	0.15 to <0.25	Baa1 to Baa2	BBB+ to BBB	75	4,168	4,303	60.77 %	6,602	0.19 %	107	14.08 %	1.23	198	3.00 %	1		
Investment grade	I-6, I-7	0.25 to <0.50	Baa2 to Baa3	BBB to BBB-	76	1,235	1,583	61.30 %	2,007	0.32 %	73	13.16 %	0.97	320	15.95 %	1		
Investment grade to Non-investment grade	I-7, S-1	0.50 to <0.75	Baa3 to Ba1	BBB- to BB+	77	511	637	60.79 %	868	0.54 %	39	12.22 %	1.79	153	17.60 %	1		
Non-investment grade	S-1, S-2, S-3	0.75 to <2.50	Ba1 to Ba3	BB+ to BB-	78	1,894	38	80.04 %	1,597	1.45 %	41	17.30 %	0.48	578	36.20 %	4		
Non-investment grade to Watchlist	S-3, S-4, P-1, P-2	2.50 to <10.00	Ba3 to Caa1	BB- to B-	79	108	8	90.81 %	104	5.10 %	20	14.48 %	0.41	97	93.40 %	1		
Watchlist	P-2, P-3	10.00 to <100.00	Caa1 to Ca	B- to CC	80	11	-	-	11	15.28 %	1	45.00 %	1.00	24	218.72 %	1		
Default	Default	100.00 (Default)	C	C to D	81	-	-	-	-	-	-	-	-	-	-	-		
Sub-total					82	19,584	12,157	65.15 %	27,506	0.24 %	501	15.47 %		2,612	9.50 %	11	4	
Total (all wholesale portfolios)						83	481,613	307,333	49.78 %	634,593	0.67 %	49,468	23.88 %		178,859	28.19 %	1,433	1,816

(1) Credit Risk excludes Counterparty Credit Risk, Securitization, Equity Investment in Funds, Settlement Risk and amounts below the thresholds for deduction subject to 250% risk weight.

(2) Columns "a" and "b" are grouped by the obligor's PD and columns "d" onwards are grouped by the guarantor, where applicable.

(3) PD bands in the table are as prescribed in revised Pillar 3 guidance and used for comparative purposes across banks.

(4) Calculated as EAD post-conversion factor for off-balance sheet exposure divided by total off-balance sheet exposure pre-conversion factor.

(5) Calculated as the obligor PD or guarantor PD, where applicable, weighted by EAD.

(6) Obligor count for Wholesale portfolios is at the borrower level.

(7) Calculated as the obligor LGD or guarantor LGD, where applicable, weighted by EAD.

(8) Calculated as the effective maturity in years weighted by EAD.

CR6 - IRB - CREDIT RISK EXPOSURE BY PORTFOLIO AND PD RANGE - RETAIL (1) (2) (3)

(\$ millions except as noted)

CR6 - IRB - CREDIT RISK EXPOSURE BY PORTFOLIO AND PD RANGE - RETAIL (1) (2) (3) (\$ millions except as noted)						Q2 2022												
						Original on- balance sheet gross exposure	Off-balance sheet exposures pre-CCF	Average CCF (4)	EAD post- CRM and post-CCF	Average PD (5)	Number of obligors (6)	Average LGD (7)	Average maturity (years)	RWA	RWA density	EL	Provisions	
						a	b	c	d	e	f	g	h	i	j	k	l	
Risk Profile	BMO Rating	PD Scale (%)	Moody's Investors Service implied equivalent	Standard & Poor's implied equivalent	LINE #													
Canadian insured residential																		
Exceptionally low to Very low		0.00 to <0.15			1	29,456	-	-	39,678	0.01 %	126,751	30.14 %		364	0.92 %	1		
Very low to Low		0.15 to <0.25			2	-	-	-	-	-	-	-		-	-	-		
Low		0.25 to <0.50			3	-	-	-	-	-	-	-		-	-	-		
Low		0.50 to <0.75			4	6,680	-	-	261	0.61 %	13,906	39.93 %		99	38.04 %	1		
Medium		0.75 to <2.50			5	2,032	-	-	2	1.32 %	5,443	39.70 %		1	63.14 %	-		
Medium to High		2.50 to <10.00			6	1,555	-	-	-	-	4,745	-		-	-	-		
High		10.00 to <100.00			7	116	-	-	-	-	521	-		-	-	-		
Default		100.00 (Default)			8	101	-	-	-	-	475	-		-	-	-		
Sub-total					9	39,940	-	-	39,941	0.01 %	151,841	30.20 %		464	1.17 %	2	5	
Canadian uninsured residential																		
Exceptionally low to Very low		0.00 to <0.15			10	74,512	34,248	43.51 %	89,414	0.09 %	469,546	16.95 %		3,396	3.80 %	13		
Very low to Low		0.15 to <0.25			11	8,964	1,651	27.18 %	9,413	0.22 %	49,310	19.48 %		835	8.86 %	4		
Low		0.25 to <0.50			12	-	-	-	-	-	-	-		-	-	-		
Low		0.50 to <0.75			13	14,581	28	76.60 %	14,603	0.61 %	39,061	17.61 %		2,460	16.84 %	16		
Medium		0.75 to <2.50			14	7,872	544	22.52 %	7,994	1.18 %	30,610	18.00 %		2,106	26.34 %	17		
Medium to High		2.50 to <10.00			15	4,606	95	36.34 %	4,641	6.65 %	13,142	14.83 %		2,733	58.90 %	45		
High		10.00 to <100.00			16	263	24	20.08 %	267	42.58 %	1,534	13.44 %		197	73.53 %	15		
Default		100.00 (Default)			17	126	14	19.55 %	128	100.00 %	976	12.08 %		163	126.84 %	7		
Sub-total					18	110,924	36,604	42.44 %	126,460	0.66 %	604,179	17.19 %		11,890	9.40 %	117	61	
Non-Canadian residential																		
Exceptionally low to Very low		0.00 to <0.15			19	1,332	5,732	59.01 %	4,715	0.04 %	42,018	67.39 %		414	8.78 %	1		
Very low to Low		0.15 to <0.25			20	5,853	90	100.00 %	5,943	0.17 %	12,199	21.15 %		464	7.81 %	2		
Low		0.25 to <0.50			21	525	192	50.29 %	621	0.37 %	5,797	69.43 %		290	46.69 %	2		
Low		0.50 to <0.75			22	1,083	18	100.00 %	1,100	0.72 %	5,891	28.98 %		331	30.10 %	2		
Medium		0.75 to <2.50			23	414	30	44.53 %	427	1.24 %	4,442	70.33 %		453	105.98 %	4		
Medium to High		2.50 to <10.00			24	381	2	88.70 %	383	3.70 %	2,573	36.70 %		435	113.64 %	6		
High		10.00 to <100.00			25	123	88	62.74 %	178	23.70 %	1,575	33.62 %		342	192.34 %	14		
Default		100.00 (Default)			26	225	-	-	225	100.00 %	5,377	42.83 %		695	308.98 %	64		
Sub-total					27	9,936	6,152	59.45 %	13,592	2.27 %	79,872	42.54 %		3,424	25.20 %	95	110	
Qualifying revolving retail																		
Exceptionally low to Very low		0.00 to <0.15			28	1,062	40,317	57.02 %	24,050	0.04 %	3,214,382	77.65 %		591	2.46 %	8		
Very low to Low		0.15 to <0.25			29	506	2,320	70.91 %	2,151	0.23 %	300,110	82.35 %		222	10.34 %	4		
Low		0.25 to <0.50			30	2,194	12,268	37.58 %	6,804	0.29 %	617,846	61.32 %		638	9.38 %	12		
Low		0.50 to <0.75			31	417	982	82.37 %	1,226	0.69 %	196,069	86.10 %		321	26.21 %	7		
Medium		0.75 to <2.50			32	3,073	3,496	46.10 %	4,684	1.23 %	391,648	74.30 %		1,688	36.03 %	44		
Medium to High		2.50 to <10.00			33	1,939	1,345	79.39 %	3,007	4.44 %	419,245	83.47 %		2,872	95.50 %	112		
High		10.00 to <100.00			34	434	213	63.23 %	569	23.67 %	80,896	73.78 %		1,069	187.90 %	102		
Default		100.00 (Default)			35	54	24	41.61 %	64	100.00 %	4,109	57.52 %		212	331.13 %	29		
Sub-total					36	9,679	60,965	53.93 %	42,555	1.02 %	5,224,305	75.48 %		7,613	17.89 %	318	402	
Retail small-and-medium-sized entities																		
Exceptionally low to Very low		0.00 to <0.15			37	1,454	2,990	76.09 %	4,060	0.08 %	60,978	58.96 %		575	14.16 %	2		
Very low to Low		0.15 to <0.25			38	134	571	65.99 %	511	0.19 %	37,792	88.14 %		184	36.03 %	1		
Low		0.25 to <0.50			39	114	377	68.30 %	372	0.44 %	22,863	87.02 %		229	61.56 %	1		
Low		0.50 to <0.75			40	2,057	437	86.62 %	2,334	0.58 %	13,585	55.13 %		1,062	45.52 %	7		
Medium		0.75 to <2.50			41	2,227	631	55.61 %	2,470	1.54 %	43,120	58.42 %		1,801	72.90 %	22		
Medium to High		2.50 to <10.00			42	3,300	267	49.44 %	3,321	4.15 %	25,103	58.53 %		2,980	89.74 %	85		
High		10.00 to <100.00			43	642	19	81.08 %	651	15.94 %	4,988	54.39 %		720	110.64 %	58		
Default		100.00 (Default)			44	154	3	97.66 %	152	100.00 %	4,526	58.09 %		627	411.57 %	57		
Sub-total					45	10,082	5,295	71.56 %	13,871	3.25 %	212,955	59.72 %		8,178	58.95 %	233	175	
Other retail																		
Exceptionally low to Very low		0.00 to <0.15			46	17,973	4,014	49.79 %	20,218	0.09 %	355,720	25.65 %		1,252	6.19 %	5		
Very low to Low		0.15 to <0.25			47	4,352	1,089	73.26 %	5,150	0.20 %	179,073	75.35 %		1,613	31.32 %	7		
Low		0.25 to <0.50			48	4,919	2,348	27.87 %	5,573	0.30 %	758,633	42.36 %		1,314	23.57 %	7		
Low		0.50 to <0.75			49	6,248	18	56.08 %	6,089	0.63 %	125,883	33.97 %		1,788	29.36 %	13		
Medium		0.75 to <2.50			50	6,963	696	42.79 %	7,216	1.24 %	383,512	44.27 %		3,747	51.93 %	41		
Medium to High		2.50 to <10.00			51	2,859	32	40.77 %	2,843	4.70 %	168,556	43.76 %		1,939	68.21 %	56		
High		10.00 to <100.00			52	924	277	34.52 %	1,019	22.14 %	220,890	51.38 %		1,481	145.44 %	145		
Default		100.00 (Default)			53	128	2	31.59 %	126	100.00 %	51,339	46.09 %		428	339.74 %	40		
Sub-total					54	44,366	8,476	45.63 %	48,234	1.36 %	2,243,606	38.39 %		13,562	28.12 %	314	222	
Total (all retail portfolios)						55	224,927	117,492	50.84 %	284,653	0.95 %	8,516,758	34.61 %		45,131	15.86 %	1,079	975

(1) Credit Risk excludes Counterparty Credit Risk, Securitization, Equity Investment in Funds, Settlement Risk and amounts below the thresholds for deduction subject to 250% risk weight.

(2) Columns "a" and "b" are grouped by the obligor's PD and columns "d" onwards are grouped by the guarantor, where applicable.

(3) PD bands in the table are as prescribed in revised Pillar 3 guidance and used for comparative purposes across banks.

(4) Calculated as EAD post-conversion factor for off-balance sheet exposure divided by total off-balance sheet exposure pre-conversion factor.

(5) Calculated as the obligor PD or guarantor PD, where applicable, weighted by EAD.

(6) Obligor count for Retail portfolios is at the account level.

(7) Calculated as the obligor LGD or guarantor LGD, where applicable, weighted by EAD.

CR6 - IRB - CREDIT RISK EXPOSURE BY PORTFOLIO AND PD RANGE - WHOLESALE (1) (2) (3)

(\$ millions except as noted)

CR6 - IRB - CREDIT RISK EXPOSURE BY PORTFOLIO AND PD RANGE - WHOLESALE (1) (2) (3)						Q2 2022												
						Original on-balance sheet gross exposure	Off-balance sheet exposures pre-CCF	Average CCF (4)	EAD post-CRM and post-CCF	Average PD (5)	Number of obligors (6)	Average LGD (7)	Average maturity (years) (8)	RWA	RWA density	EL	Provisions	
Risk Profile	BMO Rating	PD Scale (%)	Moody's Investors Service implied equivalent	Standard & Poor's implied equivalent	LINE #	a	b	c	d	e	f	g	h	i	j	k	l	
Corporate																		
Investment grade	I-1, I-2, I-3, I-4, I-5	0.00 to <0.15	Aaa to Baa1	AAA to BBB+	56	68,002	105,710	49.55 %	129,699	0.08 %	6,686	34.12 %	2.08	24,085	18.57 %	37		
Investment grade	I-5, I-6	0.15 to <0.25	Baa1 to Baa2	BBB+ to BBB	57	41,482	54,895	46.99 %	65,869	0.19 %	7,267	35.42 %	2.13	21,687	32.93 %	44		
Investment grade	I-6, I-7	0.25 to <0.50	Baa2 to Baa3	BBB to BBB-	58	49,405	45,115	47.00 %	68,069	0.32 %	10,827	34.79 %	2.18	28,325	41.61 %	76		
Investment grade to Non-investment grade	I-7, S-1	0.50 to <0.75	Baa3 to Ba1	BBB- to BB+	59	40,888	33,640	50.24 %	55,151	0.55 %	8,314	33.22 %	2.22	28,505	51.69 %	101		
Non-investment grade	S-1, S-2, S-3	0.75 to <2.50	Ba1 to Ba3	BB+ to BB-	60	40,968	26,970	51.06 %	52,717	1.21 %	11,133	33.84 %	2.44	37,916	71.92 %	209		
Non-investment grade to Watchlist	S-3, S-4, P-1, P-2	2.50 to <10.00	Ba3 to Caa1	BB- to B-	61	9,246	6,435	53.09 %	12,101	3.94 %	3,663	34.48 %	2.02	11,943	98.69 %	162		
Watchlist	P-2, P-3	10.00 to <100.00	Caa1 to Ca	B- to CC	62	2,196	839	59.68 %	2,597	16.04 %	951	35.82 %	1.73	4,293	165.32 %	149		
Default	Default	100.00 (Default)	C	C to D	63	1,563	512	100.00 %	2,024	100.00 %	516	37.32 %	2.51	4,763	235.38 %	640		
Sub-total					64	253,750	274,116	49.06 %	388,227	1.11 %	49,357	34.33 %		161,517	41.60 %	1,418	1,856	
Sovereign																		
Investment grade	I-1, I-2, I-3, I-4, I-5	0.00 to <0.15	Aaa to Baa1	AAA to BBB+	65	197,117	7,436	60.37 %	201,670	0.01 %	1,799	4.65 %	3.08	4,174	2.07 %	4		
Investment grade	I-5, I-6	0.15 to <0.25	Baa1 to Baa2	BBB+ to BBB	66	302	131	71.45 %	374	0.19 %	130	22.97 %	2.06	82	21.89 %	-		
Investment grade	I-6, I-7	0.25 to <0.50	Baa2 to Baa3	BBB to BBB-	67	260	367	40.75 %	390	0.32 %	105	24.02 %	1.84	143	36.74 %	-		
Investment grade to Non-investment grade	I-7, S-1	0.50 to <0.75	Baa3 to Ba1	BBB- to BB+	68	100	40	34.75 %	109	0.57 %	63	34.75 %	2.58	54	49.77 %	-		
Non-investment grade	S-1, S-2, S-3	0.75 to <2.50	Ba1 to Ba3	BB+ to BB-	69	61	32	34.22 %	56	1.19 %	90	38.44 %	1.41	42	75.46 %	-		
Non-investment grade to Watchlist	S-3, S-4, P-1, P-2	2.50 to <10.00	Ba3 to Caa1	BB- to B-	70	285	58	38.81 %	307	2.74 %	109	34.09 %	1.28	212	68.95 %	3		
Watchlist	P-2, P-3	10.00 to <100.00	Caa1 to Ca	B- to CC	71	1	-	-	-	15.30 %	3	32.84 %	1.00	-	159.67 %	-		
Default	Default	100.00 (Default)	C	C to D	72	4	-	-	4	100.00 %	4	39.37 %	2.55	19	519.85 %	-		
Sub-total					73	198,130	8,064	59.27 %	202,910	0.02 %	2,303	4.79 %		4,726	2.33 %	7	8	
Bank																		
Investment grade	I-1, I-2, I-3, I-4, I-5	0.00 to <0.15	Aaa to Baa1	AAA to BBB+	74	10,201	5,631	70.32 %	14,974	0.07 %	216	16.99 %	1.26	1,222	8.16 %	2		
Investment grade	I-5, I-6	0.15 to <0.25	Baa1 to Baa2	BBB+ to BBB	75	3,146	4,131	63.32 %	5,510	0.19 %	101	13.98 %	1.20	523	9.50 %	1		
Investment grade	I-6, I-7	0.25 to <0.50	Baa2 to Baa3	BBB to BBB-	76	4,429	1,555	60.87 %	5,157	0.32 %	75	13.74 %	1.20	581	11.26 %	2		
Investment grade to Non-investment grade	I-7, S-1	0.50 to <0.75	Baa3 to Ba1	BBB- to BB+	77	911	629	61.08 %	1,257	0.54 %	40	12.19 %	2.11	357	28.42 %	1		
Non-investment grade	S-1, S-2, S-3	0.75 to <2.50	Ba1 to Ba3	BB+ to BB-	78	1,770	12	86.62 %	1,481	1.45 %	40	15.00 %	0.45	457	30.90 %	2		
Non-investment grade to Watchlist	S-3, S-4, P-1, P-2	2.50 to <10.00	Ba3 to Caa1	BB- to B-	79	158	16	52.93 %	161	4.43 %	24	20.43 %	0.46	119	73.78 %	2		
Watchlist	P-2, P-3	10.00 to <100.00	Caa1 to Ca	B- to CC	80	11	-	-	11	15.28 %	1	45.00 %	1.00	24	218.72 %	1		
Default	Default	100.00 (Default)	C	C to D	81	-	-	-	-	-	-	-	-	-	-	-		
Sub-total					82	20,626	11,974	66.19 %	28,551	0.26 %	497	15.54 %		3,283	11.50 %	11	9	
Total (all wholesale portfolios)						83	472,506	294,154	50.04 %	619,688	0.71 %	52,157	23.79 %		169,526	27.36 %	1,436	1,873

(1) Credit Risk excludes Counterparty Credit Risk, Securitization, Equity Investment in Funds, Settlement Risk and amounts below the thresholds for deduction subject to 250% risk weight.

(2) Columns "a" and "b" are grouped by the obligor's PD and columns "d" onwards are grouped by the guarantor, where applicable.

(3) PD bands in the table are as prescribed in revised Pillar 3 guidance and used for comparative purposes across banks.

(4) Calculated as EAD post-conversion factor for off-balance sheet exposure divided by total off-balance sheet exposure pre-conversion factor.

(5) Calculated as the obligor PD or guarantor PD, where applicable, weighted by EAD.

(6) Obligor count for Wholesale portfolios is at the borrower level.

(7) Calculated as the obligor LGD or guarantor LGD, where applicable, weighted by EAD.

(8) Calculated as the effective maturity in years weighted by EAD.

CR6 - IRB - CREDIT RISK EXPOSURE BY PORTFOLIO AND PD RANGE - RETAIL (1) (2) (3)

(\$ millions except as noted)

CR6 - IRB - CREDIT RISK EXPOSURE BY PORTFOLIO AND PD RANGE - RETAIL (1) (2) (3) (\$ millions except as noted)						Q1 2022												
						Original on- balance sheet gross exposure	Off-balance sheet exposures pre-CCF	Average CCF (4)	EAD post- CRM and post-CCF	Average PD (5)	Number of obligors (6)	Average LGD (7)	Average maturity (years)	RWA	RWA density	EL	Provisions	
						a	b	c	d	e	f	g	h	i	j	k	l	
Risk Profile	BMO Rating	PD Scale (%)	Moody's Investors Service implied equivalent	Standard & Poor's implied equivalent	LINE #													
Canadian insured residential																		
Exceptionally low to Very low		0.00 to <0.15			1	30,506	-	-	40,889	0.01 %	129,635	26.20 %		451	1.08 %	-		
Very low to Low		0.15 to <0.25			2	-	-	-	-	-	-	-		-	-	-		
Low		0.25 to <0.50			3	-	-	-	-	-	-	-		-	-	-		
Low		0.50 to <0.75			4	6,443	-	-	-	-	14,299	-		-	-	-		
Medium		0.75 to <2.50			5	2,117	-	-	-	-	5,602	-		-	-	-		
Medium to High		2.50 to <10.00			6	1,594	-	-	-	-	4,798	-		-	-	-		
High		10.00 to <100.00			7	118	-	-	-	-	563	-		-	-	-		
Default		100.00 (Default)			8	109	-	-	-	-	509	-		-	-	-		
Sub-total					9	40,887	-	-	40,889	0.01 %	155,406	26.20 %		451	1.08 %	-	7	
Canadian uninsured residential																		
Exceptionally low to Very low		0.00 to <0.15			10	72,346	33,456	43.36 %	86,853	0.09 %	462,395	16.54 %		3,214	3.70 %	12		
Very low to Low		0.15 to <0.25			11	9,343	1,467	26.31 %	9,729	0.22 %	49,633	18.85 %		835	8.58 %	4		
Low		0.25 to <0.50			12	-	-	-	-	-	-	-		-	-	-		
Low		0.50 to <0.75			13	14,166	27	76.39 %	14,187	0.61 %	39,312	16.78 %		2,270	16.00 %	15		
Medium		0.75 to <2.50			14	7,473	553	22.70 %	7,599	1.19 %	29,589	17.25 %		1,928	25.37 %	15		
Medium to High		2.50 to <10.00			15	4,428	92	35.65 %	4,461	6.73 %	12,750	14.17 %		2,527	56.64 %	42		
High		10.00 to <100.00			16	271	17	23.00 %	275	43.68 %	1,526	13.34 %		197	71.65 %	15		
Default		100.00 (Default)			17	138	15	19.54 %	141	100.00 %	1,036	11.85 %		194	137.21 %	9		
Sub-total					18	108,165	35,627	42.32 %	123,245	0.68 %	596,241	16.70 %		11,165	9.06 %	112	79	
Non-Canadian residential																		
Exceptionally low to Very low		0.00 to <0.15			19	1,273	5,577	59.03 %	4,565	0.04 %	41,763	67.72 %		403	8.82 %	1		
Very low to Low		0.15 to <0.25			20	5,411	66	100.00 %	5,477	0.17 %	12,206	20.43 %		413	7.54 %	2		
Low		0.25 to <0.50			21	514	210	51.09 %	621	0.37 %	5,814	69.94 %		292	47.03 %	2		
Low		0.50 to <0.75			22	1,099	15	100.00 %	1,114	0.71 %	6,208	29.33 %		339	30.40 %	2		
Medium		0.75 to <2.50			23	425	28	46.27 %	437	1.25 %	4,554	70.65 %		468	107.01 %	4		
Medium to High		2.50 to <10.00			24	409	2	98.14 %	411	3.72 %	2,704	37.08 %		473	115.12 %	6		
High		10.00 to <100.00			25	108	102	62.65 %	171	23.21 %	1,650	36.79 %		360	209.76 %	15		
Default		100.00 (Default)			26	233	-	64.05 %	233	100.00 %	5,383	42.61 %		709	304.15 %	67		
Sub-total					27	9,472	6,000	59.32 %	13,029	2.42 %	80,282	42.94 %		3,457	26.51 %	99	111	
Qualifying revolving retail																		
Exceptionally low to Very low		0.00 to <0.15			28	1,545	40,051	57.16 %	24,439	0.04 %	3,184,569	78.86 %		609	2.49 %	8		
Very low to Low		0.15 to <0.25			29	675	2,323	70.08 %	2,303	0.23 %	304,216	83.58 %		242	10.49 %	4		
Low		0.25 to <0.50			30	2,182	11,495	37.48 %	6,491	0.29 %	599,917	61.17 %		610	9.39 %	12		
Low		0.50 to <0.75			31	614	957	81.56 %	1,394	0.69 %	198,670	86.89 %		369	26.47 %	8		
Medium		0.75 to <2.50			32	3,120	3,030	45.88 %	4,510	1.25 %	374,789	75.94 %		1,639	36.33 %	43		
Medium to High		2.50 to <10.00			33	2,152	1,125	79.69 %	3,049	4.40 %	386,764	84.85 %		2,942	96.49 %	113		
High		10.00 to <100.00			34	506	216	61.51 %	638	24.61 %	80,270	74.53 %		1,209	189.25 %	120		
Default		100.00 (Default)			35	51	25	41.66 %	62	100.00 %	4,035	56.79 %		194	314.02 %	29		
Sub-total					36	10,845	59,222	54.10 %	42,886	1.06 %	5,133,230	76.72 %		7,814	18.21 %	337	463	
Retail small-and-medium-sized entities																		
Exceptionally low to Very low		0.00 to <0.15			37	1,494	3,062	75.89 %	4,267	0.08 %	61,954	58.95 %		605	14.18 %	2		
Very low to Low		0.15 to <0.25			38	127	574	66.46 %	508	0.19 %	36,833	88.99 %		185	36.38 %	1		
Low		0.25 to <0.50			39	84	306	70.60 %	300	0.44 %	18,846	88.20 %		187	62.39 %	1		
Low		0.50 to <0.75			40	2,021	439	86.49 %	2,306	0.58 %	13,808	56.08 %		1,068	46.32 %	7		
Medium		0.75 to <2.50			41	2,176	629	55.64 %	2,423	1.54 %	43,499	59.17 %		1,790	73.87 %	22		
Medium to High		2.50 to <10.00			42	3,466	234	47.93 %	3,336	4.10 %	25,568	58.28 %		2,975	89.19 %	83		
High		10.00 to <100.00			43	686	20	77.66 %	694	16.29 %	5,476	54.54 %		773	111.36 %	64		
Default		100.00 (Default)			44	161	3	96.51 %	161	100.00 %	4,618	59.55 %		676	419.23 %	58		
Sub-total					45	10,215	5,267	71.80 %	13,995	3.34 %	210,602	59.86 %		8,259	59.01 %	238	160	
Other retail																		
Exceptionally low to Very low		0.00 to <0.15			46	14,583	3,761	49.95 %	16,725	0.08 %	174,223	21.12 %		725	4.34 %	3		
Very low to Low		0.15 to <0.25			47	5,624	1,148	74.69 %	6,482	0.20 %	254,548	72.23 %		1,973	30.44 %	9		
Low		0.25 to <0.50			48	6,416	2,326	28.01 %	7,067	0.33 %	830,224	44.98 %		1,918	27.14 %	11		
Low		0.50 to <0.75			49	3,570	23	55.19 %	3,400	0.62 %	12,863	19.50 %		567	16.69 %	4		
Medium		0.75 to <2.50			50	9,189	703	41.43 %	9,433	1.38 %	527,371	46.79 %		5,256	55.73 %	63		
Medium to High		2.50 to <10.00			51	2,022	35	44.55 %	2,009	5.20 %	176,028	41.39 %		1,291	64.28 %	41		
High		10.00 to <100.00			52	1,074	297	34.25 %	1,175	19.81 %	257,511	64.57 %		1,575	134.02 %	147		
Default		100.00 (Default)			53	127	3	33.36 %	125	100.00 %	51,647	46.49 %		401	319.98 %	43		
Sub-total					54	42,605	8,296	45.92 %	46,416	1.43 %	2,284,415	39.03 %		13,706	29.53 %	321	256	
Total (all retail portfolios)						55	222,189	114,412	50.93 %	280,460	0.98 %	8,460,176	34.33 %		44,852	15.99 %	1,107	1,076

(1) Credit Risk excludes Counterparty Credit Risk, Securitization, Equity Investment in Funds, Settlement Risk and amounts below the thresholds for deduction subject to 250% risk weight.

(2) Columns "a" and "b" are grouped by the obligor's PD and columns "d" onwards are grouped by the guarantor, where applicable.

(3) PD bands in the table are as prescribed in revised Pillar 3 guidance and used for comparative purposes across banks.

(4) Calculated as EAD post-conversion factor for off-balance sheet exposure divided by total off-balance sheet exposure pre-conversion factor.

(5) Calculated as the obligor PD or guarantor PD, where applicable, weighted by EAD.

(6) Obligor count for Retail portfolios is at the account level.

(7) Calculated as the obligor LGD or guarantor LGD, where applicable, weighted by EAD.

CR6 - IRB - CREDIT RISK EXPOSURE BY PORTFOLIO AND PD RANGE - WHOLESALE (1) (2) (3)

(\$ millions except as noted)

CR6 - IRB - CREDIT RISK EXPOSURE BY PORTFOLIO AND PD RANGE - WHOLESALE (1) (2) (3) (\$ millions except as noted)						Q1 2022												
						Original on- balance sheet gross exposure	Off-balance sheet exposures pre-CCF	Average CCF (4)	EAD post-CRM and post- CCF	Average PD (5)	Number of obligors (6)	Average LGD (7)	Average maturity (years) (8)	RWA	RWA density	EL	Provisions	
Risk Profile	BMO Rating	PD Scale (%)	Moody's Investors Service implied equivalent	Standard & Poor's implied equivalent	LINE #	a	b	c	d	e	f	g	h	i	j	k	l	
Corporate																		
Investment grade	I-1, I-2, I-3, I-4, I-5	0.00 to <0.15	Aaa to Baa1	AAA to BBB+	56	62,616	101,782	49.98 %	122,677	0.08 %	6,451	35.08 %	2.07	23,955	19.53 %	36		
Investment grade	I-5, I-6	0.15 to <0.25	Baa1 to Baa2	BBB+ to BBB	57	39,408	55,253	46.41 %	63,641	0.20 %	6,947	35.52 %	2.26	22,148	34.80 %	45		
Investment grade	I-6, I-7	0.25 to <0.50	Baa2 to Baa3	BBB to BBB-	58	50,117	45,651	46.48 %	68,871	0.32 %	10,380	34.92 %	2.25	29,436	42.74 %	77		
Investment grade to Non-investment grade	I-7, S-1	0.50 to <0.75	Baa3 to Ba1	BBB- to BB+	59	40,717	34,128	50.33 %	55,470	0.59 %	8,164	33.42 %	2.36	30,597	55.16 %	111		
Non-investment grade	S-1, S-2, S-3	0.75 to <2.50	Ba1 to Ba3	BB+ to BB-	60	40,649	29,009	51.17 %	53,393	1.26 %	10,936	34.39 %	2.48	40,185	75.26 %	228		
Non-investment grade to Watchlist	S-3, S-4, P-1, P-2	2.50 to <10.00	Ba3 to Caa1	BB- to B-	61	9,205	6,560	53.40 %	12,062	3.77 %	3,714	33.94 %	2.09	11,790	97.75 %	155		
Watchlist	P-2, P-3	10.00 to <100.00	Caa1 to Ca	B- to CC	62	2,213	968	58.67 %	2,674	14.49 %	983	37.35 %	1.89	4,497	168.13 %	145		
Default	Default	100.00 (Default)	C	C to D	63	1,737	562	100.00 %	2,262	100.00 %	541	37.45 %	2.52	5,792	256.12 %	669		
Sub-total					64	246,662	273,913	49.06 %	381,050	1.19 %	48,116	34.78 %		168,400	44.19 %	1,466	1,912	
Sovereign																		
Investment grade	I-1, I-2, I-3, I-4, I-5	0.00 to <0.15	Aaa to Baa1	AAA to BBB+	65	181,707	7,306	60.75 %	186,214	0.01 %	1,852	3.92 %	3.08	4,511	2.42 %	3		
Investment grade	I-5, I-6	0.15 to <0.25	Baa1 to Baa2	BBB+ to BBB	66	184	133	78.36 %	268	0.20 %	118	28.48 %	2.10	72	26.80 %	-		
Investment grade	I-6, I-7	0.25 to <0.50	Baa2 to Baa3	BBB to BBB-	67	431	343	40.07 %	548	0.32 %	100	26.03 %	1.99	171	31.22 %	-		
Investment grade to Non-investment grade	I-7, S-1	0.50 to <0.75	Baa3 to Ba1	BBB- to BB+	68	134	28	29.15 %	135	0.62 %	68	25.93 %	2.01	59	43.63 %	-		
Non-investment grade	S-1, S-2, S-3	0.75 to <2.50	Ba1 to Ba3	BB+ to BB-	69	87	32	39.52 %	81	1.13 %	79	42.24 %	1.31	64	79.04 %	-		
Non-investment grade to Watchlist	S-3, S-4, P-1, P-2	2.50 to <10.00	Ba3 to Caa1	BB- to B-	70	241	26	42.78 %	251	2.74 %	60	16.55 %	2.84	117	46.54 %	1		
Watchlist	P-2, P-3	10.00 to <100.00	Caa1 to Ca	B- to CC	71	1	-	-	-	13.95 %	3	32.84 %	1.00	-	154.71 %	-		
Default	Default	100.00 (Default)	C	C to D	72	4	-	-	4	100.00 %	5	39.37 %	2.50	19	499.04 %	-		
Sub-total					73	182,789	7,868	59.89 %	187,501	0.02 %	2,285	4.07 %		5,013	2.67 %	4	7	
Bank																		
Investment grade	I-1, I-2, I-3, I-4, I-5	0.00 to <0.15	Aaa to Baa1	AAA to BBB+	74	9,858	5,583	70.27 %	14,810	0.07 %	218	16.79 %	1.17	1,137	7.67 %	2		
Investment grade	I-5, I-6	0.15 to <0.25	Baa1 to Baa2	BBB+ to BBB	75	2,325	3,872	62.17 %	4,505	0.19 %	101	16.03 %	1.09	528	11.72 %	1		
Investment grade	I-6, I-7	0.25 to <0.50	Baa2 to Baa3	BBB to BBB-	76	1,621	1,691	62.72 %	2,337	0.32 %	76	12.28 %	0.95	284	12.16 %	1		
Investment grade to Non-investment grade	I-7, S-1	0.50 to <0.75	Baa3 to Ba1	BBB- to BB+	77	3,268	159	63.94 %	3,357	0.54 %	39	10.86 %	2.32	605	18.03 %	2		
Non-investment grade	S-1, S-2, S-3	0.75 to <2.50	Ba1 to Ba3	BB+ to BB-	78	1,761	20	80.93 %	1,567	1.50 %	40	16.86 %	0.84	620	39.60 %	4		
Non-investment grade to Watchlist	S-3, S-4, P-1, P-2	2.50 to <10.00	Ba3 to Caa1	BB- to B-	79	389	33	50.28 %	169	2.75 %	22	22.43 %	0.51	94	55.77 %	1		
Watchlist	P-2, P-3	10.00 to <100.00	Caa1 to Ca	B- to CC	80	11	-	-	11	13.46 %	1	35.00 %	1.00	18	162.79 %	1		
Default	Default	100.00 (Default)	C	C to D	81	-	-	-	-	-	-	-	-	-	-	-		
Sub-total					82	19,233	11,358	66.26 %	26,756	0.28 %	497	15.57 %		3,286	12.28 %	12	7	
Total (all wholesale portfolios)						83	448,684	293,139	50.02 %	595,307	0.78 %	50,898	24.24 %		176,699	29.68 %	1,482	1,926

(1) Credit Risk excludes Counterparty Credit Risk, Securitization, Equity Investment in Funds, Settlement Risk and amounts below the thresholds for deduction subject to 250% risk weight.

(2) Columns "a" and "b" are grouped by the obligor's PD and columns "d" onwards are grouped by the guarantor, where applicable.

(3) PD bands in the table are as prescribed in revised Pillar 3 guidance and used for comparative purposes across banks.

(4) Calculated as EAD post-conversion factor for off-balance sheet exposure divided by total off-balance sheet exposure pre-conversion factor.

(5) Calculated as the obligor PD or guarantor PD, where applicable, weighted by EAD.

(6) Obligor count for Wholesale portfolios is at the borrower level.

(7) Calculated as the obligor LGD or guarantor LGD, where applicable, weighted by EAD.

(8) Calculated as the effective maturity in years weighted by EAD.

CR6 - IRB - CREDIT RISK EXPOSURE BY PORTFOLIO AND PD RANGE - RETAIL (1) (2) (3)

(\$ millions except as noted)

CR6 - IRB - CREDIT RISK EXPOSURE BY PORTFOLIO AND PD RANGE - RETAIL (1) (2) (3) (\$ millions except as noted)						Q4 2021												
						Original on- balance sheet gross exposure	Off-balance sheet exposures pre-CCF	Average CCF (4)	EAD post- CRM and post-CCF	Average PD (5)	Number of obligors (6)	Average LGD (7)	Average maturity (years)	RWA	RWA density	EL	Provisions	
						a	b	c	d	e	f	g	h	i	j	k	l	
Risk Profile	BMO Rating	PD Scale (%)	Moody's Investors Service implied equivalent	Standard & Poor's implied equivalent	LINE #													
Canadian insured residential																		
Exceptionally low to Very low		0.00 to <0.15			1	31,340	-	-	41,917	-	133,801	26.08 %		453	1.05 %	-		
Very low to Low		0.15 to <0.25			2	-	-	-	-	-	-	-		-	-	-		
Low		0.25 to <0.50			3	-	-	-	-	-	-	-		-	-	-		
Low		0.50 to <0.75			4	6,762	-	-	-	-	14,189	-		-	-	-		
Medium		0.75 to <2.50			5	2,068	-	-	-	-	5,389	-		-	-	-		
Medium to High		2.50 to <10.00			6	1,520	-	-	-	-	4,504	-		-	-	-		
High		10.00 to <100.00			7	118	-	-	-	-	509	-		-	-	-		
Default		100.00 (Default)			8	110	-	-	-	-	495	-		-	-	-		
Sub-total					9	41,918	-	-	41,917	-	158,887	26.08 %		453	1.05 %	-	5	
Canadian uninsured residential																		
Exceptionally low to Very low		0.00 to <0.15			10	69,954	32,429	43.12 %	83,937	0.09 %	454,484	16.21 %		3,048	3.63 %	12		
Very low to Low		0.15 to <0.25			11	8,687	1,552	26.95 %	9,105	0.22 %	48,678	18.60 %		771	8.46 %	4		
Low		0.25 to <0.50			12	-	-	-	-	-	-	-		-	-	-		
Low		0.50 to <0.75			13	14,088	23	73.93 %	14,105	0.62 %	39,247	16.52 %		2,230	15.81 %	14		
Medium		0.75 to <2.50			14	7,790	502	24.66 %	7,914	1.18 %	31,036	16.99 %		1,963	24.80 %	16		
Medium to High		2.50 to <10.00			15	4,494	91	37.02 %	4,527	6.65 %	13,277	13.91 %		2,499	55.20 %	41		
High		10.00 to <100.00			16	288	18	24.02 %	293	43.12 %	1,665	13.57 %		213	72.68 %	16		
Default		100.00 (Default)			17	131	15	19.06 %	134	100.00 %	1,017	10.99 %		168	124.95 %	9		
Sub-total					18	105,432	34,630	42.11 %	120,015	0.70 %	589,404	16.38 %		10,892	9.07 %	112	77	
Non-Canadian residential																		
Exceptionally low to Very low		0.00 to <0.15			19	1,258	5,376	59.02 %	4,431	0.04 %	41,701	67.27 %		388	8.76 %	1		
Very low to Low		0.15 to <0.25			20	5,449	49	100.00 %	5,499	0.17 %	12,941	20.92 %		425	7.72 %	2		
Low		0.25 to <0.50			21	492	189	51.42 %	590	0.37 %	5,836	69.55 %		276	46.77 %	2		
Low		0.50 to <0.75			22	1,063	10	100.00 %	1,073	0.71 %	6,628	30.23 %		335	31.24 %	2		
Medium		0.75 to <2.50			23	409	24	46.85 %	420	1.25 %	4,583	70.18 %		447	106.32 %	4		
Medium to High		2.50 to <10.00			24	388	3	95.65 %	391	3.75 %	2,807	38.09 %		465	118.73 %	6		
High		10.00 to <100.00			25	130	102	63.00 %	194	24.27 %	1,754	36.14 %		396	204.16 %	18		
Default		100.00 (Default)			26	243	-	56.71 %	243	100.00 %	5,805	42.05 %		732	301.26 %	68		
Sub-total					27	9,432	5,753	59.23 %	12,841	2.58 %	82,055	42.69 %		3,464	26.97 %	103	117	
Qualifying revolving retail																		
Exceptionally low to Very low		0.00 to <0.15			28	1,433	38,624	56.71 %	23,339	0.04 %	3,103,445	78.52 %		568	2.43 %	8		
Very low to Low		0.15 to <0.25			29	605	2,361	68.65 %	2,225	0.23 %	314,606	83.20 %		232	10.44 %	4		
Low		0.25 to <0.50			30	1,963	9,342	37.68 %	5,483	0.29 %	433,980	54.68 %		464	8.46 %	9		
Low		0.50 to <0.75			31	535	954	79.82 %	1,296	0.69 %	200,963	86.11 %		340	26.22 %	8		
Medium		0.75 to <2.50			32	2,856	2,771	45.55 %	4,118	1.24 %	332,121	74.11 %		1,454	35.32 %	38		
Medium to High		2.50 to <10.00			33	1,905	1,037	79.13 %	2,726	4.37 %	359,431	83.60 %		2,576	94.52 %	99		
High		10.00 to <100.00			34	460	219	61.46 %	594	22.90 %	75,180	71.70 %		1,082	182.05 %	101		
Default		100.00 (Default)			35	54	28	42.34 %	66	100.00 %	4,208	56.47 %		190	287.19 %	33		
Sub-total					36	9,811	55,336	54.28 %	39,847	1.03 %	4,823,934	75.50 %		6,906	17.33 %	300	485	
Retail small-and-medium-sized entities																		
Exceptionally low to Very low		0.00 to <0.15			37	1,502	2,999	75.97 %	4,542	0.08 %	60,325	56.61 %		623	13.72 %	2		
Very low to Low		0.15 to <0.25			38	129	539	65.17 %	480	0.19 %	36,089	89.01 %		175	36.39 %	1		
Low		0.25 to <0.50			39	88	285	69.93 %	287	0.44 %	17,520	88.21 %		179	62.40 %	1		
Low		0.50 to <0.75			40	1,973	436	85.56 %	2,269	0.58 %	13,875	58.34 %		1,092	48.13 %	8		
Medium		0.75 to <2.50			41	2,110	617	56.02 %	2,362	1.54 %	43,803	60.03 %		1,771	74.96 %	21		
Medium to High		2.50 to <10.00			42	3,731	215	48.28 %	3,270	4.06 %	25,181	58.18 %		2,907	88.91 %	80		
High		10.00 to <100.00			43	694	21	76.56 %	686	16.90 %	5,463	54.92 %		778	113.45 %	66		
Default		100.00 (Default)			44	156	3	96.15 %	158	100.00 %	6,052	62.04 %		1,166	738.77 %	12		
Sub-total					45	10,383	5,115	71.76 %	14,054	3.29 %	208,308	59.56 %		8,691	61.85 %	191	172	
Other retail																		
Exceptionally low to Very low		0.00 to <0.15			46	13,730	3,644	49.36 %	15,793	0.08 %	191,000	20.46 %		655	4.15 %	2		
Very low to Low		0.15 to <0.25			47	5,795	1,119	74.69 %	6,631	0.20 %	258,092	73.18 %		2,045	30.83 %	9		
Low		0.25 to <0.50			48	6,276	2,185	27.60 %	6,879	0.33 %	836,390	44.88 %		1,865	27.11 %	11		
Low		0.50 to <0.75			49	3,301	25	55.38 %	3,134	0.62 %	12,442	19.04 %		511	16.32 %	4		
Medium		0.75 to <2.50			50	8,993	686	43.19 %	9,239	1.37 %	512,974	46.70 %		5,135	55.58 %	61		
Medium to High		2.50 to <10.00			51	1,949	33	47.91 %	1,937	5.15 %	153,215	41.54 %		1,246	64.35 %	39		
High		10.00 to <100.00			52	1,069	316	32.73 %	1,171	19.28 %	226,904	63.98 %		1,556	132.89 %	142		
Default		100.00 (Default)			53	122	3	54.61 %	121	100.00 %	67,748	45.13 %		372	306.84 %	41		
Sub-total					54	41,235	8,011	45.79 %	44,905	1.43 %	2,258,765	39.40 %		13,385	29.81 %	309	244	
Total (all retail portfolios)																		
					55	218,211	108,845	50.87 %	273,579	0.98 %	8,121,353	33.71 %		43,791	16.00 %	1,015	1,100	

(1) Credit Risk excludes Counterparty Credit Risk, Securitization, Equity Investment in Funds, Settlement Risk and amounts below the thresholds for deduction subject to 250% risk weight.

(2) Columns "a" and "b" are grouped by the obligor's PD and columns "d" onwards are grouped by the guarantor, where applicable.

(3) PD bands in the table are as prescribed in revised Pillar 3 guidance and used for comparative purposes across banks.

(4) Calculated as EAD post-conversion factor for off-balance sheet exposure divided by total off-balance sheet exposure pre-conversion factor.

(5) Calculated as the obligor PD or guarantor PD, where applicable, weighted by EAD.

(6) Obligor count for Retail portfolios is at the account level.

(7) Calculated as the obligor LGD or guarantor LGD, where applicable, weighted by EAD.

CR6 - IRB - CREDIT RISK EXPOSURE BY PORTFOLIO AND PD RANGE - WHOLESALE (1) (2) (3)

(\$ millions except as noted)

CR6 - IRB - CREDIT RISK EXPOSURE BY PORTFOLIO AND PD RANGE - WHOLESALE (1) (2) (3) (\$ millions except as noted)						Q4 2021											
						Original on- balance sheet gross exposure	Off-balance sheet exposures pre-CCF	Average CCF (4)	EAD post-CRM and post- CCF	Average PD (5)	Number of obligors (6)	Average LGD (7)	Average maturity (years) (8)	RWA	RWA density	EL	Provisions
Risk Profile	BMO Rating	PD Scale (%)	Moody's Investors Service implied equivalent	Standard & Poor's implied equivalent	LINE #	a	b	c	d	e	f	g	h	i	j	k	l
Corporate																	
Investment grade	I-1, I-2, I-3, I-4, I-5	0.00 to <0.15	Aaa to Baa1	AAA to BBB+	56	52,796	98,172	48.47 %	108,938	0.08 %	5,930	34.51 %	2.02	20,710	19.01 %	31	
Investment grade	I-5, I-6	0.15 to <0.25	Baa1 to Baa2	BBB+ to BBB	57	35,324	47,959	45.27 %	55,670	0.20 %	6,327	35.27 %	2.16	19,009	34.15 %	39	
Investment grade	I-6, I-7	0.25 to <0.50	Baa2 to Baa3	BBB to BBB-	58	45,062	44,215	44.99 %	62,880	0.32 %	9,951	35.19 %	2.22	26,874	42.74 %	71	
Investment grade to Non-investment grade	I-7, S-1	0.50 to <0.75	Baa3 to Ba1	BBB- to BB+	59	36,190	33,334	44.61 %	48,925	0.60 %	7,780	33.88 %	2.26	26,860	54.90 %	99	
Non-investment grade	S-1, S-2, S-3	0.75 to <2.50	Ba1 to Ba3	BB+ to BB-	60	37,943	27,041	45.44 %	48,155	1.27 %	10,843	34.35 %	2.34	35,373	73.46 %	208	
Non-investment grade to Watchlist	S-3, S-4, P-1, P-2	2.50 to <10.00	Ba3 to Caa1	BB- to B-	61	7,898	6,455	48.83 %	10,430	3.80 %	3,232	33.02 %	2.00	9,823	94.18 %	132	
Watchlist	P-2, P-3	10.00 to <100.00	Caa1 to Ca	B- to CC	62	2,490	978	51.24 %	2,857	14.26 %	958	37.29 %	1.95	4,873	170.56 %	152	
Default	Default	100.00 (Default)	C	C to D	63	1,432	728	100.00 %	2,014	100.00 %	452	36.70 %	2.36	4,510	223.92 %	633	
Sub-total					64	219,135	258,882	46.63 %	339,869	1.21 %	45,473	34.64 %		148,032	43.56 %	1,365	1,914
Sovereign																	
Investment grade	I-1, I-2, I-3, I-4, I-5	0.00 to <0.15	Aaa to Baa1	AAA to BBB+	65	196,638	7,268	60.93 %	201,145	0.01 %	1,798	3.93 %	2.41	4,965	2.47 %	4	
Investment grade	I-5, I-6	0.15 to <0.25	Baa1 to Baa2	BBB+ to BBB	66	346	139	74.05 %	430	0.20 %	104	16.45 %	1.66	62	14.51 %	-	
Investment grade	I-6, I-7	0.25 to <0.50	Baa2 to Baa3	BBB to BBB-	67	305	190	39.86 %	356	0.31 %	89	24.98 %	1.99	107	30.03 %	-	
Investment grade to Non-investment grade	I-7, S-1	0.50 to <0.75	Baa3 to Ba1	BBB- to BB+	68	185	29	29.55 %	180	0.61 %	68	38.53 %	2.06	121	67.12 %	-	
Non-investment grade	S-1, S-2, S-3	0.75 to <2.50	Ba1 to Ba3	BB+ to BB-	69	136	106	39.40 %	158	1.12 %	102	27.38 %	1.43	79	49.58 %	-	
Non-investment grade to Watchlist	S-3, S-4, P-1, P-2	2.50 to <10.00	Ba3 to Caa1	BB- to B-	70	211	24	43.68 %	220	2.74 %	58	21.45 %	3.16	136	61.94 %	1	
Watchlist	P-2, P-3	10.00 to <100.00	Caa1 to Ca	B- to CC	71	1	-	-	-	-	4	-	1.00	-	154.71 %	-	
Default	Default	100.00 (Default)	C	C to D	72	5	-	-	5	100.00 %	3	44.99 %	2.14	30	596.15 %	-	
Sub-total					73	197,827	7,756	60.18 %	202,494	0.02 %	2,226	4.06 %		5,500	2.72 %	5	7
Bank																	
Investment grade	I-1, I-2, I-3, I-4, I-5	0.00 to <0.15	Aaa to Baa1	AAA to BBB+	74	10,155	4,579	72.98 %	14,565	0.07 %	175	17.42 %	1.20	1,109	7.62 %	2	
Investment grade	I-5, I-6	0.15 to <0.25	Baa1 to Baa2	BBB+ to BBB	75	2,005	4,713	61.90 %	4,548	0.19 %	77	15.62 %	1.22	516	11.34 %	1	
Investment grade	I-6, I-7	0.25 to <0.50	Baa2 to Baa3	BBB to BBB-	76	1,309	1,766	61.97 %	2,070	0.32 %	74	12.77 %	1.12	283	13.66 %	1	
Investment grade to Non-investment grade	I-7, S-1	0.50 to <0.75	Baa3 to Ba1	BBB- to BB+	77	3,651	145	64.68 %	3,733	0.54 %	28	10.67 %	2.16	638	17.08 %	2	
Non-investment grade	S-1, S-2, S-3	0.75 to <2.50	Ba1 to Ba3	BB+ to BB-	78	1,321	37	60.57 %	1,188	1.46 %	40	14.95 %	0.45	369	31.08 %	3	
Non-investment grade to Watchlist	S-3, S-4, P-1, P-2	2.50 to <10.00	Ba3 to Caa1	BB- to B-	79	292	40	91.67 %	136	2.75 %	22	20.72 %	0.41	70	51.67 %	1	
Watchlist	P-2, P-3	10.00 to <100.00	Caa1 to Ca	B- to CC	80	11	-	-	11	-	1	-	1.00	7	62.61 %	-	
Default	Default	100.00 (Default)	C	C to D	81	-	-	-	-	-	-	-	-	-	-	-	
Sub-total					82	18,744	11,280	66.55 %	26,251	0.26 %	417	15.69 %		2,992	11.40 %	10	7
Total (all wholesale portfolios)					83	435,706	277,918	47.82 %	568,614	0.74 %	48,116	22.87 %		156,524	27.53 %	1,380	1,928

(1) Credit Risk excludes Counterparty Credit Risk, Securitization, Equity Investment in Funds, Settlement Risk and amounts below the thresholds for deduction subject to 250% risk weight.

(2) Columns "a" and "b" are grouped by the obligor's PD and columns "d" onwards are grouped by the guarantor, where applicable.

(3) PD bands in the table are as prescribed in revised Pillar 3 guidance and used for comparative purposes across banks.

(4) Calculated as EAD post-conversion factor for off-balance sheet exposure divided by total off-balance sheet exposure pre-conversion factor.

(5) Calculated as the obligor PD or guarantor PD, where applicable, weighted by EAD.

(6) Obligor count for Wholesale portfolios is at the borrower level.

(7) Calculated as the obligor LGD or guarantor LGD, where applicable, weighted by EAD.

(8) Calculated as the effective maturity in years weighted by EAD.

**CR8 - RWA FLOW STATEMENTS OF CREDIT RISK
AND COUNTERPARTY CREDIT RISK EXPOSURES (1)**

(\$ millions)

		Q4 2022			Q3 2022		
		Credit risk, of which		Counterparty credit risk (2)	Credit risk, of which		Counterparty credit risk (2)
		AIRB	Standardized		AIRB	Standardized	
		a	b	c	d	e	f
1	RWA as at beginning of reporting period	227,199	27,285	17,144	214,657	25,820	19,344
2	Asset size (3)	(2,260)	(265)	(2,455)	15,500	1,478	(1,808)
3	Asset quality (4)	(2,278)	5	(155)	(3,336)	3	(364)
4	Model updates (5)	-	-	-	619	-	-
5	Methodology and policy (6)	3,261	(6,022)	-	-	-	-
6	Acquisitions and disposals	-	-	-	-	-	-
7	Foreign exchange movements	7,815	664	500	(241)	(16)	(28)
8	Other	-	-	-	-	-	-
9	RWA as at end of reporting period	233,737	21,667	15,034	227,199	27,285	17,144

**CR8 - RWA FLOW STATEMENTS OF CREDIT RISK
AND COUNTERPARTY CREDIT RISK EXPOSURES (1)**

(\$ millions)

		Q2 2022			Q1 2022		
		Credit risk, of which		Counterparty credit risk (2)	Credit risk, of which		Counterparty credit risk (2)
		AIRB	Standardized		AIRB	Standardized	
		a	b	c	d	e	f
1	RWA as at beginning of reporting period	221,551	26,561	18,941	200,315	37,388	18,047
2	Asset size (3)	(1,850)	219	1,310	13,317	1,583	1,012
3	Asset quality (4)	(5,612)	(7)	(781)	(2,823)	2	(29)
4	Model updates (5)	(982)	-	-	-	-	-
5	Methodology and policy (6)	315	(1,060)	-	8,055	(12,672)	-
6	Acquisitions and disposals	-	-	-	(34)	(291)	-
7	Foreign exchange movements	1,235	107	(126)	2,721	551	(89)
8	Other	-	-	-	-	-	-
9	RWA as at end of reporting period	214,657	25,820	19,344	221,551	26,561	18,941

**CR8 - RWA FLOW STATEMENTS OF CREDIT RISK
AND COUNTERPARTY CREDIT RISK EXPOSURES (1)**

(\$ millions)

		Q4 2021		
		Credit risk, of which		Counterparty credit risk (2)
		AIRB	Standardized	
		a	b	c
1	RWA as at beginning of reporting period	200,458	35,554	19,865
2	Asset size (3)	5,245	1,986	(1,190)
3	Asset quality (4)	(4,208)	21	(548)
4	Model updates (5)	(280)	-	-
5	Methodology and policy (6)	-	-	-
6	Acquisitions and disposals	-	-	-
7	Foreign exchange movements	(900)	(173)	(80)
8	Other	-	-	-
9	RWA as at end of reporting period	200,315	37,388	18,047

(1) Credit Risk excludes RWA for Securitization, Equity Investment in Funds, Settlement Risk and amounts below the thresholds for deduction subject to 250% risk weight.

(2) Counterparty Credit Risk includes RWA for derivatives, SFTs, trades cleared through central counterparties and CVA charge.

(3) Asset size includes organic changes in book size and composition (including new business and maturing loans).

(4) Asset quality captures the quality of book changes caused by experience such as underlying customer behaviour or demographics, including changes through model calibrations/realignments.

(5) Model updates include model implementation, change in model scope or any change to address model malfunctions.

(6) Methodology and policy include methodology changes to the calculations driven by regulatory policy changes, such as new or revised regulation.

EXPOSURE COVERED BY CREDIT RISK MITIGATION (1) (2) (3)		Q4 2022				Q3 2022			
		Standardized		AIRB		Standardized		AIRB	
		EAD post-CRM and post-CCF	Of which exposure amount covered by guarantees or credit derivatives	EAD post-CRM and post-CCF	Of which exposure amount covered by guarantees or credit derivatives	EAD post-CRM and post-CCF	Of which exposure amount covered by guarantees or credit derivatives	EAD post-CRM and post-CCF	Of which exposure amount covered by guarantees or credit derivatives
(\$ millions)	LINE #								
Corporate (incl specialized lending and SMEs treated as corporate)	1	1,515	5	422,459	14,586	7,491	81	401,775	13,261
Sovereign	2	2	-	233,930	111	1	-	205,312	179
Bank	3	56	-	21,638	952	37	-	27,506	924
Total Wholesale	4	1,573	5	678,027	15,649	7,529	81	634,593	14,364
Residential mortgages excluding home equity line of credits (HELOCs)	5	503	-	127,520	39,014	513	-	123,507	38,769
HELOCs	6	48	-	61,598	-	52	-	61,393	-
Other retail	7	4,154	431	52,386	1,140	4,201	448	50,464	1,154
Qualifying revolving retail	8	-	-	43,351	-	-	-	44,090	-
Retail SMEs	9	2,056	2	16,831	333	1,870	-	16,167	365
Total Retail	10	6,761	433	301,686	40,487	6,636	448	295,621	40,288
Other assets	11	11,550	-	-	-	11,197	-	-	-
Equity	12	2,739	-	-	-	2,561	-	-	-
Total Bank	13	22,623	438	979,713	56,136	27,923	529	930,214	54,652

EXPOSURE COVERED BY CREDIT RISK MITIGATION (1) (2) (3)		Q2 2022				Q1 2022			
		Standardized		AIRB		Standardized		AIRB	
		EAD post-CRM and post-CCF	Of which exposure amount covered by guarantees or credit derivatives	EAD post-CRM and post-CCF	Of which exposure amount covered by guarantees or credit derivatives	EAD post-CRM and post-CCF	Of which exposure amount covered by guarantees or credit derivatives	EAD post-CRM and post-CCF	Of which exposure amount covered by guarantees or credit derivatives
(\$ millions)	LINE #								
Corporate (incl specialized lending and SMEs treated as corporate)	1	7,147	105	388,227	12,335	8,201	171	381,050	12,272
Sovereign	2	1	-	202,910	259	1	-	187,501	262
Bank	3	47	-	28,551	1,085	31	-	26,756	1,045
Total Wholesale	4	7,195	105	619,688	13,679	8,233	171	595,307	13,579
Residential mortgages excluding home equity line of credits (HELOCs)	5	550	-	120,382	37,878	594	-	118,755	40,641
HELOCs	6	60	-	59,611	-	67	-	58,408	-
Other retail	7	4,225	472	48,234	1,176	3,943	462	46,416	1,234
Qualifying revolving retail	8	-	-	42,555	-	-	-	42,886	-
Retail SMEs	9	1,910	-	13,871	360	1,787	-	13,995	478
Total Retail	10	6,745	472	284,653	39,414	6,391	462	280,460	42,353
Other assets	11	9,722	-	-	-	10,406	-	-	-
Equity	12	2,366	-	-	-	2,212	-	-	-
Total Bank	13	26,028	577	904,341	53,093	27,242	633	875,767	55,932

EXPOSURE COVERED BY CREDIT RISK MITIGATION (1) (2) (3)		Q4 2021			
		Standardized		AIRB	
		EAD post-CRM and post-CCF	Of which exposure amount covered by guarantees or credit derivatives	EAD post-CRM and post-CCF	Of which exposure amount covered by guarantees or credit derivatives
(\$ millions)	LINE #				
Corporate (incl specialized lending and SMEs treated as corporate)	1	19,009	1,002	339,869	11,322
Sovereign	2	234	-	202,494	136
Bank	3	297	-	26,251	1,069
Total Wholesale	4	19,540	1,002	568,614	12,527
Residential mortgages excluding home equity line of credits (HELOCs)	5	628	-	118,223	41,752
HELOCs	6	73	-	56,550	-
Other retail	7	4,101	443	44,905	1,276
Qualifying revolving retail	8	-	-	39,847	-
Retail SMEs	9	1,705	-	14,054	788
Total Retail	10	6,507	443	273,579	43,816
Other assets	11	10,978	-	-	-
Equity	12	1,828	-	-	-
Total Bank	13	38,853	1,445	842,193	56,343

(1) Credit Risk excludes Counterparty Credit Risk, Securitization, Equity Investment in Funds, Settlement Risk and amounts below the thresholds for deduction subject to 250% risk weight.

(2) Credit risk mitigants herein include only credit derivatives and guarantees. Collateral is reflected in the risk parameters (PDs, LGDs) for AIRB exposures and risk weights for exposures under the Standardized Approach.

(3) As at October 31, 2022 the RWA impact of credit derivatives used as CRM techniques is a decrease of \$7 million (July 31, 2022 a decrease of \$7 million, April 30, 2022 a decrease of \$7 million, January 31, 2022 a decrease of \$8 million, October 31, 2021 \$nil).

CREDIT RISK EXPOSURE BY GEOGRAPHIC REGION (1) (\$ millions)	LINE #	Q4 2022				Q3 2022			
		Canada	U.S.	Other	Total	Canada	U.S.	Other	Total
Corporate (incl specialized lending and SMEs treated as corporate)	1	173,789	237,047	13,138	423,974	167,645	228,084	13,537	409,266
Sovereign	2	75,295	149,050	9,587	233,932	63,796	130,216	11,301	205,313
Bank	3	1,557	7,622	12,515	21,694	5,597	7,298	14,648	27,543
Total Wholesale	4	250,641	393,719	35,240	679,600	237,038	365,598	39,486	642,122
Residential mortgages excluding home equity line of credits (HELOCs)	5	118,464	9,559	-	128,023	115,549	8,471	-	124,020
HELOCs	6	54,900	6,746	-	61,646	55,189	6,256	-	61,445
Other retail	7	43,687	12,853	-	56,540	41,923	12,742	-	54,665
Qualifying revolving retail	8	41,648	1,703	-	43,351	42,583	1,507	-	44,090
Retail SMEs	9	11,669	7,150	68	18,887	11,403	6,569	65	18,037
Total Retail	10	270,368	38,011	68	308,447	266,647	35,545	65	302,257
Other assets	11	8,060	3,211	279	11,550	8,002	2,944	251	11,197
Equity	12	264	2,269	206	2,739	210	2,110	241	2,561
Total Bank	13	529,333	437,210	35,793	1,002,336	511,897	406,197	40,043	958,137

CREDIT RISK EXPOSURE BY GEOGRAPHIC REGION (1)	LINE	Q2 2022				Q1 2022			
		Canada	U.S.	Other	Total	Canada	U.S.	Other	Total
(\$ millions)	#								
Corporate (incl specialized lending and SMEs treated as corporate)	1	163,135	219,213	13,026	395,374	157,720	218,761	12,770	389,251
Sovereign	2	66,649	124,866	11,396	202,911	46,832	131,120	9,550	187,502
Bank	3	5,610	7,867	15,121	28,598	5,065	6,355	15,367	26,787
Total Wholesale	4	235,394	351,946	39,543	626,883	209,617	356,236	37,687	603,540
Residential mortgages excluding home equity line of credits (HELOCs)	5	112,844	8,088	-	120,932	111,649	7,700	-	119,349
HELOCs	6	53,556	6,115	-	59,671	52,484	5,991	-	58,475
Other retail	7	39,974	12,485	-	52,459	38,093	12,266	-	50,359
Qualifying revolving retail	8	41,100	1,455	-	42,555	41,504	1,382	-	42,886
Retail SMEs	9	9,055	6,716	10	15,781	8,830	6,943	9	15,782
Total Retail	10	256,529	34,859	10	291,398	252,560	34,282	9	286,851
Other assets	11	6,489	2,931	302	9,722	7,350	2,823	233	10,406
Equity	12	223	1,842	301	2,366	177	1,760	275	2,212
Total Bank	13	498,635	391,578	40,156	930,369	469,704	395,101	38,204	903,009

CREDIT RISK EXPOSURE BY GEOGRAPHIC REGION (1)	LINE #	Q4 2021			
		Canada	U.S.	Other	Total
		(\$ millions)			
Corporate (incl specialized lending and SMEs treated as corporate)	1	153,324	194,360	11,194	358,878
Sovereign	2	70,831	119,297	12,600	202,728
Bank	3	5,106	6,625	14,817	26,548
Total Wholesale	4	229,261	320,282	38,611	588,154
Residential mortgages excluding home equity line of credits (HELOCs)	5	111,127	7,724	-	118,851
HELOCs	6	50,805	5,818	-	56,623
Other retail	7	36,903	12,103	-	49,006
Qualifying revolving retail	8	39,847	-	-	39,847
Retail SMEs	9	8,619	7,132	8	15,759
Total Retail	10	247,301	32,777	8	280,086
Other assets	11	7,582	2,906	490	10,978
Equity	12	163	1,461	204	1,828
Total Bank	13	484,307	357,426	39,313	881,046

(1) Credit Risk excludes Counterparty Credit Risk, Securitization, Equity Investment in Funds, Settlement Risk and amounts below the thresholds for deduction subject to 250% risk weight.

CREDIT RISK EXPOSURE BY MAJOR ASSET CLASS (1)

(\$ millions)	LINE #	Q4 2022				Q3 2022				Q2 2022	Q1 2022	Q4 2021
		Drawn	Commitments (undrawn) (2)	Other off-balance sheet items (3)	Total	Drawn	Commitments (undrawn) (2)	Other off-balance sheet items (3)	Total	Total	Total	Total
Corporate (incl specialized lending and SMEs treated as corporate)	1	284,551	115,569	23,854	423,974	268,597	117,867	22,802	409,266	395,374	389,251	358,878
Sovereign	2	228,757	3,710	1,465	233,932	200,676	3,063	1,574	205,313	202,911	187,502	202,728
Bank	3	13,254	6,633	1,807	21,694	19,585	6,205	1,753	27,543	28,598	26,787	26,548
Total Wholesale	4	526,562	125,912	27,126	679,600	488,858	127,135	26,129	642,122	626,883	603,540	588,154
Residential mortgages excluding home equity line of credits (HELOCs)	5	127,768	224	31	128,023	123,851	132	37	124,020	120,932	119,349	118,851
HELOCs	6	42,644	19,002	-	61,646	41,820	19,625	-	61,445	59,671	58,475	56,623
Other retail	7	52,358	4,182	-	56,540	50,571	4,094	-	54,665	52,459	50,359	49,006
Qualifying revolving retail	8	9,313	34,038	-	43,351	10,591	33,499	-	44,090	42,555	42,886	39,847
Retail SMEs	9	13,590	5,252	45	18,887	12,935	5,059	43	18,037	15,781	15,782	15,759
Total Retail	10	245,673	62,698	76	308,447	239,768	62,409	80	302,257	291,398	286,851	280,086
Other assets	11	11,550	-	-	11,550	11,197	-	-	11,197	9,722	10,406	10,978
Equity	12	2,414	325	-	2,739	2,257	304	-	2,561	2,366	2,212	1,828
Total Bank	13	786,199	188,935	27,202	1,002,336	742,080	189,848	26,209	958,137	930,369	903,009	881,046

CREDIT RISK BY RESIDUAL CONTRACT MATURITY BREAKDOWN (1)

(\$ millions)	LINE #	Q4 2022				Q3 2022				Q2 2022	Q1 2022	Q4 2021
		Drawn	Commitments (undrawn) (2)	Other off-balance sheet items (3)	Total	Drawn	Commitments (undrawn) (2)	Other off-balance sheet items (3)	Total	Total	Total	Total
Up to 1 year	1	291,824	105,917	20,654	418,395	262,489	105,521	20,071	388,081	378,399	351,449	380,906
1 to 5 years	2	390,712	75,854	6,491	473,057	377,809	77,492	6,063	461,364	444,629	438,112	400,351
Greater than 5 years	3	103,663	7,164	57	110,884	101,782	6,835	75	108,692	107,341	113,448	99,789
Total Bank	4	786,199	188,935	27,202	1,002,336	742,080	189,848	26,209	958,137	930,369	903,009	881,046

CREDIT RISK EXPOSURE BY INDUSTRY (1)

(\$ millions)	LINE #	Q4 2022				Q3 2022				Q2 2022	Q1 2022	Q4 2021
		Drawn	Commitments (undrawn) (2)	Other off-balance sheet items (3)	Total	Drawn	Commitments (undrawn) (2)	Other off-balance sheet items (3)	Total	Total	Total	Total
Agriculture	1	13,469	2,034	76	15,579	12,994	2,302	72	15,368	15,102	14,935	14,752
Communications	2	882	1,760	370	3,012	940	1,903	308	3,151	3,221	3,801	4,115
Construction	3	5,329	3,932	1,170	10,431	4,947	3,510	1,146	9,603	9,303	9,049	8,876
Financial	4	172,721	22,535	7,887	203,143	159,884	29,681	7,473	197,038	190,825	185,069	220,904
Forest products	5	1,031	896	251	2,178	904	840	204	1,948	1,703	1,598	1,487
Government	6	99,498	1,863	434	101,795	95,880	1,512	434	97,826	96,950	99,019	69,213
Individual	7	245,673	62,698	76	308,447	239,768	62,408	80	302,256	291,399	286,851	280,087
Manufacturing	8	36,307	20,237	2,067	58,611	33,987	19,533	1,900	55,420	52,170	50,498	45,348
Mining	9	3,460	4,795	1,393	9,648	3,185	4,463	1,436	9,084	9,187	8,968	7,559
Oil and Gas	10	4,084	4,967	1,341	10,392	3,836	5,129	1,262	10,227	11,536	11,957	12,922
Other	11	28,344	815	278	29,437	22,222	796	329	23,347	27,054	18,534	18,471
Real estate	12	56,027	13,325	1,295	70,647	53,347	12,010	1,310	66,667	63,263	62,319	57,019
Retail trade	13	24,046	5,235	548	29,829	21,142	5,197	578	26,917	26,408	24,192	21,515
Service industries	14	54,756	18,603	3,169	76,528	52,088	18,226	2,997	73,311	68,890	67,545	63,519
Transportation	15	10,354	3,641	1,710	15,705	9,505	3,281	1,490	14,276	13,732	12,912	13,711
Utilities	16	9,966	13,740	4,364	28,070	8,921	12,249	4,084	25,254	24,332	22,263	21,250
Wholesale trade	17	20,252	7,859	773	28,884	18,530	6,808	1,106	26,444	25,294	23,499	20,298
Total Bank	18	786,199	188,935	27,202	1,002,336	742,080	189,848	26,209	958,137	930,369	903,009	881,046

(1) Credit Risk excludes Counterparty Credit Risk, Securitization, Equity Investment in Funds, Settlement Risk and amounts below the thresholds for deduction subject to 250% risk weight.

(2) The EAD on the difference between the authorized and drawn amounts (e.g. the unused portion of a line of credit) after the application of the credit conversion factor.

(3) Includes items such as standby letters of credit and documentary credits after the application of the credit conversion factor.

CCR1 - ANALYSIS OF COUNTERPARTY CREDIT RISK (CCR) EXPOSURE BY APPROACH (1)

(\$ millions except as noted)

CCR1 - ANALYSIS OF COUNTERPARTY CREDIT RISK (CCR) EXPOSURE BY APPROACH (1)		Q4 2022					
		Replacement cost	Potential future exposure	Effective Expected Positive Exposure (EEPE)	Alpha used for computing regulatory EAD	EAD post-CRM	RWA
		(\$ millions except as noted)		a	b	c	d
1	SA-CCR (for derivatives)	11,274	15,664		1.4	37,713	7,618
2	Internal Model Method (for derivatives and SFTs)			-	-	-	-
3	Simple Approach for credit risk mitigation (for SFTs)					-	-
4	Comprehensive Approach for credit risk mitigation (for SFTs)					27,484	2,869
5	VaR for SFTs					-	-
6	Total						10,487

CCR1 - ANALYSIS OF COUNTERPARTY CREDIT RISK (CCR) EXPOSURE BY APPROACH (1)

(\$ millions except as noted)

CCR1 - ANALYSIS OF COUNTERPARTY CREDIT RISK (CCR) EXPOSURE BY APPROACH (1)		Q3 2022					
		Replacement cost	Potential future exposure	Effective Expected Positive Exposure (EEPE)	Alpha used for computing regulatory EAD	EAD post-CRM	RWA
		a	b	c	d	e	f
(\$ millions except as noted)							
1	SA-CCR (for derivatives)	11,088	16,374		1.4	38,275	8,428
2	Internal Model Method (for derivatives and SFTs)			-	-	-	-
3	Simple Approach for credit risk mitigation (for SFTs)					-	-
4	Comprehensive Approach for credit risk mitigation (for SFTs)					31,578	3,844
5	VaR for SFTs					-	-
6	Total						12,272

CCR1 - ANALYSIS OF COUNTERPARTY CREDIT RISK (CCR) EXPOSURE BY APPROACH (1)

(\$ millions except as noted)

CCR1 - ANALYSIS OF COUNTERPARTY CREDIT RISK (CCR) EXPOSURE BY APPROACH (1)		Q2 2022					
		Replacement cost	Potential future exposure	Effective Expected Positive Exposure (EEPE)	Alpha used for computing regulatory EAD	EAD post-CRM	RWA
		a	b	c	d	e	f
(\$ millions except as noted)							
1	SA-CCR (for derivatives)	13,591	17,000		1.4	42,827	9,584
2	Internal Model Method (for derivatives and SFTs)			-	-	-	-
3	Simple Approach for credit risk mitigation (for SFTs)					-	-
4	Comprehensive Approach for credit risk mitigation (for SFTs)					33,036	4,179
5	VaR for SFTs					-	-
6	Total						13,763

CCR1 - ANALYSIS OF COUNTERPARTY CREDIT RISK (CCR) EXPOSURE BY APPROACH (1)

(\$ millions except as noted)

CCR1 - ANALYSIS OF COUNTERPARTY CREDIT RISK (CCR) EXPOSURE BY APPROACH (1)		Q1 2022					
		Replacement cost	Potential future exposure	Effective Expected Positive Exposure (EEPE)	Alpha used for computing regulatory EAD	EAD post-CRM	RWA
		a	b	c	d	e	f
(\$ millions except as noted)							
1	SA-CCR (for derivatives)	9,178	17,864		1.4	37,722	9,521
2	Internal Model Method (for derivatives and SFTs)			-	-	-	-
3	Simple Approach for credit risk mitigation (for SFTs)					-	-
4	Comprehensive Approach for credit risk mitigation (for SFTs)					32,527	3,989
5	VaR for SFTs					-	-
6	Total						13,510

CCR1 - ANALYSIS OF COUNTERPARTY CREDIT RISK (CCR) EXPOSURE BY APPROACH (1)

(\$ millions except as noted)

CCR1 - ANALYSIS OF COUNTERPARTY CREDIT RISK (CCR) EXPOSURE BY APPROACH (1)		Q4 2021					
		Replacement cost	Potential future exposure	Effective Expected Positive Exposure (EEPE)	Alpha used for computing regulatory EAD	EAD post-CRM	RWA
		(\$ millions except as noted)		a	b	c	d
1	SA-CCR (for derivatives)	9,617	17,595		1.4	37,972	9,703
2	Internal Model Method (for derivatives and SFTs)			-	-	-	-
3	Simple Approach for credit risk mitigation (for SFTs)					-	-
4	Comprehensive Approach for credit risk mitigation (for SFTs)					32,194	4,247
5	VaR for SFTs					-	-
6	Total						13,950

(1) Excludes credit valuation adjustment charge and exposures cleared through a central counterparty.

**CCR2 - CREDIT VALUATION ADJUSTMENT (CVA)
CAPITAL CHARGE**

(\$ millions)

		Q4 2022		Q3 2022	
		EAD post-CRM	RWA	EAD post-CRM	RWA
		a	b	c	d
	Total portfolios subject to the Advanced CVA capital charge	-	-	-	-
1	(i) VaR component (including the 3×multiplier)		-		-
2	(ii) Stressed VaR component (including the 3×multiplier)		-		-
3	All portfolios subject to the Standardized CVA capital charge	26,395	3,633	26,913	4,077
4	Total subject to the CVA capital charge	26,395	3,633	26,913	4,077

**CCR2 - CREDIT VALUATION ADJUSTMENT (CVA)
CAPITAL CHARGE**

(\$ millions)

		Q2 2022		Q1 2022	
		EAD post-CRM	RWA	EAD post-CRM	RWA
		a	b	c	d
	Total portfolios subject to the Advanced CVA capital charge	-	-	-	-
1	(i) VaR component (including the 3×multiplier)		-		-
2	(ii) Stressed VaR component (including the 3×multiplier)		-		-
3	All portfolios subject to the Standardized CVA capital charge	29,979	4,804	26,501	4,378
4	Total subject to the CVA capital charge	29,979	4,804	26,501	4,378

**CCR2 - CREDIT VALUATION ADJUSTMENT (CVA)
CAPITAL CHARGE**

(\$ millions)

		Q4 2021	
		EAD post-CRM	RWA
		a	b
	Total portfolios subject to the Advanced CVA capital charge	-	-
1	(i) VaR component (including the 3×multiplier)		-
2	(ii) Stressed VaR component (including the 3×multiplier)		-
3	All portfolios subject to the Standardized CVA capital charge	26,668	3,317
4	Total subject to the CVA capital charge	26,668	3,317

**CCR3 - STANDARDIZED APPROACH – CCR EXPOSURES BY REGULATORY
PORTFOLIO AND RISK WEIGHTS (1)**

(\$ millions)

		Q4 2022								
		Risk Weight								Total credit exposure
	LINE	0%	10%	20%	50%	75%	100%	150%	Others	
Regulatory portfolio	#	a	b	c	d	e	f	g	h	i
Sovereigns	1	-	-	-	-	-	-	-	-	-
Non-central government public sector entities (PSEs)	2	-	-	-	-	-	-	-	-	-
Multilateral development banks (MDBs)	3	-	-	-	-	-	-	-	-	-
Banks	4	-	-	52	-	-	-	-	-	52
Securities firms	5	-	-	287	-	-	-	-	-	287
Corporates	6	-	-	-	179	-	215	-	-	394
Regulatory retail portfolios	7	-	-	-	-	-	-	-	-	-
Secured by residential property	8	-	-	-	-	-	-	-	-	-
Secured by commercial real estate	9	-	-	-	-	-	-	-	-	-
Equity	10	-	-	-	-	-	-	-	-	-
Defaulted exposures	11	-	-	-	-	-	-	-	-	-
Higher-risk categories (2)	12	-	-	-	-	-	-	-	-	-
Other assets	13	-	-	-	-	-	-	-	-	-
Total	14	-	-	339	179	-	215	-	-	733

**CCR3 - STANDARDIZED APPROACH – CCR EXPOSURES BY REGULATORY
PORTFOLIO AND RISK WEIGHTS (1)**

(\$ millions)

		Q3 2022								
		Risk Weight								Total credit exposure
	LINE	0%	10%	20%	50%	75%	100%	150%	Others	
Regulatory portfolio	#	a	b	c	d	e	f	g	h	i
Sovereigns	1	-	-	-	-	-	-	-	-	-
Non-central government public sector entities (PSEs)	2	-	-	2	-	-	-	-	-	2
Multilateral development banks (MDBs)	3	-	-	-	-	-	-	-	-	-
Banks	4	-	-	76	-	-	5	-	-	81
Securities firms	5	-	-	377	-	-	-	-	-	377
Corporates	6	-	-	-	78	-	212	-	-	290
Regulatory retail portfolios	7	-	-	-	-	-	-	-	-	-
Secured by residential property	8	-	-	-	-	-	-	-	-	-
Secured by commercial real estate	9	-	-	-	-	-	-	-	-	-
Equity	10	-	-	-	-	-	-	-	-	-
Defaulted exposures	11	-	-	-	-	-	-	-	-	-
Higher-risk categories (2)	12	-	-	-	-	-	-	-	-	-
Other assets	13	-	-	-	-	-	-	-	-	-
Total	14	-	-	455	78	-	217	-	-	750

(1) Excludes credit valuation adjustment charge and exposures cleared through a central counterparty.

(2) Non-defaulted exposures with risk weights equal to 150% (e.g. rated BB- or lower).

CCR3 - STANDARDIZED APPROACH – CCR EXPOSURES BY REGULATORY

PORTFOLIO AND RISK WEIGHTS (1)

(\$ millions)	LINE	Risk Weight								Total credit exposure
		0%	10%	20%	50%	75%	100%	150%	Others	
		a	b	c	d	e	f	g	h	
Regulatory portfolio	#									
Sovereigns	1	-	-	-	-	-	-	-	-	-
Non-central government public sector entities (PSEs)	2	-	-	-	-	-	-	-	-	-
Multilateral development banks (MDBs)	3	-	-	-	-	-	-	-	-	-
Banks	4	-	-	53	-	-	-	-	-	53
Securities firms	5	-	-	345	-	-	-	-	-	345
Corporates	6	-	-	-	2	-	147	-	-	149
Regulatory retail portfolios	7	-	-	-	-	-	-	-	-	-
Secured by residential property	8	-	-	-	-	-	-	-	-	-
Secured by commercial real estate	9	-	-	-	-	-	-	-	-	-
Equity	10	-	-	-	-	-	-	-	-	-
Defaulted exposures	11	-	-	-	-	-	-	-	-	-
Higher-risk categories (2)	12	-	-	-	-	-	-	-	-	-
Other assets	13	-	-	-	-	-	-	-	-	-
Total	14	-	-	398	2	-	147	-	-	547

CCR3 - STANDARDIZED APPROACH – CCR EXPOSURES BY REGULATORY

PORTFOLIO AND RISK WEIGHTS (1)

(\$ millions)	LINE	Risk Weight								Total credit exposure
		0%	10%	20%	50%	75%	100%	150%	Others	
		a	b	c	d	e	f	g	h	
Regulatory portfolio	#									
Sovereigns	1	-	-	-	-	-	-	-	-	-
Non-central government public sector entities (PSEs)	2	-	-	1	-	-	-	-	-	1
Multilateral development banks (MDBs)	3	-	-	-	-	-	-	-	-	-
Banks	4	-	-	57	-	-	-	-	-	57
Securities firms	5	-	-	308	-	-	-	-	-	308
Corporates	6	-	-	-	1	-	125	-	-	126
Regulatory retail portfolios	7	-	-	-	-	-	-	-	-	-
Secured by residential property	8	-	-	-	-	-	-	-	-	-
Secured by commercial real estate	9	-	-	-	-	-	-	-	-	-
Equity	10	-	-	-	-	-	-	-	-	-
Defaulted exposures	11	-	-	-	-	-	-	-	-	-
Higher-risk categories (2)	12	-	-	-	-	-	-	-	-	-
Other assets	13	-	-	-	-	-	-	-	-	-
Total	14	-	-	366	1	-	125	-	-	492

CCR3 - STANDARDIZED APPROACH – CCR EXPOSURES BY REGULATORY

PORTFOLIO AND RISK WEIGHTS (1)

(\$ millions)	LINE #	Risk Weight								Total credit exposure
		0%	10%	20%	50%	75%	100%	150%	Others	
		a	b	c	d	e	f	g	h	
Regulatory portfolio										
Sovereigns	1	-	-	-	-	-	-	-	-	-
Non-central government public sector entities (PSEs)	2	-	-	4	-	-	-	-	-	4
Multilateral development banks (MDBs)	3	-	-	-	-	-	-	-	-	-
Banks	4	-	-	559	-	-	-	-	-	559
Securities firms	5	-	-	311	-	-	-	-	-	311
Corporates	6	-	-	-	-	-	327	-	-	327
Regulatory retail portfolios	7	-	-	-	-	-	-	-	-	-
Secured by residential property	8	-	-	-	-	-	-	-	-	-
Secured by commercial real estate	9	-	-	-	-	-	-	-	-	-
Equity	10	-	-	-	-	-	-	-	-	-
Defaulted exposures	11	-	-	-	-	-	-	-	-	-
Higher-risk categories (2)	12	-	-	-	-	-	-	3	-	3
Other assets	13	-	-	-	-	-	-	-	-	-
Total	14	-	-	874	-	-	327	3	-	1 204

(1) Excludes credit valuation adjustment charge and exposures cleared through a central counterparty.

(2) Non-defaulted exposures with risk weights equal to 150% (e.g. rated BB- or lower).

CCR4 - IRB - CCR EXPOSURES BY PORTFOLIO AND PD SCALE

(\$ millions except as noted)

CCR4 - IRB - CCR EXPOSURES BY PORTFOLIO AND PD SCALE (\$ millions except as noted)						Q4 2022						
						EAD post- CRM	Average PD (1)	Number of obligors (2)	Average LGD (3)	Average maturity (years) (4)	RWA	RWA density
Risk Profile	BMO Rating	PD scale (%)	Moody's Investors Service implied equivalent	Standard & Poor's implied equivalent	LINE #							
Corporate												
Investment grade	I-1, I-2, I-3, I-4, I-5	0.00 to <0.15	Aaa to Baa1	AAA to BBB+	1	17,737	0.06 %	3,793	29.03 %	1.04	2,006	11.31 %
Investment grade	I-5, I-6	0.15 to <0.25	Baa1 to Baa2	BBB+ to BBB	2	2,894	0.19 %	574	35.46 %	1.55	865	29.90 %
Investment grade	I-6, I-7	0.25 to <0.50	Baa2 to Baa3	BBB to BBB-	3	5,356	0.32 %	534	25.85 %	1.24	1,452	27.11 %
Investment grade to Non-investment grade	I-7, S-1	0.50 to <0.75	Baa3 to Ba1	BBB- to BB+	4	2,288	0.54 %	464	39.83 %	0.78	1,290	56.39 %
Non-investment grade	S-1, S-2, S-3	0.75 to <2.50	Ba1 to Ba3	BB+ to BB-	5	856	1.23 %	591	40.04 %	0.93	694	81.03 %
Non-investment grade to Watchlist	S-3, S-4, P-1, P-2	2.50 to <10.00	Ba3 to Caa1	BB- to B-	6	233	2.90 %	248	43.49 %	1.63	283	121.13 %
Watchlist	P-2, P-3	10.00 to <100.00	Caa1 to Ca	B- to CC	7	7	15.43 %	13	44.96 %	3.23	17	237.04 %
Default	Default	100.00 (Default)	C	C to D	8	-	100.00 %	2	44.00 %	1.00	-	583.00 %
Sub-total					9	29,371	0.22 %	6,219	30.36 %		6,607	22.49 %
Sovereign												
Investment grade	I-1, I-2, I-3, I-4, I-5	0.00 to <0.15	Aaa to Baa1	AAA to BBB+	10	17,770	0.03 %	184	7.69 %	1.62	411	2.31 %
Investment grade	I-5, I-6	0.15 to <0.25	Baa1 to Baa2	BBB+ to BBB	11	55	0.19 %	6	39.72 %	1.05	15	27.37 %
Investment grade	I-6, I-7	0.25 to <0.50	Baa2 to Baa3	BBB to BBB-	12	53	0.32 %	8	33.47 %	0.56	15	28.92 %
Investment grade to Non-investment grade	I-7, S-1	0.50 to <0.75	Baa3 to Ba1	BBB- to BB+	13	-	0.54 %	1	15.00 %	1.00	-	19.21 %
Non-investment grade	S-1, S-2, S-3	0.75 to <2.50	Ba1 to Ba3	BB+ to BB-	14	3	1.41 %	8	46.58 %	0.38	2	82.58 %
Non-investment grade to Watchlist	S-3, S-4, P-1, P-2	2.50 to <10.00	Ba3 to Caa1	BB- to B-	15	1	9.70 %	1	40.00 %	1.00	1	163.52 %
Watchlist	P-2, P-3	10.00 to <100.00	Caa1 to Ca	B- to CC	16	-	-	-	-	-	-	-
Default	Default	100.00 (Default)	C	C to D	17	-	-	-	-	-	-	-
Sub-total					18	17,882	0.03 %	208	7.87 %		444	2.49 %
Bank												
Investment grade	I-1, I-2, I-3, I-4, I-5	0.00 to <0.15	Aaa to Baa1	AAA to BBB+	19	14,886	0.06 %	314	34.67 %	1.28	2,248	15.10 %
Investment grade	I-5, I-6	0.15 to <0.25	Baa1 to Baa2	BBB+ to BBB	20	1,310	0.19 %	164	39.29 %	0.89	405	30.89 %
Investment grade	I-6, I-7	0.25 to <0.50	Baa2 to Baa3	BBB to BBB-	21	733	0.32 %	52	34.04 %	0.67	226	30.77 %
Investment grade to Non-investment grade	I-7, S-1	0.50 to <0.75	Baa3 to Ba1	BBB- to BB+	22	184	0.54 %	19	38.99 %	0.36	96	52.04 %
Non-investment grade	S-1, S-2, S-3	0.75 to <2.50	Ba1 to Ba3	BB+ to BB-	23	94	1.15 %	10	48.63 %	0.66	86	91.79 %
Non-investment grade to Watchlist	S-3, S-4, P-1, P-2	2.50 to <10.00	Ba3 to Caa1	BB- to B-	24	4	2.74 %	3	32.30 %	1.00	3	81.06 %
Watchlist	P-2, P-3	10.00 to <100.00	Caa1 to Ca	B- to CC	25	-	-	-	-	-	-	-
Default	Default	100.00 (Default)	C	C to D	26	-	-	-	-	-	-	-
Sub-total					27	17,211	0.09 %	562	35.12 %		3,064	17.80 %
Total (all wholesale portfolios)					28	64,464	0.13 %	6,989	25.39 %		10,115	15.69 %

(1) Calculated as obligor PD weighted by EAD.

(2) Obligor count for Wholesale portfolios is at the borrower level.

(3) Calculated as the obligor LGD weighted by EAD.

(4) Calculated as the obligor effective maturity in years weighted by EAD.

CCR4 - IRB - CCR EXPOSURES BY PORTFOLIO AND PD SCALE

(\$ millions except as noted)

CCR4 - IRB - CCR EXPOSURES BY PORTFOLIO AND PD SCALE (\$ millions except as noted)						Q3 2022						
						EAD post- CRM	Average PD (1)	Number of obligors (2)	Average LGD (3)	Average maturity (years) (4)	RWA	RWA density
Risk Profile	BMO Rating	PD scale (%)	Moody's Investors Service implied equivalent	Standard & Poor's implied equivalent	LINE #	a	b	c	d	e	f	g
Corporate												
Investment grade	I-1, I-2, I-3, I-4, I-5	0.00 to <0.15	Aaa to Baa1	AAA to BBB+	1	15,435	0.06 %	3,681	29.78 %	1.01	1,789	11.59 %
Investment grade	I-5, I-6	0.15 to <0.25	Baa1 to Baa2	BBB+ to BBB	2	3,577	0.19 %	635	33.96 %	1.49	1,018	28.45 %
Investment grade	I-6, I-7	0.25 to <0.50	Baa2 to Baa3	BBB to BBB-	3	8,305	0.32 %	522	22.44 %	1.12	1,909	22.98 %
Investment grade to Non-investment grade	I-7, S-1	0.50 to <0.75	Baa3 to Ba1	BBB- to BB+	4	2,905	0.54 %	461	36.59 %	0.92	1,525	52.50 %
Non-investment grade	S-1, S-2, S-3	0.75 to <2.50	Ba1 to Ba3	BB+ to BB-	5	1,689	1.24 %	602	40.02 %	1.05	1,417	83.87 %
Non-investment grade to Watchlist	S-3, S-4, P-1, P-2	2.50 to <10.00	Ba3 to Caa1	BB- to B-	6	361	2.97 %	280	43.94 %	1.83	446	123.56 %
Watchlist	P-2, P-3	10.00 to <100.00	Caa1 to Ca	B- to CC	7	12	15.45 %	11	40.32 %	1.32	24	193.85 %
Default	Default	100.00 (Default)	C	C to D	8	1	100.00 %	4	42.07 %	1.21	4	557.40 %
Sub-total					9	32,285	0.29 %	6,196	29.67 %		8,132	25.19 %
Sovereign												
Investment grade	I-1, I-2, I-3, I-4, I-5	0.00 to <0.15	Aaa to Baa1	AAA to BBB+	10	17,002	0.02 %	175	5.73 %	1.46	308	1.81 %
Investment grade	I-5, I-6	0.15 to <0.25	Baa1 to Baa2	BBB+ to BBB	11	563	0.19 %	17	39.43 %	0.20	114	20.17 %
Investment grade	I-6, I-7	0.25 to <0.50	Baa2 to Baa3	BBB to BBB-	12	23	0.32 %	7	32.19 %	0.57	6	27.66 %
Investment grade to Non-investment grade	I-7, S-1	0.50 to <0.75	Baa3 to Ba1	BBB- to BB+	13	1	0.54 %	2	30.53 %	0.40	-	32.49 %
Non-investment grade	S-1, S-2, S-3	0.75 to <2.50	Ba1 to Ba3	BB+ to BB-	14	7	1.02 %	9	47.06 %	0.51	5	73.82 %
Non-investment grade to Watchlist	S-3, S-4, P-1, P-2	2.50 to <10.00	Ba3 to Caa1	BB- to B-	15	1	9.70 %	7	40.00 %	1.00	1	163.52 %
Watchlist	P-2, P-3	10.00 to <100.00	Caa1 to Ca	B- to CC	16	-	-	-	-	-	-	-
Default	Default	100.00 (Default)	C	C to D	17	-	-	-	-	-	-	-
Sub-total					18	17,597	0.03 %	217	6.86 %		434	2.47 %
Bank												
Investment grade	I-1, I-2, I-3, I-4, I-5	0.00 to <0.15	Aaa to Baa1	AAA to BBB+	19	16,977	0.06 %	332	34.58 %	1.21	2,559	15.07 %
Investment grade	I-5, I-6	0.15 to <0.25	Baa1 to Baa2	BBB+ to BBB	20	1,335	0.19 %	182	39.71 %	0.86	417	31.21 %
Investment grade	I-6, I-7	0.25 to <0.50	Baa2 to Baa3	BBB to BBB-	21	750	0.32 %	51	35.08 %	0.48	244	32.58 %
Investment grade to Non-investment grade	I-7, S-1	0.50 to <0.75	Baa3 to Ba1	BBB- to BB+	22	81	0.54 %	20	38.32 %	0.50	43	53.05 %
Non-investment grade	S-1, S-2, S-3	0.75 to <2.50	Ba1 to Ba3	BB+ to BB-	23	78	1.55 %	10	54.21 %	0.34	97	123.74 %
Non-investment grade to Watchlist	S-3, S-4, P-1, P-2	2.50 to <10.00	Ba3 to Caa1	BB- to B-	24	-	2.74 %	3	35.00 %	1.00	-	87.85 %
Watchlist	P-2, P-3	10.00 to <100.00	Caa1 to Ca	B- to CC	25	-	-	-	-	-	-	-
Default	Default	100.00 (Default)	C	C to D	26	-	-	-	-	-	-	-
Sub-total					27	19,221	0.09 %	598	35.05 %		3,360	17.48 %
Total (all wholesale portfolios)					28	69,103	0.17 %	7,011	25.36 %		11,926	17.26 %

(1) Calculated as obligor PD weighted by EAD.

(2) Obligor count for Wholesale portfolios is at the borrower level.

(3) Calculated as the obligor LGD weighted by EAD.

(4) Calculated as the obligor effective maturity in years weighted by EAD.

CCR4 - IRB - CCR EXPOSURES BY PORTFOLIO AND PD SCALE

(\$ millions except as noted)

CCR4 - IRB - CCR EXPOSURES BY PORTFOLIO AND PD SCALE (\$ millions except as noted)						Q2 2022						
						EAD post- CRM	Average PD (1)	Number of obligors (2)	Average LGD (3)	Average maturity (years) (4)	RWA	RWA density
Risk Profile	BMO Rating	PD scale (%)	Moody's Investors Service implied equivalent	Standard & Poor's implied equivalent	LINE #	a	b	c	e	e	f	g
Corporate												
Investment grade	I-1, I-2, I-3, I-4, I-5	0.00 to <0.15	Aaa to Baa1	AAA to BBB+	1	17,546	0.06 %	3,701	29.72 %	0.89	1,814	10.34 %
Investment grade	I-5, I-6	0.15 to <0.25	Baa1 to Baa2	BBB+ to BBB	2	2,611	0.19 %	514	38.29 %	1.50	826	31.61 %
Investment grade	I-6, I-7	0.25 to <0.50	Baa2 to Baa3	BBB to BBB-	3	8,135	0.32 %	615	25.09 %	1.13	2,082	25.60 %
Investment grade to Non-investment grade	I-7, S-1	0.50 to <0.75	Baa3 to Ba1	BBB- to BB+	4	5,066	0.54 %	604	32.99 %	1.11	2,419	47.75 %
Non-investment grade	S-1, S-2, S-3	0.75 to <2.50	Ba1 to Ba3	BB+ to BB-	5	2,161	1.17 %	464	34.62 %	1.03	1,508	69.77 %
Non-investment grade to Watchlist	S-3, S-4, P-1, P-2	2.50 to <10.00	Ba3 to Caa1	BB- to B-	6	1,035	2.97 %	271	25.34 %	1.33	724	69.99 %
Watchlist	P-2, P-3	10.00 to <100.00	Caa1 to Ca	B- to CC	7	14	15.41 %	13	41.10 %	1.54	29	201.67 %
Default	Default	100.00 (Default)	C	C to D	8	2	100.00 %	6	36.82 %	2.28	9	487.82 %
Sub-total					9	36,570	0.35 %	6,188	29.93 %		9,411	25.73 %
Sovereign												
Investment grade	I-1, I-2, I-3, I-4, I-5	0.00 to <0.15	Aaa to Baa1	AAA to BBB+	10	17,717	0.03 %	193	10.56 %	1.62	404	2.28 %
Investment grade	I-5, I-6	0.15 to <0.25	Baa1 to Baa2	BBB+ to BBB	11	1,027	0.19 %	16	39.99 %	0.12	203	19.75 %
Investment grade	I-6, I-7	0.25 to <0.50	Baa2 to Baa3	BBB to BBB-	12	6	0.32 %	7	31.70 %	0.11	1	23.54 %
Investment grade to Non-investment grade	I-7, S-1	0.50 to <0.75	Baa3 to Ba1	BBB- to BB+	13	-	0.54 %	2	15.00 %	1.00	-	19.21 %
Non-investment grade	S-1, S-2, S-3	0.75 to <2.50	Ba1 to Ba3	BB+ to BB-	14	3	1.11 %	8	51.86 %	0.13	2	78.64 %
Non-investment grade to Watchlist	S-3, S-4, P-1, P-2	2.50 to <10.00	Ba3 to Caa1	BB- to B-	15	1	9.70 %	7	40.00 %	1.00	1	163.52 %
Watchlist	P-2, P-3	10.00 to <100.00	Caa1 to Ca	B- to CC	16	-	-	-	-	-	-	-
Default	Default	100.00 (Default)	C	C to D	17	-	-	-	-	-	-	-
Sub-total					18	18,754	0.04 %	233	12.19 %		611	3.26 %
Bank												
Investment grade	I-1, I-2, I-3, I-4, I-5	0.00 to <0.15	Aaa to Baa1	AAA to BBB+	19	17,273	0.07 %	334	34.81 %	1.31	2,757	15.96 %
Investment grade	I-5, I-6	0.15 to <0.25	Baa1 to Baa2	BBB+ to BBB	20	1,916	0.19 %	117	34.68 %	0.52	428	22.37 %
Investment grade	I-6, I-7	0.25 to <0.50	Baa2 to Baa3	BBB to BBB-	21	584	0.32 %	103	33.84 %	0.41	160	27.49 %
Investment grade to Non-investment grade	I-7, S-1	0.50 to <0.75	Baa3 to Ba1	BBB- to BB+	22	159	0.56 %	16	42.31 %	1.25	98	61.98 %
Non-investment grade	S-1, S-2, S-3	0.75 to <2.50	Ba1 to Ba3	BB+ to BB-	23	53	1.47 %	13	51.40 %	0.19	59	110.15 %
Non-investment grade to Watchlist	S-3, S-4, P-1, P-2	2.50 to <10.00	Ba3 to Caa1	BB- to B-	24	7	2.74 %	3	55.55 %	0.14	9	125.48 %
Watchlist	P-2, P-3	10.00 to <100.00	Caa1 to Ca	B- to CC	25	-	-	-	-	-	-	-
Default	Default	100.00 (Default)	C	C to D	26	-	-	-	-	-	-	-
Sub-total					27	19,992	0.10 %	586	34.88 %		3,511	17.57 %
Total (all wholesale portfolios)					28	75,316	0.21 %	7,007	26.82 %		13,533	17.97 %

(1) Calculated as obligor PD weighted by EAD.

(2) Obligor count for Wholesale portfolios is at the borrower level.

(3) Calculated as the obligor LGD weighted by EAD.

(4) Calculated as the obligor effective maturity in years weighted by EAD.

CCR4 - IRB - CCR EXPOSURES BY PORTFOLIO AND PD SCALE

(\$ millions except as noted)

CCR4 - IRB - CCR EXPOSURES BY PORTFOLIO AND PD SCALE (\$ millions except as noted)						Q1 2022						
						EAD post- CRM	Average PD (1)	Number of obligors (2)	Average LGD (3)	Average maturity (years) (4)	RWA	RWA density
Risk Profile	BMO Rating	PD scale (%)	Moody's Investors Service implied equivalent	Standard & Poor's implied equivalent	LINE #	a	b	c	d	e	f	g
Corporate												
Investment grade	I-1, I-2, I-3, I-4, I-5	0.00 to <0.15	Aaa to Baa1	AAA to BBB+	1	17,070	0.06 %	3,412	28.97 %	0.87	1,707	10.00 %
Investment grade	I-5, I-6	0.15 to <0.25	Baa1 to Baa2	BBB+ to BBB	2	1,584	0.19 %	490	37.39 %	1.60	491	31.03 %
Investment grade	I-6, I-7	0.25 to <0.50	Baa2 to Baa3	BBB to BBB-	3	3,837	0.32 %	501	35.59 %	1.59	1,585	41.31 %
Investment grade to Non-investment grade	I-7, S-1	0.50 to <0.75	Baa3 to Ba1	BBB- to BB+	4	6,092	0.57 %	712	27.25 %	1.24	2,509	41.19 %
Non-investment grade	S-1, S-2, S-3	0.75 to <2.50	Ba1 to Ba3	BB+ to BB-	5	3,209	1.23 %	458	32.78 %	1.21	2,184	68.04 %
Non-investment grade to Watchlist	S-3, S-4, P-1, P-2	2.50 to <10.00	Ba3 to Caa1	BB- to B-	6	1,048	2.98 %	269	32.37 %	1.62	964	91.94 %
Watchlist	P-2, P-3	10.00 to <100.00	Caa1 to Ca	B- to CC	7	6	14.37 %	15	46.18 %	2.34	12	208.98 %
Default	Default	100.00 (Default)	C	C to D	8	8	100.00 %	7	37.74 %	2.33	38	500.00 %
Sub-total					9	32,854	0.43 %	5,864	30.32 %		9,490	28.89 %
Sovereign												
Investment grade	I-1, I-2, I-3, I-4, I-5	0.00 to <0.15	Aaa to Baa1	AAA to BBB+	10	17,395	0.03 %	195	8.89 %	1.37	436	2.51 %
Investment grade	I-5, I-6	0.15 to <0.25	Baa1 to Baa2	BBB+ to BBB	11	123	0.19 %	6	24.43 %	0.45	19	15.48 %
Investment grade	I-6, I-7	0.25 to <0.50	Baa2 to Baa3	BBB to BBB-	12	11	0.32 %	5	36.60 %	0.09	3	26.51 %
Investment grade to Non-investment grade	I-7, S-1	0.50 to <0.75	Baa3 to Ba1	BBB- to BB+	13	17	0.55 %	5	38.55 %	0.54	7	42.98 %
Non-investment grade	S-1, S-2, S-3	0.75 to <2.50	Ba1 to Ba3	BB+ to BB-	14	3	1.49 %	5	55.00 %	0.02	3	93.62 %
Non-investment grade to Watchlist	S-3, S-4, P-1, P-2	2.50 to <10.00	Ba3 to Caa1	BB- to B-	15	-	9.70 %	1	40.00 %	1.00	-	163.52 %
Watchlist	P-2, P-3	10.00 to <100.00	Caa1 to Ca	B- to CC	16	-	-	-	-	-	-	-
Default	Default	100.00 (Default)	C	C to D	17	-	-	-	-	-	-	-
Sub-total					18	17,549	0.03 %	217	9.05 %		468	2.67 %
Bank												
Investment grade	I-1, I-2, I-3, I-4, I-5	0.00 to <0.15	Aaa to Baa1	AAA to BBB+	19	16,268	0.06 %	347	34.82 %	1.31	2,421	14.88 %
Investment grade	I-5, I-6	0.15 to <0.25	Baa1 to Baa2	BBB+ to BBB	20	1,808	0.19 %	117	33.26 %	0.72	426	23.57 %
Investment grade	I-6, I-7	0.25 to <0.50	Baa2 to Baa3	BBB to BBB-	21	1,024	0.32 %	57	35.30 %	0.64	313	30.54 %
Investment grade to Non-investment grade	I-7, S-1	0.50 to <0.75	Baa3 to Ba1	BBB- to BB+	22	145	0.54 %	73	35.57 %	0.54	70	48.41 %
Non-investment grade	S-1, S-2, S-3	0.75 to <2.50	Ba1 to Ba3	BB+ to BB-	23	43	1.59 %	13	50.49 %	0.44	47	109.93 %
Non-investment grade to Watchlist	S-3, S-4, P-1, P-2	2.50 to <10.00	Ba3 to Caa1	BB- to B-	24	66	2.74 %	10	45.19 %	1.00	75	113.42 %
Watchlist	P-2, P-3	10.00 to <100.00	Caa1 to Ca	B- to CC	25	-	-	-	-	-	-	-
Default	Default	100.00 (Default)	C	C to D	26	-	-	-	-	-	-	-
Sub-total					27	19,354	0.10 %	617	34.78 %		3,352	17.32 %
Total (all wholesale portfolios)					28	69,757	0.24 %	6,698	26.20 %		13,310	19.08 %

(1) Calculated as obligor PD weighted by EAD.

(2) Obligor count for Wholesale portfolios is at the borrower level.

(3) Calculated as the obligor LGD weighted by EAD.

(4) Calculated as the obligor effective maturity in years weighted by EAD.

CCR4 - IRB - CCR EXPOSURES BY PORTFOLIO AND PD SCALE

(\$ millions except as noted)

CCR4 - IRB - CCR EXPOSURES BY PORTFOLIO AND PD SCALE (\$ millions except as noted)						Q4 2021						
						EAD post- CRM	Average PD (1)	Number of obligors (2)	Average LGD (3)	Average maturity (years) (4)	RWA	RWA density
Risk Profile	BMO Rating	PD scale (%)	Moody's Investors Service implied equivalent	Standard & Poor's implied equivalent	LINE #	a	b	c	d	e	f	g
Corporate												
Investment grade	I-1, I-2, I-3, I-4, I-5	0.00 to <0.15	Aaa to Baa1	AAA to BBB+	1	15,784	0.06 %	3,471	29.59 %	0.86	1,685	10.68 %
Investment grade	I-5, I-6	0.15 to <0.25	Baa1 to Baa2	BBB+ to BBB	2	1,866	0.19 %	413	39.55 %	1.66	614	32.91 %
Investment grade	I-6, I-7	0.25 to <0.50	Baa2 to Baa3	BBB to BBB-	3	3,694	0.32 %	506	36.53 %	1.31	1,451	39.27 %
Investment grade to Non-investment grade	I-7, S-1	0.50 to <0.75	Baa3 to Ba1	BBB- to BB+	4	7,160	0.57 %	555	27.78 %	1.34	3,112	43.47 %
Non-investment grade	S-1, S-2, S-3	0.75 to <2.50	Ba1 to Ba3	BB+ to BB-	5	4,233	1.20 %	615	30.48 %	1.29	2,648	62.55 %
Non-investment grade to Watchlist	S-3, S-4, P-1, P-2	2.50 to <10.00	Ba3 to Caa1	BB- to B-	6	1,118	3.40 %	276	24.58 %	1.36	773	69.12 %
Watchlist	P-2, P-3	10.00 to <100.00	Caa1 to Ca	B- to CC	7	18	13.51 %	22	41.31 %	1.88	36	196.01 %
Default	Default	100.00 (Default)	C	C to D	8	10	100.00 %	8	42.07 %	1.69	56	557.41 %
Sub-total					9	33,883	0.49 %	5,866	30.47 %		10,375	30.62 %
Sovereign												
Investment grade	I-1, I-2, I-3, I-4, I-5	0.00 to <0.15	Aaa to Baa1	AAA to BBB+	10	15,960	0.03 %	209	8.67 %	1.34	376	2.36 %
Investment grade	I-5, I-6	0.15 to <0.25	Baa1 to Baa2	BBB+ to BBB	11	108	0.19 %	7	28.70 %	0.53	20	18.38 %
Investment grade	I-6, I-7	0.25 to <0.50	Baa2 to Baa3	BBB to BBB-	12	19	0.32 %	6	27.85 %	0.43	4	21.21 %
Investment grade to Non-investment grade	I-7, S-1	0.50 to <0.75	Baa3 to Ba1	BBB- to BB+	13	6	0.56 %	6	33.70 %	1.11	2	40.70 %
Non-investment grade	S-1, S-2, S-3	0.75 to <2.50	Ba1 to Ba3	BB+ to BB-	14	1	1.32 %	6	54.99 %	0.03	1	88.44 %
Non-investment grade to Watchlist	S-3, S-4, P-1, P-2	2.50 to <10.00	Ba3 to Caa1	BB- to B-	15	-	7.56 %	2	40.00 %	1.00	-	145.72 %
Watchlist	P-2, P-3	10.00 to <100.00	Caa1 to Ca	B- to CC	16	-	-	-	-	-	-	-
Default	Default	100.00 (Default)	C	C to D	17	-	-	-	-	-	-	-
Sub-total					18	16,094	0.03 %	236	8.84 %		403	2.51 %
Bank												
Investment grade	I-1, I-2, I-3, I-4, I-5	0.00 to <0.15	Aaa to Baa1	AAA to BBB+	19	16,018	0.07 %	289	34.61 %	1.13	1,807	11.28 %
Investment grade	I-5, I-6	0.15 to <0.25	Baa1 to Baa2	BBB+ to BBB	20	1,863	0.19 %	84	35.00 %	0.47	415	22.27 %
Investment grade	I-6, I-7	0.25 to <0.50	Baa2 to Baa3	BBB to BBB-	21	878	0.33 %	48	34.44 %	0.55	259	29.54 %
Investment grade to Non-investment grade	I-7, S-1	0.50 to <0.75	Baa3 to Ba1	BBB- to BB+	22	109	0.54 %	74	37.04 %	0.96	52	47.72 %
Non-investment grade	S-1, S-2, S-3	0.75 to <2.50	Ba1 to Ba3	BB+ to BB-	23	2	1.17 %	11	43.25 %	0.84	2	78.43 %
Non-investment grade to Watchlist	S-3, S-4, P-1, P-2	2.50 to <10.00	Ba3 to Caa1	BB- to B-	24	115	2.74 %	6	44.99 %	1.00	129	112.93 %
Watchlist	P-2, P-3	10.00 to <100.00	Caa1 to Ca	B- to CC	25	-	-	-	-	-	-	-
Default	Default	100.00 (Default)	C	C to D	26	-	-	-	-	-	-	-
Sub-total					27	18,985	0.11 %	512	34.72 %		2,664	14.03 %
Total (all wholesale portfolios)					28	68,962	0.28 %	6,614	26.59 %		13,442	19.49 %

(1) Calculated as obligor PD weighted by EAD.

(2) Obligor count for Wholesale portfolios is at the borrower level.

(3) Calculated as the obligor LGD weighted by EAD.

(4) Calculated as the obligor effective maturity in years weighted by EAD.

**CCR5 - COMPOSITION OF COLLATERAL
FOR CCR EXPOSURE (1) (2)**

		Q4 2022					
		Collateral used in derivative transactions				Collateral used in SFTs	
		Fair value of collateral received		Fair value of posted collateral		Fair value of collateral received	Fair value of posted collateral
		Segregated	Unsegregated	Segregated	Unsegregated		
(\$ millions)	LINE #	a	b	c	d	e	f
Cash – domestic currency	1	1	976	-	3,709	37,819	43,112
Cash – other currencies	2	-	3,690	-	6,250	78,532	84,956
Domestic sovereign debt	3	685	4,782	381	1,374	44,069	40,623
Other sovereign debt	4	2,519	392	694	758	51,079	47,057
Government agency debt	5	-	832	-	262	8,141	22,566
Corporate bonds	6	594	-	568	91	23,434	10,646
Equity securities	7	664	471	3,649	5,950	46,083	52,863
Other collateral	8	-	-	-	-	-	-
Total	9	4,463	11,143	5,292	18,394	289,157	301,823

**CCR5 - COMPOSITION OF COLLATERAL
FOR CCR EXPOSURE (1) (2)**

		Q3 2022					
		Collateral used in derivative transactions				Collateral used in SFTs	
		Fair value of collateral received		Fair value of posted collateral		Fair value of collateral received	Fair value of posted collateral
		Segregated	Unsegregated	Segregated	Unsegregated		
(\$ millions)	LINE #	a	b	c	d	e	f
Cash – domestic currency	1	-	824	-	2,442	35,301	44,016
Cash – other currencies	2	-	3,802	-	5,207	77,917	78,642
Domestic sovereign debt	3	738	4,197	813	1,279	45,884	38,118
Other sovereign debt	4	2,252	734	501	356	49,137	47,579
Government agency debt	5	5	847	-	254	7,757	23,972
Corporate bonds	6	484	99	398	73	22,269	9,859
Equity securities	7	1,158	3,141	4,032	8,699	45,866	54,243
Other collateral	8	-	-	-	-	-	-
Total	9	4,637	13,644	5,744	18,310	284,131	296,429

**CCR5 - COMPOSITION OF COLLATERAL
FOR CCR EXPOSURE (1) (2)**

		Q2 2022					
		Collateral used in derivative transactions				Collateral used in SFTs	
		Fair value of collateral received		Fair value of posted collateral		Fair value of collateral received	Fair value of posted collateral
		Segregated	Unsegregated	Segregated	Unsegregated		
(\$ millions)	LINE #	a	b	c	d	e	f
Cash – domestic currency	1	-	3,217	-	2,050	35,782	43,836
Cash – other currencies	2	-	4,347	-	4,941	72,635	76,136
Domestic sovereign debt	3	1,280	1,762	1,400	872	44,329	37,684
Other sovereign debt	4	3,023	558	478	569	46,700	44,918
Government agency debt	5	-	1,858	-	179	5,104	19,974
Corporate bonds	6	289	817	98	35	23,277	11,240
Equity securities	7	978	360	5,333	5,654	47,968	57,420
Other collateral	8	-	-	-	-	-	-
Total	9	5,570	12,919	7,309	14,300	275,795	291,208

**CCR5 - COMPOSITION OF COLLATERAL
FOR CCR EXPOSURE (1) (2)**

		Q1 2022					
		Collateral used in derivative transactions				Collateral used in SFTs	
		Fair value of collateral received		Fair value of posted collateral		Fair value of collateral received	Fair value of posted collateral
		Segregated	Unsegregated	Segregated	Unsegregated		
(\$ millions)	LINE #	a	b	c	d	e	f
Cash – domestic currency	1	-	826	-	2,159	30,742	49,401
Cash – other currencies	2	-	3,534	-	3,402	90,136	80,867
Domestic sovereign debt	3	592	1,603	715	2,549	47,706	34,601
Other sovereign debt	4	1,887	294	884	477	52,994	50,342
Government agency debt	5	145	2,024	-	322	7,633	28,313
Corporate bonds	6	91	133	400	15	25,390	12,450
Equity securities	7	2,143	438	3,955	5,931	49,300	61,510
Other collateral	8	-	-	-	-	-	-
Total	9	4,858	8,852	5,954	14,855	303,901	317,484

**CCR5 - COMPOSITION OF COLLATERAL
FOR CCR EXPOSURE (1) (2)**

		Q4 2021					
		Collateral used in derivative transactions				Collateral used in SFTs	
		Fair value of collateral received		Fair value of posted collateral		Fair value of collateral received	Fair value of posted collateral
		Segregated	Unsegregated	Segregated	Unsegregated		
(\$ millions)	LINE #	a	b	c	d	e	f
Cash – domestic currency	1	-	3,116	-	1,254	29,188	40,880
Cash – other currencies	2	-	3,754	-	2,503	82,529	76,825
Domestic sovereign debt	3	41	903	595	2,500	40,846	32,663
Other sovereign debt	4	1,501	372	740	398	50,833	56,403
Government agency debt	5	512	2,095	-	478	7,541	25,074
Corporate bonds	6	208	-	279	7	24,234	12,045
Equity securities	7	1,249	400	2,711	4,997	48,931	55,294
Other collateral	8	-	-	-	-	22	5
Total	9	3,511	10,640	4,325	12,137	284,124	299,189

(1) Segregated refers to collateral which is held in a bankruptcy-remote manner whereas unsegregated refers to collateral that is not held in a bankruptcy-remote manner.

(2) Debt issued by Multilaterals and Supranationals is included under other sovereign debt while debt issued by Fannie Mae and Freddie Mac is included under government agency debt.

CCR6 - CREDIT DERIVATIVES EXPOSURES

CCR6 - CREDIT DERIVATIVES EXPOSURES	LINE	Q4 2022		Q3 2022	
		Protection bought	Protection sold	Protection bought (1)	Protection sold (1)
		a	b	c	d
(\$ millions)	#				
Notionals					
Single-name credit default swaps	1	684	195	609	140
Index credit default swaps	2	16,087	10,904	14,331	8,630
Total return swaps	3	3,963	9	3,838	9
Credit options	4	-	-	3,425	-
Other credit derivatives	5	-	-	-	-
Total notionals	6	20,734	11,108	22,203	8,779
Fair values					
Positive fair value (asset)	7	214	34	287	1
Negative fair value (liability)	8	33	70	78	34

CCR6 - CREDIT DERIVATIVES EXPOSURES

CCR6 - CREDIT DERIVATIVES EXPOSURES	LINE	Q2 2022		Q1 2022	
		Protection bought	Protection sold	Protection bought	Protection sold
		a	b	c	d
(\$ millions)	#				
Notionals					
Single-name credit default swaps	1	654	81	646	93
Index credit default swaps	2	15,118	9,719	11,507	4,968
Total return swaps	3	3,957	9	3,079	9
Credit options	4	1,861	-	3,085	-
Other credit derivatives	5	-	-	-	-
Total notionals	6	21,590	9,809	18,317	5,070
Fair values					
Positive fair value (asset)	7	122	6	65	3
Negative fair value (liability)	8	21	1	45	5

CCR6 - CREDIT DERIVATIVES EXPOSURES

CCR6 - CREDIT DERIVATIVES EXPOSURES	LINE	Q4 2021	
		Protection bought	Protection sold
		a	b
(\$ millions)	#		
Notionals			
Single-name credit default swaps	1	778	179
Index credit default swaps	2	11,579	4,979
Total return swaps	3	4,342	3
Credit options	4	-	-
Other credit derivatives	5	-	-
Total notionals	6	16,699	5,161
Fair values			
Positive fair value (asset)	7	41	120
Negative fair value (liability)	8	356	4

(1) Prior period has been reclassified to conform with current period's presentation.

CCR8 - EXPOSURES TO CENTRAL COUNTERPARTIES

(\$ millions)

		Q4 2022		Q3 2022		Q2 2022		Q1 2022		Q4 2021	
		EAD (post-CRM)	RWA	EAD (post-CRM)	RWA	EAD (post-CRM)	RWA	EAD (post-CRM)	RWA	EAD (post-CRM)	RWA
		a	b	c	d	e	f	g	h	i	j
1	Exposures to QCCPs (total)		914		795		777		1,053		780
2	Exposures for trades at QCCPs (excluding initial margin and default fund contributions); of which:										
3	(i) OTC derivatives	13,698	287	14,775	308	17,803	362	23,207	474	18,440	380
4	(ii) Exchange-traded derivatives	4,961	113	4,223	97	4,478	96	4,684	104	3,701	85
5	(iii) Securities financing transactions	7,422	148	9,301	186	12,355	247	16,658	333	13,902	278
6	(iv) Netting sets where cross-product netting has been approved	1,315	26	1,251	25	970	19	1,865	37	837	17
7	Segregated initial margin	-	-	-	-	-	-	-	-	-	-
8	Non-segregated initial margin	-	-	-	-	-	-	-	-	-	-
9	Pre-funded default fund contributions	6,266		6,587		7,404		6,974		5,423	
10	Unfunded default fund contributions	1,112	627	1,098	487	835	415	1,105	579	894	400
11	Exposures to non-QCCPs (total)	-	-	-	-	-	-	-	-	-	-
12	Exposures for trades at non-QCCPs (excluding initial margin and default fund contributions); of which:										
13	(i) OTC derivatives	-	-	-	-	-	-	-	-	-	-
14	(ii) Exchange-traded derivatives	-	-	-	-	-	-	-	-	-	-
15	(iii) Securities financing transactions	-	-	-	-	-	-	-	-	-	-
16	(iv) Netting sets where cross-product netting has been approved	-	-	-	-	-	-	-	-	-	-
17	Segregated initial margin	-	-	-	-	-	-	-	-	-	-
18	Non-segregated initial margin	-	-	-	-	-	-	-	-	-	-
19	Pre-funded default fund contributions	-	-	-	-	-	-	-	-	-	-
20	Unfunded default fund contributions	-	-	-	-	-	-	-	-	-	-

DERIVATIVE INSTRUMENTS	LINE #	Q4 2022				Q3 2022			
		Notional Amount	Replacement Cost	Credit Risk Equivalent	Risk-weighted Assets (1)	Notional Amount (2)	Replacement Cost	Credit Risk Equivalent	Risk-weighted Assets (1)
(\$ millions)									
Interest Rate Contracts									
Over-the-counter Swaps (3)	1	5,954,761	4,133	8,718	764	5,229,519	3,182	7,769	1,175
Forward rate agreements	2	22,397	943	1,773	430	22,120	641	1,644	420
Purchased options	3	98,113	48	170	46	87,437	56	182	52
Written options	4	87,941	4	131	67	79,247	17	156	88
	5	6,163,212	5,128	10,792	1,307	5,418,323	3,896	9,751	1,735
Exchange traded Futures	6	402,074	231	359	7	393,592	1,295	1,859	37
Purchased options	7	23,854	159	227	5	24,528	241	342	7
Written options	8	11,073	7	11	-	10,293	-	2	-
	9	437,001	397	597	12	428,413	1,536	2,203	44
Total Interest Rate Contracts	10	6,600,213	5,525	11,389	1,319	5,846,736	5,432	11,954	1,779
Foreign Exchange Contracts									
Over-the-counter Swaps	11	702,068	1,645	5,535	880	653,103	1,216	4,962	800
Forward foreign exchange contracts	12	481,773	2,250	8,339	1,237	467,058	915	6,491	1,058
Purchased options	13	72,733	321	681	183	56,156	151	385	100
Written options	14	74,041	2	88	30	58,768	5	100	33
	15	1,330,615	4,218	14,643	2,330	1,235,085	2,287	11,938	1,991
Exchange traded Futures	16	1,032	-	2	-	1,189	-	-	-
Purchased options	17	1,127	-	2	-	1,582	-	-	-
Written options	18	5,421	7	10	-	5,317	-	-	-
	19	7,580	7	14	-	8,088	-	-	-
Total Foreign Exchange Contracts	20	1,338,195	4,225	14,657	2,330	1,243,173	2,287	11,938	1,991
Commodity Contracts									
Over-the-counter Swaps	21	24,525	3,160	6,107	1,281	30,611	5,221	9,235	1,838
Purchased options	22	5,686	435	936	194	5,553	845	1,585	326
Written options	23	5,011	126	403	107	4,880	99	350	103
	24	35,222	3,721	7,446	1,582	41,044	6,165	11,170	2,267
Exchange traded Futures	25	44,836	1,122	2,055	41	48,800	1,292	2,374	47
Purchased options	26	34,177	356	552	11	29,251	79	157	3
Written options	27	34,245	303	471	9	29,022	38	95	2
	28	113,258	1,781	3,078	61	107,073	1,409	2,626	52
Total Commodity Contracts	29	148,480	5,502	10,524	1,643	148,117	7,574	13,796	2,319
Equity Contracts									
Over-the-counter	30	105,280	582	9,076	2,406	98,752	586	8,905	2,462
Exchange traded	31	162,102	1,580	3,888	78	120,888	2,011	4,472	89
Total Equity Contracts	32	267,382	2,162	12,964	2,484	219,640	2,597	13,377	2,551
Credit Contracts	33	27,870	97	562	103	27,135	247	734	71
Sub-total	34	8,382,140	17,511	50,096	7,879	7,484,801	18,137	51,799	8,711
Total	35	8,382,140	17,511	50,096	7,879	7,484,801	18,137	51,799	8,711

(1) Risk-weighted assets are reported after the impact of master netting agreements and application of 1.06 AIRB scaling factor, where applicable.

(2) Prior period has been reclassified to conform with current period's presentation.

(3) Interest Rate Contracts include Interest Rate Total Return Swaps.

DERIVATIVE INSTRUMENTS		Q2 2022				Q1 2022				Q4 2021			
		Notional Amount	Replacement Cost	Credit Risk Equivalent	Risk-weighted Assets (1)	Notional Amount	Replacement Cost	Credit Risk Equivalent	Risk-weighted Assets (1)	Notional Amount	Replacement Cost	Credit Risk Equivalent	Risk-weighted Assets (1)
(\$ millions)		LINE #											
Interest Rate Contracts													
Over-the-counter													
Swaps (2)	1	5,213,184	3,078	7,636	908	4,671,446	2,785	7,556	1,209	4,151,291	2,636	6,936	1,422
Forward rate agreements	2	12,664	973	2,046	359	19,976	827	2,166	686	147,657	667	2,545	826
Purchased options	3	79,337	201	368	240	73,733	195	354	238	69,491	16	72	81
Written options	4	71,896	7	129	74	70,984	11	132	80	68,155	20	105	70
	5	5,377,081	4,259	10,179	1,581	4,836,139	3,818	10,208	2,213	4,436,594	3,339	9,658	2,399
Exchange traded													
Futures	6	273,572	1,005	1,442	29	267,790	1,250	1,801	36	232,972	71	141	3
Purchased options	7	17,509	36	53	1	16,096	58	83	2	10,611	2	4	-
Written options	8	13,470	-	2	-	4,494	-	1	-	3,621	2	4	-
	9	304,551	1,041	1,497	30	288,380	1,308	1,885	38	247,204	75	149	3
Total Interest Rate Contracts	10	5,681,632	5,300	11,676	1,611	5,124,519	5,126	12,093	2,251	4,683,798	3,414	9,807	2,402
Foreign Exchange Contracts													
Over-the-counter													
Swaps	11	660,616	1,270	5,314	911	620,902	1,095	4,981	960	599,333	1,087	4,609	987
Forward foreign exchange contracts	12	484,045	1,684	8,038	1,267	506,211	956	7,704	987	489,426	769	6,649	883
Purchased options	13	55,737	705	1,117	392	61,011	88	269	87	54,145	93	270	104
Written options	14	56,844	4	98	31	61,673	6	103	35	54,147	11	115	38
	15	1,257,242	3,663	14,567	2,601	1,249,797	2,145	13,057	2,069	1,197,051	1,960	11,643	2,012
Exchange traded													
Futures	16	1,054	-	1	-	322	-	-	-	222	1	2	-
Purchased options	17	1,664	-	1	-	1,577	-	1	-	1,762	15	22	-
Written options	18	5,144	-	-	-	4,925	-	1	-	4,735	26	37	1
	19	7,862	-	2	-	6,824	-	2	-	6,719	42	61	1
Total Foreign Exchange Contracts	20	1,265,104	3,663	14,569	2,601	1,256,621	2,145	13,059	2,069	1,203,770	2,002	11,704	2,013
Commodity Contracts													
Over-the-counter													
Swaps	21	34,351	5,627	10,064	2,177	27,986	4,064	7,700	2,149	28,892	4,357	8,183	2,148
Purchased options	22	5,187	1,113	2,054	544	4,198	654	1,352	455	4,526	1,537	2,601	457
Written options	23	4,566	111	360	136	2,979	25	200	84	3,132	6	175	51
	24	44,104	6,851	12,478	2,857	35,163	4,743	9,252	2,688	36,550	5,900	10,959	2,656
Exchange traded													
Futures	25	47,649	1,193	2,402	48	37,576	1,018	1,967	39	39,448	1,829	3,244	65
Purchased options	26	19,911	196	350	7	11,175	620	910	18	10,020	474	721	14
Written options	27	19,068	29	116	2	11,849	19	76	2	11,000	463	727	15
	28	86,628	1,418	2,868	57	60,600	1,657	2,953	59	60,468	2,766	4,692	94
Total Commodity Contracts	29	130,732	8,269	15,346	2,914	95,763	6,400	12,205	2,747	97,018	8,666	15,651	2,750
Equity Contracts													
Over-the-counter	30	104,419	904	9,556	2,591	93,410	374	9,250	2,616	99,478	467	9,754	2,663
Exchange traded	31	118,460	4,025	7,987	160	128,878	6,262	11,819	236	106,302	3,873	7,938	159
Total Equity Contracts	32	222,879	4,929	17,543	2,751	222,288	6,636	21,069	2,852	205,780	4,340	17,692	2,822
Credit Contracts		33	27,435	74	526	20,300	241	638	39	17,516	277	721	79
Sub-total	34	7,327,782	22,235	59,660	9,927	6,719,491	20,548	59,064	9,958	6,207,882	18,699	55,575	10,066
Total	35	7,327,782	22,235	59,660	9,927	6,719,491	20,548	59,064	9,958	6,207,882	18,699	55,575	10,066

(1) Risk-weighted assets are reported after the impact of master netting agreements and application of 1.06 AIRB scaling factor where applicable.

(2) Interest Rate Contracts include Interest Rate Total Return Swaps.

SEC1 - SECURITIZATION EXPOSURES IN THE BANKING BOOK (1) (2)

(\$ millions)		Q4 2022								
		Bank acts as originator			Bank acts as sponsor			Bank acts as investor		
		Traditional	Synthetic	Sub-total	Traditional	Synthetic	Sub-total	Traditional	Synthetic	Sub-total
		a	b	c	d	e	f	g	h	i
1	Total retail, of which:	2,347	-	2,347	16,541	-	16,541	230	-	230
2	Residential mortgage (3)	-	-	-	1,326	-	1,326	133	-	133
3	Credit card	1,890	-	1,890	1,164	-	1,164	-	-	-
4	Other retail exposures	457	-	457	14,051	-	14,051	97	-	97
5	Re-securitization	-	-	-	-	-	-	-	-	-
6	Total wholesale, of which:	769	40,287	41,056	6,674	-	6,674	31	-	31
7	Loans to corporates	644	40,287	40,931	242	-	242	-	-	-
8	Commercial mortgage	125	-	125	-	-	-	-	-	-
9	Lease and receivables	-	-	-	4,889	-	4,889	26	-	26
10	Other wholesale	-	-	-	1,543	-	1,543	5	-	5
11	Re-securitization	-	-	-	-	-	-	-	-	-

SEC1 - SECURITIZATION EXPOSURES IN THE BANKING BOOK (1) (2)

(\$ millions)		Q3 2022								
		Bank acts as originator			Bank acts as sponsor			Bank acts as investor		
		Traditional	Synthetic	Sub-total	Traditional	Synthetic	Sub-total	Traditional	Synthetic	Synthetic
		a	b	c	d	e	f	g	h	i
1	Total retail, of which:	2,099	-	2,099	16,298	-	16,298	180	-	180
2	Residential mortgage (3)	-	-	-	1,020	-	1,020	143	-	143
3	Credit card	1,890	-	1,890	1,115	-	1,115	-	-	-
4	Other retail exposures	209	-	209	14,163	-	14,163	37	-	37
5	Re-securitization	-	-	-	-	-	-	-	-	-
6	Total wholesale, of which:	643	24,550	25,193	5,755	-	5,755	43	-	43
7	Loans to corporates	545	24,550	25,095	216	-	216	-	-	-
8	Commercial mortgage	98	-	98	-	-	-	-	-	-
9	Lease and receivables	-	-	-	4,015	-	4,015	37	-	37
10	Other wholesale	-	-	-	1,524	-	1,524	6	-	6
11	Re-securitization	-	-	-	-	-	-	-	-	-

- (1) The amounts disclosed represent the carrying value of securitization exposures in the banking book, including securitization exposures where the criteria for recognition of risk transference are not met and where capital is not calculated under OSFI's CAR guideline, Chapter 7, structured credit products. At October 31, 2022, \$398 million (\$135 million at July 31, 2022, \$163 million at April 30, 2022, \$287 million at January 31, 2022, and \$115 million at October 31, 2021) securitizations were capitalized under the Credit Risk framework.
- (2) The table excludes securitization-related assets of \$9,807 million at October 31, 2022 (\$6,974 million at July 31, 2022, \$7,015 million at April 30, 2022, and \$6,486 at January 31, 2022, and \$7,451 million at October 31, 2021) that are not subject to capital requirements but consolidated on the balance sheet for accounting purposes.
- (3) Excludes mortgage-backed securities that do not involve the tranching of credit risk (e.g. NHA MBS) which are not considered securitizations as per OSFI's CAR Guideline, Chapter 7, Structured Credit Products.

SEC1 - SECURITIZATION EXPOSURES IN THE BANKING BOOK (1) (2)

(\$ millions)		Q2 2022								
		Bank acts as originator			Bank acts as sponsor			Bank acts as investor		
		Traditional	Synthetic	Sub-total	Traditional	Synthetic	Sub-total	Traditional	Synthetic	Sub-total
		a	b	c	d	e	f	g	h	i
1	Total retail, of which:	2,129	-	2,129	13,538	-	13,538	194	-	194
2	Residential mortgage (3)	-	-	-	544	-	544	155	-	155
3	Credit card	1,890	-	1,890	1,065	-	1,065	-	-	-
4	Other retail exposures	239	-	239	11,929	-	11,929	39	-	39
5	Re-securitization	-	-	-	-	-	-	-	-	-
6	Total wholesale, of which:	190	24,438	24,628	5,631	-	5,631	57	-	57
7	Loans to corporates	115	24,438	24,553	218	-	218	-	-	-
8	Commercial mortgage	75	-	75	-	-	-	-	-	-
9	Lease and receivables	-	-	-	4,032	-	4,032	51	-	51
10	Other wholesale	-	-	-	1,381	-	1,381	6	-	6
11	Re-securitization	-	-	-	-	-	-	-	-	-

SEC1 - SECURITIZATION EXPOSURES IN THE BANKING BOOK (1) (2)

(\$ millions)		Q1 2022								
		Bank acts as originator			Bank acts as sponsor			Bank acts as investor		
		Traditional	Synthetic	Sub-total	Traditional	Synthetic	Sub-total	Traditional	Synthetic	Sub-total
		a	b	c	d	e	f	g	h	i
1	Total retail, of which:	349	-	349	12,279	-	12,279	137	-	137
2	Residential mortgage (3)	-	-	-	565	-	565	95	-	95
3	Credit card	-	-	-	959	-	959	-	-	-
4	Other retail exposures	349	-	349	10,755	-	10,755	42	-	42
5	Re-securitization	-	-	-	-	-	-	-	-	-
6	Total wholesale, of which:	134	12,713	12,847	5,429	-	5,429	66	-	66
7	Loans to corporates	117	12,713	12,830	216	-	216	-	-	-
8	Commercial mortgage	17	-	17	-	-	-	-	-	-
9	Lease and receivables	-	-	-	3,833	-	3,833	60	-	60
10	Other wholesale	-	-	-	1,380	-	1,380	6	-	6
11	Re-securitization	-	-	-	-	-	-	-	-	-

SEC1 - SECURITIZATION EXPOSURES IN THE BANKING BOOK (1) (2)

(\$ millions)		Q4 2021								
		Bank acts as originator			Bank acts as sponsor			Bank acts as investor		
		Traditional	Synthetic	Sub-total	Traditional	Synthetic	Sub-total	Traditional	Synthetic	Sub-total
		a	b	c	d	e	f	g	h	i
1	Total retail, of which:	193	-	193	11,942	-	11,942	136	-	136
2	Residential mortgage (3)	-	-	-	671	-	671	81	-	81
3	Credit card	-	-	-	939	-	939	-	-	-
4	Other retail exposures	193	-	193	10,332	-	10,332	55	-	55
5	Re-securitization	-	-	-	-	-	-	-	-	-
6	Total wholesale, of which:	111	12,359	12,470	5,382	-	5,382	25	-	25
7	Loans to corporates	104	12,359	12,463	210	-	210	-	-	-
8	Commercial mortgage	7	-	7	-	-	-	-	-	-
9	Lease and receivables	-	-	-	3,798	-	3,798	19	-	19
10	Other wholesale	-	-	-	1,374	-	1,374	6	-	6
11	Re-securitization	-	-	-	-	-	-	-	-	-

(1) The amounts disclosed represent the carrying value of securitization exposures in the banking book, including securitization exposures where the criteria for recognition of risk transference are not met and where capital is not calculated under OSFI's CAR guideline, Chapter 7, structured credit products. At October 31, 2022, \$398 million (\$135 million at July 31, 2022, \$163 million at April 30, 2022, \$287 million at January 31, 2022, and \$115 million at October 31, 2021) securitizations were capitalized under the Credit Risk framework.

(2) The table excludes securitization-related assets of \$9,807 million at October 31, 2022 (\$6,974 million at July 31, 2022, \$7,015 million at April 30, 2022, and \$6,486 at January 31, 2022, and \$7,451 million at October 31, 2021) that are not subject to capital requirements but consolidated on the balance sheet for accounting purposes.

(3) Excludes mortgage-backed securities that do not involve the tranching of credit risk (e.g. NHA MBS) which are not considered securitizations as per OSFI's CAR Guideline, Chapter 7, Structured Credit Products.

SEC2 - SECURITIZATION EXPOSURES IN THE TRADING BOOK (1)

(\$ millions)		Q4 2022								
		Bank acts as originator			Bank acts as sponsor			Bank acts as investor		
		Traditional	Synthetic	Sub-total	Traditional	Synthetic	Sub-total	Traditional	Synthetic	Sub-total
		a	b	c	d	e	f	g	h	i
1	Total retail, of which:	-	-	-	-	-	-	220	-	220
2	Residential mortgage	-	-	-	-	-	-	118	-	118
3	Credit card	-	-	-	-	-	-	2	-	2
4	Auto loans/leases	-	-	-	-	-	-	85	-	85
5	Student loans	-	-	-	-	-	-	7	-	7
6	Other retail exposures	-	-	-	-	-	-	8	-	8
7	Re-securitization	-	-	-	-	-	-	-	-	-
8	Total wholesale, of which:	-	-	-	-	-	-	202	-	202
9	Loans to corporates	-	-	-	-	-	-	48	-	48
10	Commercial mortgage	-	-	-	-	-	-	149	-	149
11	Lease and receivables	-	-	-	-	-	-	5	-	5
12	Auto floorplan	-	-	-	-	-	-	-	-	-
13	Insurance premium	-	-	-	-	-	-	-	-	-
14	Other wholesale	-	-	-	-	-	-	-	-	-
15	Re-securitization	-	-	-	-	-	-	-	-	-

SEC2 - SECURITIZATION EXPOSURES IN THE TRADING BOOK (1)

(\$ millions)		Q3 2022								
		Bank acts as originator			Bank acts as sponsor			Bank acts as investor		
		Traditional	Synthetic	Sub-total	Traditional	Synthetic	Sub-total	Traditional	Synthetic	Sub-total
		a	b	c	d	e	f	g	h	i
1	Total retail, of which:	-	-	-	-	-	-	150	-	150
2	Residential mortgage	-	-	-	-	-	-	91	-	91
3	Credit card	-	-	-	-	-	-	(1)	-	(1)
4	Auto loans/leases	-	-	-	-	-	-	44	-	44
5	Student loans	-	-	-	-	-	-	12	-	12
6	Other retail exposures	-	-	-	-	-	-	4	-	4
7	Re-securitization	-	-	-	-	-	-	-	-	-
8	Total wholesale, of which:	-	-	-	-	-	-	31	-	31
9	Loans to corporates	-	-	-	-	-	-	-	-	-
10	Commercial mortgage	-	-	-	-	-	-	25	-	25
11	Lease and receivables	-	-	-	-	-	-	6	-	6
12	Auto floorplan	-	-	-	-	-	-	-	-	-
13	Insurance premium	-	-	-	-	-	-	-	-	-
14	Other wholesale	-	-	-	-	-	-	-	-	-
15	Re-securitization	-	-	-	-	-	-	-	-	-

(1) The amounts disclosed represent the net positions in the trading book.

SEC2 - SECURITIZATION EXPOSURES IN THE TRADING BOOK (1)

(\$ millions)		Q2 2022								
		Bank acts as originator			Bank acts as sponsor			Bank acts as investor		
		Traditional	Synthetic	Sub-total	Traditional	Synthetic	Sub-total	Traditional	Synthetic	Sub-total
		a	b	c	d	e	f	g	h	i
1	Total retail, of which:	-	-	-	-	-	-	191	-	191
2	Residential mortgage	-	-	-	-	-	-	108	-	108
3	Credit card	-	-	-	-	-	-	(4)	-	(4)
4	Auto loans/leases	-	-	-	-	-	-	84	-	84
5	Student loans	-	-	-	-	-	-	2	-	2
6	Other retail exposures	-	-	-	-	-	-	1	-	1
7	Re-securitization	-	-	-	-	-	-	-	-	-
8	Total wholesale, of which:	-	-	-	-	-	-	66	-	66
9	Loans to corporates	-	-	-	-	-	-	-	-	-
10	Commercial mortgage	-	-	-	-	-	-	49	-	49
11	Lease and receivables	-	-	-	-	-	-	17	-	17
12	Auto floorplan	-	-	-	-	-	-	-	-	-
13	Insurance premium	-	-	-	-	-	-	-	-	-
14	Other wholesale	-	-	-	-	-	-	-	-	-
15	Re-securitization	-	-	-	-	-	-	-	-	-

SEC2 - SECURITIZATION EXPOSURES IN THE TRADING BOOK (1)

(\$ millions)		Q1 2022								
		Bank acts as originator			Bank acts as sponsor			Bank acts as investor		
		Traditional	Synthetic	Sub-total	Traditional	Synthetic	Sub-total	Traditional	Synthetic	Sub-total
		a	b	c	d	e	f	g	h	i
1	Total retail, of which:	-	-	-	-	-	-	133	-	133
2	Residential mortgage	-	-	-	-	-	-	84	-	84
3	Credit card	-	-	-	-	-	-	(27)	-	(27)
4	Auto loans/leases	-	-	-	-	-	-	67	-	67
5	Student loans	-	-	-	-	-	-	-	-	-
6	Other retail exposures	-	-	-	-	-	-	9	-	9
7	Re-securitization	-	-	-	-	-	-	-	-	-
8	Total wholesale, of which:	-	-	-	-	-	-	87	-	87
9	Loans to corporates	-	-	-	-	-	-	-	-	-
10	Commercial mortgage	-	-	-	-	-	-	76	-	76
11	Lease and receivables	-	-	-	-	-	-	11	-	11
12	Auto floorplan	-	-	-	-	-	-	-	-	-
13	Insurance premium	-	-	-	-	-	-	-	-	-
14	Other wholesale	-	-	-	-	-	-	-	-	-
15	Re-securitization	-	-	-	-	-	-	-	-	-

SEC2 - SECURITIZATION EXPOSURES IN THE TRADING BOOK (1)

(\$ millions)		Q4 2021								
		Bank acts as originator			Bank acts as sponsor			Bank acts as investor		
		Traditional	Synthetic	Sub-total	Traditional	Synthetic	Sub-total	Traditional	Synthetic	Sub-total
		a	b	c	d	e	f	g	h	i
1	Total retail, of which:	-	-	-	-	-	-	207	-	207
2	Residential mortgage	-	-	-	-	-	-	79	-	79
3	Credit card	-	-	-	-	-	-	(2)	-	(2)
4	Auto loans/leases	-	-	-	-	-	-	129	-	129
5	Student loans	-	-	-	-	-	-	-	-	-
6	Other retail exposures	-	-	-	-	-	-	1	-	1
7	Re-securitization	-	-	-	-	-	-	-	-	-
8	Total wholesale, of which:	-	-	-	-	-	-	99	-	99
9	Loans to corporates	-	-	-	-	-	-	5	-	5
10	Commercial mortgage	-	-	-	-	-	-	92	-	92
11	Lease and receivables	-	-	-	-	-	-	2	-	2
12	Auto floorplan	-	-	-	-	-	-	-	-	-
13	Insurance premium	-	-	-	-	-	-	-	-	-
14	Other wholesale	-	-	-	-	-	-	-	-	-
15	Re-securitization	-	-	-	-	-	-	-	-	-

(1) The amounts disclosed represent the net positions in the trading book.

SEC3 - SECURITIZATION EXPOSURES IN THE BANKING BOOK AND ASSOCIATED CAPITAL REQUIREMENTS (BANK ACTING AS ORIGINATOR OR AS SPONSOR) (1)

(\$ millions)		Q4 2022																
		Exposure values by RW bands (2)					Exposure values by regulatory approach (2)				RWA by regulatory approach (3)				Capital charge after cap			
		≤20%	>20% to 50%	>50% to 100%	>100% to <1250%	1250% RW	SEC-IRBA	SEC-ERBA, including IAA	SEC-SA	1250%	SEC-IRBA	SEC-ERBA, including IAA	SEC-SA	1250%	SEC-IRBA	SEC-ERBA, including IAA	SEC-SA	1250%
		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q
1	Total exposures	59,635	3,013	146	64	4	53,064	560	9,238	-	8,266	125	1,597	-	644	10	106	-
2	Traditional securitization	23,098	2,621	146	64	4	16,135	560	9,238	-	2,634	125	1,597	-	193	10	106	-
3	Of which securitization	23,098	2,621	146	64	4	16,135	560	9,238	-	2,634	125	1,597	-	193	10	106	-
4	Of which retail underlying	16,462	1,976	32	16	4	10,328	560	7,602	-	1,469	125	1,229	-	117	10	82	-
5	Of which wholesale	6,636	645	114	48	-	5,807	-	1,636	-	1,165	-	368	-	76	-	24	-
6	Of which re-securitization	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	Of which senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	Of which non-senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	Synthetic securitization	36,537	392	-	-	-	36,929	-	-	-	5,632	-	-	-	451	-	-	-
10	Of which securitization	36,537	392	-	-	-	36,929	-	-	-	5,632	-	-	-	451	-	-	-
11	Of which retail underlying	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	Of which wholesale	36,537	392	-	-	-	36,929	-	-	-	5,632	-	-	-	451	-	-	-
13	Of which re-securitization	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	Of which senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	Of which non-senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

SEC3 - SECURITIZATION EXPOSURES IN THE BANKING BOOK AND ASSOCIATED CAPITAL REQUIREMENTS (BANK ACTING AS ORIGINATOR OR AS SPONSOR) (1)

(\$ millions)		Q3 2022																
		Exposure values by RW bands (2)					Exposure values by regulatory approach (2)				RWA by regulatory approach (3)				Capital charge after cap			
		≤20%	>20% to 50%	>50% to 100%	>100% to <1250%	1250% RW	SEC-IRBA	SEC-ERBA, including IAA	SEC-SA	1250%	SEC-IRBA	SEC-ERBA, including IAA	SEC-SA	1250%	SEC-IRBA	SEC-ERBA, including IAA	SEC-SA	1250%
		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q
1	Total exposures	44,007	2,828	155	45	16	38,533	560	7,958	-	5,933	125	1,528	-	460	11	99	-
2	Traditional securitization	21,927	2,552	119	45	16	16,141	560	7,958	-	2,459	125	1,528	-	181	11	99	-
3	Of which securitization	21,927	2,552	119	45	16	16,141	560	7,958	-	2,459	125	1,528	-	181	11	99	-
4	Of which retail underlying	16,226	1,987	32	-	16	10,416	560	7,285	-	1,361	125	1,283	-	108	11	86	-
5	Of which wholesale	5,701	565	87	45	-	5,725	-	673	-	1,098	-	245	-	73	-	13	-
6	Of which re-securitization	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	Of which senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	Of which non-senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	Synthetic securitization	22,080	276	36	-	-	22,392	-	-	-	3,474	-	-	-	279	-	-	-
10	Of which securitization	22,080	276	36	-	-	22,392	-	-	-	3,474	-	-	-	279	-	-	-
11	Of which retail underlying	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	Of which wholesale	22,080	276	36	-	-	22,392	-	-	-	3,474	-	-	-	279	-	-	-
13	Of which re-securitization	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	Of which senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	Of which non-senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

(1) Only includes securitization exposures where the risk transference recognition criteria are met in accordance with OSFI's CAR Guidelines, Chapter 7, Structured Credit Products.

(2) Exposure amounts are net of collateral.

(3) RWA before application of the KIRB cap.

SEC3 - SECURITIZATION EXPOSURES IN THE BANKING BOOK AND ASSOCIATED CAPITAL REQUIREMENTS (BANK ACTING AS ORIGINATOR OR AS SPONSOR) (1)

(\$ millions)		Q2 2022																
		Exposure values by RW bands (2)					Exposure values by regulatory approach (2)				RWA by regulatory approach (3)				Capital charge after cap			
		≤20%	>20% to 50%	>50% to 100%	>100% to <1250%	1250% RW	SEC-IRBA	SEC-ERBA, including IAA	SEC-SA	1250%	SEC-IRBA	SEC-ERBA, including IAA	SEC-SA	1250%	SEC-IRBA	SEC-ERBA, including IAA	SEC-SA	1250%
		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q
1	Total exposures	41,112	2,254	195	45	18	36,627	560	6,437	-	5,747	125	1,241	-	442	11	82	-
2	Traditional securitization	19,046	2,120	96	45	18	14,328	560	6,437	-	2,324	125	1,241	-	168	11	82	-
3	Of which securitization	19,046	2,120	96	45	18	14,328	560	6,437	-	2,324	125	1,241	-	168	11	82	-
4	Of which retail underlying	13,466	1,987	32	-	18	9,215	560	5,728	-	1,358	125	1,035	-	106	11	70	-
5	Of which wholesale	5,580	133	64	45	-	5,113	-	709	-	966	-	206	-	62	-	12	-
6	Of which re-securitization	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	Of which senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	Of which non-senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	Synthetic securitization	22,066	134	99	-	-	22,299	-	-	-	3,423	-	-	-	274	-	-	-
10	Of which securitization	22,066	134	99	-	-	22,299	-	-	-	3,423	-	-	-	274	-	-	-
11	Of which retail underlying	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	Of which wholesale	22,066	134	99	-	-	22,299	-	-	-	3,423	-	-	-	274	-	-	-
13	Of which re-securitization	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	Of which senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	Of which non-senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

SEC3 - SECURITIZATION EXPOSURES IN THE BANKING BOOK AND ASSOCIATED CAPITAL REQUIREMENTS (BANK ACTING AS ORIGINATOR OR AS SPONSOR) (1)

(\$ millions)		Q1 2022																
		Exposure values by RW bands (2)					Exposure values by regulatory approach (2)				RWA by regulatory approach (3)				Capital charge after cap			
		≤20%	>20% to 50%	>50% to 100%	>100% to <1250%	1250% RW	SEC-IRBA	SEC-ERBA, including IAA	SEC-SA	1250%	SEC-IRBA	SEC-ERBA, including IAA	SEC-SA	1250%	SEC-IRBA	SEC-ERBA, including IAA	SEC-SA	1250%
		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q
1	Total exposures	29,005	247	54	32	19	23,140	560	5,657	-	3,422	125	994	-	265	10	70	-
2	Traditional securitization	17,586	211	54	32	19	11,685	560	5,657	-	1,653	125	994	-	124	10	70	-
3	Of which securitization	17,586	211	54	32	19	11,685	560	5,657	-	1,653	125	994	-	124	10	70	-
4	Of which retail underlying	12,208	81	32	-	19	6,791	560	4,989	-	836	125	865	-	67	10	61	-
5	Of which wholesale	5,378	130	22	32	-	4,894	-	668	-	817	-	129	-	57	-	9	-
6	Of which re-securitization	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	Of which senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	Of which non-senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	Synthetic securitization	11,419	36	-	-	-	11,455	-	-	-	1,769	-	-	-	141	-	-	-
10	Of which securitization	11,419	36	-	-	-	11,455	-	-	-	1,769	-	-	-	141	-	-	-
11	Of which retail underlying	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	Of which wholesale	11,419	36	-	-	-	11,455	-	-	-	1,769	-	-	-	141	-	-	-
13	Of which re-securitization	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	Of which senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	Of which non-senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

SEC3 - SECURITIZATION EXPOSURES IN THE BANKING BOOK AND ASSOCIATED CAPITAL REQUIREMENTS (BANK ACTING AS ORIGINATOR OR AS SPONSOR) (1)

(\$ millions)		Q4 2021																
		Exposure values by RW bands (2)					Exposure values by regulatory approach (2)				RWA by regulatory approach (3)				Capital charge after cap			
		≤20%	>20% to 50%	>50% to 100%	>100% to <1250%	1250% RW	SEC-IRBA	SEC-ERBA, including IAA	SEC-SA	1250%	SEC-IRBA	SEC-ERBA, including IAA	SEC-SA	1250%	SEC-IRBA	SEC-ERBA, including IAA	SEC-SA	1250%
		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q
1	Total exposures	28,314	240	10	79	38	22,522	476	5,683	-	3,447	130	1,149	-	271	10	83	-
2	Traditional securitization	17,182	204	10	79	38	11,354	476	5,683	-	1,748	130	1,149	-	135	10	83	-
3	Of which securitization	17,182	204	10	79	38	11,354	476	5,683	-	1,748	130	1,149	-	135	10	83	-
4	Of which retail underlying	11,864	77	-	43	36	6,508	476	5,036	-	839	130	1,044	-	67	10	75	-
5	Of which wholesale	5,318	127	10	36	2	4,846	-	647	-	909	-	105	-	68	-	8	-
6	Of which re-securitization	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	Of which senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	Of which non-senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	Synthetic securitization	11,132	36	-	-	-	11,168	-	-	-	1,699	-	-	-	136	-	-	-
10	Of which securitization	11,132	36	-	-	-	11,168	-	-	-	1,699	-	-	-	136	-	-	-
11	Of which retail underlying	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	Of which wholesale	11,132	36	-	-	-	11,168	-	-	-	1,699	-	-	-	136	-	-	-
13	Of which re-securitization	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	Of which senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	Of which non-senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

(1) Only includes securitization exposures where the risk transferance recognition criteria are met in accordance with OSFI's CAR Guidelines, Chapter 7, Structured Credit Products.

(2) Exposure amounts are net of collateral.

(3) RWA before application of the KIRB cap.

SEC4 - SECURITIZATION EXPOSURES IN THE BANKING BOOK AND ASSOCIATED CAPITAL REQUIREMENTS (BANK ACTING AS INVESTOR) (1)

(\$ millions)		Q4 2022																
		Exposure values by RW bands (2)					Exposure values by regulatory approach (2)				RWA by regulatory approach (3)				Capital charge after cap			
		≤20%	>20% to 50%	>50% to 100%	>100% to <1250%	1250% RW	SEC-IRBA	SEC-ERBA, including IAA	SEC-SA	1250%	SEC-IRBA	SEC-ERBA, including IAA	SEC-SA	1250%	SEC-IRBA	SEC-ERBA, including IAA	SEC-SA	1250%
		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q
1	Total exposures	256	5	-	-	-	193	68	-	-	24	12	-	-	2	1	-	-
2	Traditional securitization	256	5	-	-	-	193	68	-	-	24	12	-	-	2	1	-	-
3	Of which securitization	256	5	-	-	-	193	68	-	-	24	12	-	-	2	1	-	-
4	Of which retail underlying	230	-	-	-	-	167	63	-	-	20	10	-	-	2	1	-	-
5	Of which wholesale	26	5	-	-	-	26	5	-	-	4	2	-	-	-	-	-	-
6	Of which re-securitization	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	Of which senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	Of which non-senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	Synthetic securitization	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	Of which securitization	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	Of which retail underlying	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	Of which wholesale	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	Of which re-securitization	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	Of which senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	Of which non-senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

SEC4 - SECURITIZATION EXPOSURES IN THE BANKING BOOK AND ASSOCIATED CAPITAL REQUIREMENTS (BANK ACTING AS INVESTOR) (1)

(\$ millions)		Q3 2022																
		Exposure values by RW bands (2)					Exposure values by regulatory approach (2)				RWA by regulatory approach (3)				Capital charge after cap			
		≤20%	>20% to 50%	>50% to 100%	>100% to <1250%	1250% RW	SEC-IRBA	SEC-ERBA, including IAA	SEC-SA	1250%	SEC-IRBA	SEC-ERBA, including IAA	SEC-SA	1250%	SEC-IRBA	SEC-ERBA, including IAA	SEC-SA	1250%
		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q
1	Total exposures	217	6	-	-	-	74	149	-	-	11	19	-	-	-	1	-	-
2	Traditional securitization	217	6	-	-	-	74	149	-	-	11	19	-	-	-	1	-	-
3	Of which securitization	217	6	-	-	-	74	149	-	-	11	19	-	-	-	1	-	-
4	Of which retail underlying	180	-	-	-	-	37	143	-	-	5	17	-	-	-	1	-	-
5	Of which wholesale	37	6	-	-	-	37	6	-	-	6	2	-	-	-	-	-	-
6	Of which re-securitization	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	Of which senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	Of which non-senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	Synthetic securitization	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	Of which securitization	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	Of which retail underlying	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	Of which wholesale	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	Of which re-securitization	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	Of which senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	Of which non-senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

(1) Only includes securitization exposures where the risk transference recognition criteria are met in accordance with OSFI's CAR Guidelines, Chapter 7, Structured Credit Products.

(2) Exposure amounts are net of collateral.

(3) RWA before application of the KIRB cap.

SEC4 - SECURITIZATION EXPOSURES IN THE BANKING BOOK AND ASSOCIATED CAPITAL REQUIREMENTS (BANK ACTING AS INVESTOR) (1)

(\$ millions)	Q2 2022																
	Exposure values by RW bands (2)					Exposure values by regulatory approach (2)				RWA by regulatory approach (3)				Capital charge after cap			
	≤20%	>20% to 50%	>50% to 100%	>100% to <1250%	1250% RW	SEC-IRBA	SEC-ERBA, including IAA	SEC-SA	1250%	SEC-IRBA	SEC-ERBA, including IAA	SEC-SA	1250%	SEC-IRBA	SEC-ERBA, including IAA	SEC-SA	1250%
	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q
1 Total exposures	245	6	-	-	-	90	161	-	-	14	20	-	-	2	1	-	-
2 Traditional securitization	245	6	-	-	-	90	161	-	-	14	20	-	-	2	1	-	-
3 Of which securitization	245	6	-	-	-	90	161	-	-	14	20	-	-	2	1	-	-
4 Of which retail underlying	194	-	-	-	-	39	155	-	-	6	18	-	-	-	1	-	-
5 Of which wholesale	51	6	-	-	-	51	6	-	-	8	2	-	-	2	-	-	-
6 Of which re-securitization	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7 Of which senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8 Of which non-senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9 Synthetic securitization	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 Of which securitization	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11 Of which retail underlying	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12 Of which wholesale	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13 Of which re-securitization	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14 Of which senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15 Of which non-senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

SEC4 - SECURITIZATION EXPOSURES IN THE BANKING BOOK AND ASSOCIATED CAPITAL REQUIREMENTS (BANK ACTING AS INVESTOR) (1)

(\$ millions)	Q1 2022																
	Exposure values by RW bands (2)					Exposure values by regulatory approach (2)				RWA by regulatory approach (3)				Capital charge after cap			
	≤20%	>20% to 50%	>50% to 100%	>100% to <1250%	1250% RW	SEC-IRBA	SEC-ERBA, including IAA	SEC-SA	1250%	SEC-IRBA	SEC-ERBA, including IAA	SEC-SA	1250%	SEC-IRBA	SEC-ERBA, including IAA	SEC-SA	1250%
	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q
1 Total exposures	197	6	-	-	-	102	101	-	-	15	12	-	-	2	1	-	-
2 Traditional securitization	197	6	-	-	-	102	101	-	-	15	12	-	-	2	1	-	-
3 Of which securitization	197	6	-	-	-	102	101	-	-	15	12	-	-	2	1	-	-
4 Of which retail underlying	137	-	-	-	-	42	95	-	-	6	10	-	-	1	1	-	-
5 Of which wholesale	60	6	-	-	-	60	6	-	-	9	2	-	-	1	-	-	-
6 Of which re-securitization	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7 Of which senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8 Of which non-senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9 Synthetic securitization	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 Of which securitization	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11 Of which retail underlying	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12 Of which wholesale	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13 Of which re-securitization	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14 Of which senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15 Of which non-senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

SEC4 - SECURITIZATION EXPOSURES IN THE BANKING BOOK AND ASSOCIATED CAPITAL REQUIREMENTS (BANK ACTING AS INVESTOR) (1)

(\$ millions)	Q4 2021																
	Exposure values by RW bands (2)					Exposure values by regulatory approach (2)				RWA by regulatory approach (3)				Capital charge after cap			
	≤20%	>20% to 50%	>50% to 100%	>100% to <1250%	1250% RW	SEC-IRBA	SEC-ERBA, including IAA	SEC-SA	1250%	SEC-IRBA	SEC-ERBA, including IAA	SEC-SA	1250%	SEC-IRBA	SEC-ERBA, including IAA	SEC-SA	1250%
	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q
1 Total exposures	155	6	-	-	-	74	87	-	-	11	11	-	-	1	1	-	-
2 Traditional securitization	155	6	-	-	-	74	87	-	-	11	11	-	-	1	1	-	-
3 Of which securitization	155	6	-	-	-	74	87	-	-	11	11	-	-	1	1	-	-
4 Of which retail underlying	136	-	-	-	-	55	81	-	-	8	8	-	-	1	1	-	-
5 Of which wholesale	19	6	-	-	-	19	6	-	-	3	3	-	-	-	-	-	-
6 Of which re-securitization	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7 Of which senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8 Of which non-senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9 Synthetic securitization	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 Of which securitization	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11 Of which retail underlying	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12 Of which wholesale	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13 Of which re-securitization	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14 Of which senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15 Of which non-senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

(1) Only includes securitization exposures where the risk transferance recognition criteria are met in accordance with OSFI's CAR Guidelines, Chapter 7, Structured Credit Products.

(2) Exposure amounts are net of collateral.

(3) RWA before application of the KIRB cap.

MARKET RISK RISK-WEIGHTED ASSETS (RWA) MOVEMENT BY KEY DRIVERS

(\$ millions)	LINE #	Q4 2022	Q3 2022	Q2 2022	Q1 2022	Q4 2021
Market Risk RWA, beginning of quarter	1	14,551	12,736	12,859	12,066	10,395
Movement in risk levels (1)	2	(964)	1,761	(261)	706	1,973
Model updates (2)	3	-	-	-	-	-
Methodology and policy (3)	4	(65)	54	138	87	(302)
Acquisition and disposals	5	-	-	-	-	-
Foreign exchange movement and others	6	-	-	-	-	-
Market Risk RWA, end of quarter	7	13,522	14,551	12,736	12,859	12,066

(1) Movement in risk levels includes changes in exposures and market movements.

(2) Model updates include updates to risk models to reflect recent experience and changes in model scope.

(3) Methodology and policy include methodology changes to the calculations driven by regulatory policy changes, such as new or revised regulation.

ESTIMATED AND ACTUAL LOSS PARAMETERS UNDER AIRB APPROACH

(\$ millions except as noted)

Risk Profile	LINE #	Q4 2022						Q3 2022					
		PD (1) (2) (3)		LGD (1) (4) (5)		EAD (6) (7)		PD (1) (2) (3)		LGD (1) (4) (5)		EAD (6) (7)	
		Average estimated	Actual	Average estimated	Actual	Estimated	Actual	Average estimated	Actual	Average estimated	Actual	Estimated	Actual
Wholesale													
Corporate	1	1.06%	0.25%	35.12%	22.74%	103	99	1.09%	0.27%	35.28%	19.70%	110	79
Sovereign	2	0.18%	0.05%	18.43%	0.00%	-	-	0.17%	0.00%	18.05%	0.00%	-	-
Bank	3	0.42%	0.00%	15.86%	0.00%	-	-	0.43%	0.00%	15.64%	0.00%	-	-
Retail													
Residential mortgages excluding home equity line of credits (HELOCs) - Uninsured only (8) (9)	4	0.72%	0.35%	14.98%	3.96%	227	227	0.72%	0.34%	16.99%	3.65%	229	229
HELOCs (9)	5	0.34%	0.16%	29.38%	7.24%	69	61	0.33%	0.15%	30.35%	9.39%	62	52
Qualifying revolving retail (QRR)	6	1.01%	0.84%	85.25%	74.96%	407	377	0.89%	0.81%	88.00%	73.06%	385	349
Other retail (excl. SMEs)	7	3.90%	3.49%	81.38%	77.31%	235	233	3.92%	3.52%	84.06%	77.53%	219	218
Retail SMEs	8	1.54%	0.95%	77.42%	64.13%	62	60	1.54%	0.90%	75.72%	60.93%	69	67

ESTIMATED AND ACTUAL LOSS PARAMETERS UNDER AIRB APPROACH

(\$ millions except as noted)

Risk Profile	LINE #	Q2 2022						Q1 2022					
		PD (1) (2) (3)		LGD (1) (4) (5)		EAD (6) (7)		PD (1) (2) (3)		LGD (1) (4) (5)		EAD (6) (7)	
		Average estimated	Actual	Average estimated	Actual	Estimated	Actual	Average estimated	Actual	Average estimated	Actual	Estimated	Actual
Wholesale													
Corporate	1	1.12%	0.27%	35.36%	16.71%	174	144	1.16%	0.26%	35.75%	15.85%	160	135
Sovereign	2	0.17%	0.00%	17.61%	0.00%	-	-	0.18%	0.00%	17.92%	0.00%	-	-
Bank	3	0.49%	0.00%	15.89%	0.00%	-	-	0.48%	0.00%	15.02%	0.00%	-	-
Retail													
Residential mortgages excluding home equity line of credits (HELOCs) - Uninsured only (8) (9)	4	0.76%	0.36%	16.72%	3.27%	229	229	0.81%	0.39%	17.18%	4.28%	248	248
HELOCs (9)	5	0.35%	0.16%	35.01%	7.72%	68	58	0.40%	0.18%	33.54%	9.50%	66	57
Qualifying revolving retail (QRR)	6	0.92%	0.83%	87.99%	83.54%	395	356	0.99%	0.91%	88.26%	82.95%	431	386
Other retail (excl. SMEs)	7	3.94%	3.50%	83.45%	77.17%	208	207	4.51%	3.79%	84.75%	77.52%	223	221
Retail SMEs	8	1.67%	0.91%	74.93%	64.70%	98	96	1.83%	1.05%	71.38%	61.29%	127	124

ESTIMATED AND ACTUAL LOSS PARAMETERS UNDER AIRB APPROACH

(\$ millions except as noted)

Risk Profile	LINE #	Q4 2021					
		PD (1) (2) (3)		LGD (1) (4) (5)		EAD (6) (7)	
		Average estimated	Actual	Average estimated	Actual	Estimated	Actual
Wholesale							
Corporate	1	1.16%	0.30%	35.89%	15.44%	135	96
Sovereign	2	0.18%	0.05%	17.62%	0.00%	-	-
Bank	3	0.49%	0.00%	15.07%	0.00%	-	-
Retail							
Residential mortgages excluding home equity line of credits (HELOCs) - Uninsured only (8) (9)	4	0.86%	0.47%	16.47%	5.25%	303	303
HELOCs (9)	5	0.41%	0.21%	30.96%	9.35%	78	66
Qualifying revolving retail (QRR)	6	0.96%	0.93%	87.69%	77.21%	434	391
Other retail (excl. SMEs)	7	4.35%	3.64%	84.20%	77.15%	251	248
Retail SMEs	8	1.87%	1.11%	70.34%	59.31%	141	138

(1) The actual percentages reflect the experience of the past 12 months and are compared to the estimated percentages as at the beginning of the 12 month period being assessed.

(2) Wholesale PDs are based on a borrower count simple average. There have been no Bank defaults in the past 12 months.

(3) Retail PDs are based on account weighted average.

(4) Wholesale LGDs are expressed as an exposure weighted average. The LGD figures include back-dated resolved facilities.

(5) Retail LGDs are based on weighted average of LGD eligible accounts.

(6) Wholesale EADs represent predicted vs. realized comparison for defaults in the previous 12 months. Term products are not included. There have been no defaults in the Bank asset class within the past 12 months.

(7) Retail EADs represent predicted vs. realized comparison for defaults in the previous 12 months.

(8) Mortgages insured by Canada Mortgage and Housing Corporation and private mortgage insurers are primarily included in Sovereign.

(9) Investor-owned mortgages are included in the Other Retail asset class.

CR9 - IRB - BACKTESTING OF PROBABILITY OF DEFAULT (PD) PER PORTFOLIO (1)

(\$ millions except as noted)

(\$ millions except as noted)

						Q4 2022						
						Weighted average PD (2)	Arithmetic average PD by obligors	Number of obligors (3)		Defaulted obligors in the year	Of which: new defaulted obligors in the year (4)	Average historical annual default rate (5)
								End of previous year	End of the year			
Risk Profile	BMO Rating	PD Range (%)	Moody's Investors Service implied equivalent	Standard & Poor's implied equivalent	LINE #	a	b	c		d	e	f
Residential mortgages and HELOCs												
Exceptionally low		≤ 0.05			1	0.04%	0.04%	94,280	98,310	22	1	0.03%
Very low		> 0.05 to 0.20			2	0.09%	0.09%	548,647	520,731	299	2	0.07%
Low		> 0.20 to 0.75			3	0.45%	0.41%	114,578	138,254	239	4	0.32%
Medium		> 0.75 to 7.00			4	3.09%	2.68%	60,439	76,449	770	7	2.00%
High		> 7.00 to 99.99			5	32.20%	27.16%	5,085	6,669	773	1	20.33%
Default		100.00 (Default)			6	100.00%	100.00%	-	-	-	-	100.00%
Sub-total					7			823,029	840,413	2,103	15	
Other retail												
Exceptionally low		≤ 0.05			8	0.04%	0.04%	20,353	12,557	5	-	0.03%
Very low		> 0.05 to 0.20			9	0.12%	0.14%	344,734	503,309	499	5	0.11%
Low		> 0.20 to 0.75			10	0.45%	0.39%	932,837	928,647	2,481	301	0.28%
Medium		> 0.75 to 7.00			11	2.14%	2.11%	623,789	506,695	8,878	1,023	1.64%
High		> 7.00 to 99.99			12	18.38%	26.93%	269,304	315,407	66,136	224	24.74%
Default		100.00 (Default)			13	100.00%	100.00%	-	-	-	-	100.00%
Sub-total					14			2,191,017	2,266,615	77,999	1,553	
Qualifying revolving retail												
Exceptionally low		≤ 0.05			15	0.04%	0.03%	2,576,705	2,652,349	880	-	0.02%
Very low		> 0.05 to 0.20			16	0.13%	0.12%	526,740	528,447	561	-	0.07%
Low		> 0.20 to 0.75			17	0.28%	0.29%	949,549	1,094,621	3,116	52	0.17%
Medium		> 0.75 to 7.00			18	1.83%	2.02%	654,754	914,388	14,409	1,237	1.44%
High		> 7.00 to 99.99			19	17.17%	18.05%	111,978	210,226	25,249	324	13.52%
Default		100.00 (Default)			20	100.00%	100.00%	-	-	-	-	100.00%
Sub-total					21			4,819,726	5,400,031	44,215	1,613	
Retail small-and-medium-sized entities												
Exceptionally low		≤ 0.05			22	0.00%	0.00%	2	2,760	-	-	0.00%
Very low		> 0.05 to 0.20			23	0.06%	0.07%	93,764	48,048	39	-	0.06%
Low		> 0.20 to 0.75			24	0.51%	0.44%	34,043	117,533	240	20	0.26%
Medium		> 0.75 to 7.00			25	3.00%	2.82%	65,942	50,827	584	16	1.98%
High		> 7.00 to 99.99			26	16.22%	19.84%	8,505	7,620	686	2	15.07%
Default		100.00 (Default)			27	100.00%	100.00%	-	-	-	-	100.00%
Sub-total					28			202,256	226,788	1,549	38	
Total (all retail portfolios)					29			8,036,028	8,733,847	125,866	3,219	

(1) The results shown in the table cover all models within these asset classes.

(2) Calculated as the obligor PD weighted by EAD.

(3) Obligor count for Retail portfolios is at the account level, excluding defaulted accounts. The reported count reflects the model coverage as at the reporting period for both the previous and current year.

(4) Calculated as the number of obligors having defaulted during the last 12-month period that were not funded at the end of the previous year.

(5) Retail portfolios use 5-16 year average of the annual default rate.

CR9 - IRB - BACKTESTING OF PROBABILITY OF DEFAULT (PD) PER PORTFOLIO (1)

(\$ millions except as noted)

(\$ millions except as noted)						Q4 2022							
						Weighted average PD (2)	Arithmetic average PD by obligors	Number of obligors (3)		Defaulted obligors in the year	Of which: new defaulted obligors in the year (4)	Average historical annual default rate (5)	
								End of previous year	End of the year				
													d
Risk Profile	Rating	PD Range (%)	Moody's Investors Service implied equivalent	Standard & Poor's implied equivalent	LINE #	a	b	c	d	e	f		
Corporate													
Investment grade	I-1	≤ 0.02	-	-	1	0.00%	0.00%	-	-	-	-	0.00 %	
Investment grade	I-2	>0.02 to ≤ 0.03	Aaa/Aa1	AAA/AA+	2	0.03%	0.03%	65	79	-	-	0.00 %	
Investment grade	I-3	>0.03 to ≤ 0.07	Aa2/Aa3	AA/AA-	3	0.04%	0.06%	394	504	-	-	0.07 %	
Investment grade	I-4	>0.07 to ≤ 0.11	A1/A2/A3	A+/A/A-	4	0.07%	0.08%	1,827	2,131	1	-	0.04 %	
Investment grade	I-5	>0.11 to ≤ 0.19	Baa1	BBB+	5	0.11%	0.13%	3,644	4,054	1	-	0.07 %	
Investment grade	I-6	>0.19 to ≤ 0.32	Baa2	BBB	6	0.20%	0.22%	6,327	6,805	7	-	0.15 %	
Investment grade	I-7	>0.32 to ≤ 0.54	Baa3	BBB-	7	0.32%	0.32%	9,951	10,095	11	-	0.23 %	
Non-investment grade	S-1	>0.54 to ≤ 0.91	Ba1	BB+	8	0.59%	0.62%	7,780	8,013	14	1	0.50 %	
Non-investment grade	S-2	>0.91 to ≤ 1.54	Ba2	BB	9	0.97%	1.06%	7,283	6,491	12	-	0.87 %	
Non-investment grade	S-3	>1.54 to ≤ 2.74	Ba3	BB-	10	1.77%	1.75%	3,560	3,299	13	-	1.40 %	
Non-investment grade	S-4	>2.74 to ≤ 5.16	B1	B+	11	2.74%	2.74%	2,812	2,983	22	1	2.10 %	
Watchlist	P-1	>5.16 to ≤ 9.70	B2	B	12	6.46%	6.98%	420	462	6	-	6.72 %	
Watchlist	P-2	>9.70 to ≤ 18.23	B3	B-	13	13.85%	13.98%	777	761	53	-	14.14 %	
Watchlist	P-3	>18.23 to < 100.00	Caa/Ca	CCC/CC	14	20.14%	20.14%	181	167	12	-	20.46 %	
Default	Default	100.00 (Default)	C	C/D	15	100.00%	100.00%	-	-	-	-	0.00 %	
Sub-total					16			45,021	45,844	152	2		
Sovereign													
Investment grade	I-1	≤ 0.02	Aaa	AAA	17	0.00%	0.00%	28	33	-	-	0.00 %	
Investment grade	I-2	>0.02 to ≤ 0.03	Aa1/Aa2/Aa3	AA+/AA/AA-	18	0.02%	0.02%	372	372	-	-	0.00 %	
Investment grade	I-3	>0.03 to ≤ 0.07	A1/A2	A+/A	19	0.05%	0.04%	605	609	-	-	0.00 %	
Investment grade	I-4	>0.07 to ≤ 0.11	A3	A-	20	0.07%	0.08%	503	474	-	-	0.00 %	
Investment grade	I-5	>0.11 to ≤ 0.19	Baa1	BBB+	21	0.11%	0.12%	290	273	-	-	0.00 %	
Investment grade	I-6	>0.19 to ≤ 0.32	Baa2	BBB	22	0.20%	0.21%	104	113	-	-	0.00 %	
Investment grade	I-7	>0.32 to ≤ 0.54	Baa3	BBB-	23	0.32%	0.32%	89	90	-	-	0.00 %	
Non-investment grade	S-1	>0.54 to ≤ 0.91	Ba1	BB+	24	0.62%	0.62%	68	62	-	-	0.00 %	
Non-investment grade	S-2	>0.91 to ≤ 1.54	Ba2	BB	25	1.04%	1.05%	69	31	1	-	0.25 %	
Non-investment grade	S-3	>1.54 to ≤ 2.74	Ba3	BB-	26	1.75%	1.74%	33	23	-	-	0.00 %	
Non-investment grade	S-4	>2.74 to ≤ 5.16	B1	B+	27	2.74%	2.74%	58	79	-	-	0.00 %	
Watchlist	P-1	>5.16 to ≤ 9.70	B2	B	28	7.26%	7.26%	1	3	-	-	0.00 %	
Watchlist	P-2	>9.70 to ≤ 18.23	B3	B-	29	13.95%	13.95%	3	1	-	-	0.00 %	
Watchlist	P-3	>18.23 to < 100.00	Caa/Ca	CCC/CC	30	0.00%	0.00%	-	-	-	-	0.00 %	
Default	Default	100.00 (Default)	C	C/D	31	100.00%	100.00%	-	-	-	-	0.00 %	
Sub-total					32			2,223	2,163	1	-		
Bank													
Investment grade	I-1	≤ 0.02	-	-	33	0.00%	0.00%	-	-	-	-	0.00 %	
Investment grade	I-2	>0.02 to ≤ 0.03	Aaa/Aa1/Aa2/Aa3	AAA/AA+/AA/AA-	34	0.03%	0.03%	8	15	-	-	0.00 %	
Investment grade	I-3	>0.03 to ≤ 0.07	A1/A2	A+/A	35	0.05%	0.05%	52	55	-	-	0.05 %	
Investment grade	I-4	>0.07 to ≤ 0.11	A3	A-	36	0.07%	0.07%	58	71	-	-	0.00 %	
Investment grade	I-5	>0.11 to ≤ 0.19	Baa1	BBB+	37	0.11%	0.11%	58	75	-	-	0.05 %	
Investment grade	I-6	>0.19 to ≤ 0.32	Baa2	BBB	38	0.19%	0.19%	77	98	-	-	0.05 %	
Investment grade	I-7	>0.32 to ≤ 0.54	Baa3	BBB-	39	0.32%	0.32%	74	76	-	-	0.07 %	
Non-investment grade	S-1	>0.54 to ≤ 0.91	Ba1	BB+	40	0.54%	0.55%	28	38	-	-	0.08 %	
Non-investment grade	S-2	>0.91 to ≤ 1.54	Ba2	BB	41	0.92%	0.94%	18	18	-	-	0.32 %	
Non-investment grade	S-3	>1.54 to ≤ 2.74	Ba3	BB-	42	1.54%	1.57%	22	21	-	-	0.15 %	
Non-investment grade	S-4	>2.74 to ≤ 5.16	B1	B+	43	2.74%	2.74%	21	19	-	-	0.30 %	
Watchlist	P-1	>5.16 to ≤ 9.70	B2	B	44	5.16%	5.16%	-	-	-	-	0.00 %	
Watchlist	P-2	>9.70 to ≤ 18.23	B3	B-	45	0.00%	0.00%	1	1	-	-	2.78 %	
Watchlist	P-3	>18.23 to < 100.00	Caa/Ca	CCC/CC	46	0.00%	0.00%	-	-	-	-	0.00 %	
Default	Default	100.00 (Default)	C	C/D	47	0.00%	0.00%	-	-	-	-	0.00 %	
Sub-total					48			417	487	-	-		
Total (all wholesale portfolios)					49			47,661	48,494	153	2		

(1) The results shown in the table cover all models within these asset classes.

(2) Calculated as the obligor PD weighted by EAD.

(3) Obligor count for Wholesale portfolios is at the borrower level, excluding defaulted obligors.

(4) Calculated as the number of obligors having defaulted during the last 12-month period that were not funded at the end of the previous year.

(5) Wholesale portfolios use 17 year average of the annual default rate.

CR9 - IRB - BACKTESTING OF PROBABILITY OF DEFAULT (PD) PER PORTFOLIO (1)

(\$ millions except as noted)

Risk Profile	BMO Rating	PD Range (%)	Moody's Investors Service implied equivalent	Standard & Poor's implied equivalent	LINE #	Q4 2021						
						Weighted average PD (2)	Arithmetic average PD by obligors	Number of obligors (3)		Defaulted obligors in the year	Of which: new defaulted obligors in the year (4)	Average historical annual default rate (5)
								End of previous year	End of the year			
						a	b	c		d	e	f
Residential mortgages and HELOCs												
Exceptionally low		≤ 0.05			1	0.04%	0.04%	92,792	94,280	31	1	0.03%
Very low		> 0.05 to 0.20			2	0.10%	0.09%	512,850	548,647	322	4	0.07%
Low		> 0.20 to 0.75			3	0.50%	0.44%	123,836	114,578	267	5	0.35%
Medium		> 0.75 to 7.00			4	3.45%	2.95%	72,998	60,439	1,017	15	2.30%
High		> 7.00 to 99.99			5	34.14%	29.12%	6,190	5,085	1,007	1	22.28%
Default		100.00 (Default)			6	100.00%	100.00%	-	-	-	-	100.00%
Sub-total					7			808,666	823,029	2,644	26	
Other retail												
Exceptionally low		≤ 0.05			8	0.04%	0.04%	13,991	20,353	7	1	0.03%
Very low		> 0.05 to 0.20			9	0.12%	0.14%	314,218	344,734	302	4	0.10%
Low		> 0.20 to 0.75			10	0.39%	0.34%	852,345	932,837	1,884	110	0.24%
Medium		> 0.75 to 7.00			11	2.05%	2.00%	627,842	623,789	7,800	383	1.43%
High		> 7.00 to 99.99			12	20.51%	28.55%	269,959	269,304	66,254	63	25.06%
Default		100.00 (Default)			13	100.00%	100.00%	-	-	-	-	100.00%
Sub-total					14			2,078,355	2,191,017	76,247	561	
Qualifying revolving retail												
Exceptionally low		≤ 0.05			15	0.03%	0.03%	1,810,069	2,576,705	743	-	0.02%
Very low		> 0.05 to 0.20			16	0.11%	0.11%	1,491,469	526,740	562	-	0.08%
Low		> 0.20 to 0.75			17	0.34%	0.36%	729,642	949,549	3,704	22	0.27%
Medium		> 0.75 to 7.00			18	2.30%	2.51%	538,362	654,754	13,875	389	2.15%
High		> 7.00 to 99.99			19	18.67%	20.09%	114,002	111,978	25,037	107	18.20%
Default		100.00 (Default)			20	100.00%	100.00%	-	-	-	-	100.00%
Sub-total					21			4,683,544	4,819,726	43,921	518	
Retail small-and-medium-sized entities												
Exceptionally low		≤ 0.05			22	0.03%	0.03%	37,503	2	-	-	0.00%
Very low		> 0.05 to 0.20			23	0.10%	0.11%	49,310	93,764	97	-	0.11%
Low		> 0.20 to 0.75			24	0.56%	0.48%	30,544	34,043	141	3	0.44%
Medium		> 0.75 to 7.00			25	2.88%	2.26%	35,459	65,942	777	8	1.88%
High		> 7.00 to 99.99			26	16.23%	16.38%	23,001	8,505	1,205	11	15.20%
Default		100.00 (Default)			27	100.00%	100.00%	-	-	-	-	100.00%
Sub-total					28			175,817	202,256	2,220	22	
Total (all retail portfolios)					29			7,746,382	8,036,028	125,032	1,127	

(1) The results shown in the table cover all models within these asset classes.

(2) Calculated as the obligor PD weighted by EAD.

(3) Obligor count for Retail portfolios is at the account level, excluding defaulted accounts.

(4) Calculated as the number of obligors having defaulted during the last 12-month period that were not funded at the end of the previous year.

(5) Retail portfolios use 6-15 year average of the annual default rate.

CR9 - IRB - BACKTESTING OF PROBABILITY OF DEFAULT (PD) PER PORTFOLIO (1)

(\$ millions except as noted)

(\$ millions except as noted)

						Q4 2021						
						Weighted average PD (2)	Arithmetic average PD by obligors	Number of obligors (3)		Defaulted obligors in the year	Of which: new defaulted obligors in the year (4)	Average historical annual default rate (5)
								End of previous year	End of the year			
Risk Profile	Rating	PD Range (%)	Moody's Investors Service implied equivalent	Standard & Poor's implied equivalent	LINE #	a	b	c		d	e	f
Corporate												
Investment grade	I-1	≤ 0.02	-	-	1	0.00%	0.00%	-	-	-	-	0.00 %
Investment grade	I-2	>0.02 to ≤ 0.03	Aaa/Aa1	AAA/AA+	2	0.03%	0.03%	77	65	-	-	0.00 %
Investment grade	I-3	>0.03 to ≤ 0.07	Aa2/Aa3	AA/AA-	3	0.04%	0.06%	518	394	-	-	0.08 %
Investment grade	I-4	>0.07 to ≤ 0.11	A1/A2/A3	A+/A/A-	4	0.07%	0.08%	1,727	1,827	2	-	0.04 %
Investment grade	I-5	>0.11 to ≤ 0.19	Baa1	BBB+	5	0.11%	0.13%	3,408	3,644	6	1	0.08 %
Investment grade	I-6	>0.19 to ≤ 0.32	Baa2	BBB	6	0.20%	0.22%	5,199	6,327	5	-	0.16 %
Investment grade	I-7	>0.32 to ≤ 0.54	Baa3	BBB-	7	0.32%	0.32%	8,801	9,951	14	-	0.24 %
Non-investment grade	S-1	>0.54 to ≤ 0.91	Ba1	BB+	8	0.60%	0.62%	8,047	7,780	11	1	0.52 %
Non-investment grade	S-2	>0.91 to ≤ 1.54	Ba2	BB	9	0.98%	1.06%	7,537	7,283	19	-	0.91 %
Non-investment grade	S-3	>1.54 to ≤ 2.74	Ba3	BB-	10	1.77%	1.75%	3,872	3,560	17	-	1.47 %
Non-investment grade	S-4	>2.74 to ≤ 5.16	B1	B+	11	2.74%	2.74%	3,224	2,812	18	-	2.20 %
Watchlist	P-1	>5.16 to ≤ 9.70	B2	B	12	6.33%	6.88%	554	420	19	-	7.04 %
Watchlist	P-2	>9.70 to ≤ 18.23	B3	B-	13	14.23%	14.01%	829	777	52	-	14.70 %
Watchlist	P-3	>18.23 to < 100.00	Caa/Ca	CCC/CC	14	20.14%	20.14%	142	181	6	-	20.63 %
Default	Default	100.00 (Default)	C	C/D	15	100.00%	100.00%	-	-	-	-	0.00 %
Sub-total					16			43,935	45,021	169	2	
Sovereign												
Investment grade	I-1	≤ 0.02	Aaa	AAA	17	0.00%	0.01%	32	28	-	-	0.00 %
Investment grade	I-2	>0.02 to ≤ 0.03	Aa1/Aa2/Aa3	AA+/AA/AA-	18	0.03%	0.02%	394	372	-	-	0.00 %
Investment grade	I-3	>0.03 to ≤ 0.07	A1/A2	A+/A	19	0.04%	0.04%	599	605	-	-	0.00 %
Investment grade	I-4	>0.07 to ≤ 0.11	A3	A-	20	0.07%	0.08%	521	503	1	-	0.02 %
Investment grade	I-5	>0.11 to ≤ 0.19	Baa1	BBB+	21	0.11%	0.12%	318	290	-	-	0.00 %
Investment grade	I-6	>0.19 to ≤ 0.32	Baa2	BBB	22	0.20%	0.21%	99	104	-	-	0.00 %
Investment grade	I-7	>0.32 to ≤ 0.54	Baa3	BBB-	23	0.32%	0.32%	102	89	-	-	0.00 %
Non-investment grade	S-1	>0.54 to ≤ 0.91	Ba1	BB+	24	0.61%	0.62%	62	68	-	-	0.00 %
Non-investment grade	S-2	>0.91 to ≤ 1.54	Ba2	BB	25	1.07%	1.06%	56	69	-	-	0.00 %
Non-investment grade	S-3	>1.54 to ≤ 2.74	Ba3	BB-	26	1.76%	1.74%	38	33	-	-	0.00 %
Non-investment grade	S-4	>2.74 to ≤ 5.16	B1	B+	27	2.74%	2.74%	44	58	-	-	0.00 %
Watchlist	P-1	>5.16 to ≤ 9.70	B2	B	28	6.29%	6.92%	10	1	-	-	0.00 %
Watchlist	P-2	>9.70 to ≤ 18.23	B3	B-	29	13.95%	13.95%	5	3	-	-	0.00 %
Watchlist	P-3	>18.23 to < 100.00	Caa/Ca	CCC/CC	30	0.00%	0.00%	-	-	-	-	0.00 %
Default	Default	100.00 (Default)	C	C/D	31	100.00%	100.00%	-	-	-	-	0.00 %
Sub-total					32			2,280	2,223	1	-	
Bank												
Investment grade	I-1	≤ 0.02	-	-	33	0.00%	0.00%	-	-	-	-	0.00 %
Investment grade	I-2	>0.02 to ≤ 0.03	Aaa/Aa1/Aa2/Aa3	AAA/AA+/AA/AA-	34	0.03%	0.03%	17	8	-	-	0.00 %
Investment grade	I-3	>0.03 to ≤ 0.07	A1/A2	A+/A	35	0.05%	0.05%	39	52	-	-	0.05 %
Investment grade	I-4	>0.07 to ≤ 0.11	A3	A-	36	0.07%	0.07%	71	58	-	-	0.00 %
Investment grade	I-5	>0.11 to ≤ 0.19	Baa1	BBB+	37	0.11%	0.11%	44	58	-	-	0.06 %
Investment grade	I-6	>0.19 to ≤ 0.32	Baa2	BBB	38	0.19%	0.19%	97	77	-	-	0.05 %
Investment grade	I-7	>0.32 to ≤ 0.54	Baa3	BBB-	39	0.32%	0.32%	74	74	-	-	0.07 %
Non-investment grade	S-1	>0.54 to ≤ 0.91	Ba1	BB+	40	0.55%	0.56%	43	28	-	-	0.09 %
Non-investment grade	S-2	>0.91 to ≤ 1.54	Ba2	BB	41	0.91%	0.95%	22	18	-	-	0.34 %
Non-investment grade	S-3	>1.54 to ≤ 2.74	Ba3	BB-	42	1.54%	1.57%	17	22	-	-	0.15 %
Non-investment grade	S-4	>2.74 to ≤ 5.16	B1	B+	43	2.74%	2.74%	22	21	-	-	0.31 %
Watchlist	P-1	>5.16 to ≤ 9.70	B2	B	44	0.00%	0.00%	1	-	-	-	0.00 %
Watchlist	P-2	>9.70 to ≤ 18.23	B3	B-	45	9.70%	9.70%	1	1	-	-	2.94 %
Watchlist	P-3	>18.23 to < 100.00	Caa/Ca	CCC/CC	46	0.00%	0.00%	-	-	-	-	0.00 %
Default	Default	100.00 (Default)	C	C/D	47	0.00%	0.00%	-	-	-	-	0.00 %
Sub-total					48			448	417	-	-	
Total (all wholesale portfolios)					49			46,663	47,661	170	2	

(1) The results shown in the table cover all models within these asset classes.

(2) Calculated as the obligor PD weighted by EAD.

(3) Obligor count for Wholesale portfolios is at the borrower level, excluding defaulted obligors.

(4) Calculated as the number of obligors having defaulted during the last 12-month period that were not funded at the end of the previous year.

(5) Wholesale portfolios use 16 year average of the annual default rate.

Advanced Internal Ratings Based (AIRB) Approach: The AIRB Approach is the most advanced of the range of options for determining the capital requirements for credit risk. This option allows banks to use their own internal models to measure credit risk capital requirements, subject to regulatory approval. OSFI has indicated that it expects the largest Canadian Banks to adopt the AIRB Approach.

Basel Capital Floor: A capital floor is measured based on the Basel Standardized Approach for credit risk and internal model for market risk, as prescribed by OSFI in CAR.

Central Counterparty (CCP): A clearing house that acts as an intermediary between counterparties for contracts traded in one or more financial markets. CCPs aim to mitigate risk through the use of margin requirements (both initial and variation) and a default management process, including a default fund and other resources. A CCP becomes a counterparty to trades with market participants through novation, an open offer system, or another legally binding arrangement. For the purposes of the capital framework, a CCP is a financial institution.

Common Equity Tier 1 (CET1): Primarily comprised of common shares, surplus resulting from the issue of instruments included in Common Equity Tier 1, retained earnings, and accumulated other comprehensive income. Regulatory CET1 deductions include: goodwill, intangible assets, pension assets, certain deferred tax asset and other items.

Credit valuation Adjustment (CVA): The adjustment that a bank must add as a capital charge to cover the risk of mark-to-market losses on the expected counterparty risk to OTC derivatives.

Drawn: The amount of funds invested or advanced to a customer.

Exposure at Default (EAD): EAD for on-balance sheet amounts represents outstandings, grossed up by provisions for credit losses on impaired loans and write-offs. EAD for undrawn and other off-balance sheet are estimated using Credit Conversion Factors (CCFs).

Loss Given Default (LGD): A measure of economic loss, the amount that may not be recovered in the event of a default, presented as a proportion of the exposure at default.

Probability of Default (PD): Represents the likelihood that a borrower or counterparty will go into default within a one-year time horizon.

Qualifying Central Counterparty (QCCP): An entity that is licensed to operate as a central counterparty (CCP) and is permitted by the appropriate regulator/overseer to operate as such with respect to the products offered.

Risk-Weighted Assets (RWA): A measure of a bank's exposures, weighted for their relative risk and calculated in accordance with OSFI's regulatory capital rules.

Securities Financing Transactions (SFT): Transactions such as repurchase agreements, reverse repurchase agreements, security lending and borrowing, which are also referred to as Repo-Style transactions, and wholesale margin lending transactions.

Standardized Approach (SA): An approach that allows banks to measure capital requirements by multiplying exposures by defined percentages based on the exposures product type and external credit rating (if applicable).

Total Loss Absorbing Capital (TLAC): The sum of Tier 1 capital, Tier 2 Capital, and Prescribed Shares and Liabilities ("Other TLAC Instruments") that are subject to conversion - in whole or in part - into common shares pursuant to subsection 39.2(2.3) of the Canada Deposit Insurance Corporation Act and meet all of the eligibility criteria set out in this guideline.

Undrawn Commitments: The unutilized authorizations associated with the drawn loans, including those which are unconditionally cancellable.