



**NATIONAL
BANK**

Supplementary Regulatory Capital and Pillar 3 Disclosure

Third Quarter 2021

(unaudited)

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This document is available via the Bank's web site: www.nbc.ca

Notes to users

- 1) This *Supplementary Regulatory Capital and Pillar 3 Disclosure* document is unaudited and should be read in conjunction with the *2020 Annual Report*. All amounts are in millions of Canadian dollars, unless otherwise indicated.
- 2) The information provided in this document is subject to the same level of internal review and internal control processes as the information provided by the Bank for its financial reporting.
- 3) Financial information is available through the *Report to Shareholders* for all quarters of 2021 and also in the document entitled *Supplementary Financial Information* which are available on the Bank's website at nbc.ca. Prior reporting periods are also available on the Bank's website.
- 4) For certain prescribed tables formats where row or column items have zero balances, such items have not been presented.

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Location of Pillar 3 Disclosure

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			The Bank continues to apply the market risk disclosures under Basel 2.5 framework as permitted by OSFI.

n.a. Not applicable

(1) Information available on the Bank's website at nbc.ca.

(2) These pages are included in the document entitled *Supplementary Financial Information – Third Quarter 2021*.

(3) These pages are included in the *Supplementary Regulatory Capital and Pillar 3 Disclosure – Fourth Quarter 2020*.

KM2 – Key Metrics – TLAC Requirements⁽¹⁾

(millions of Canadian dollars)

	2021			2020			
	Q3	Q2	Q1	Q4	Q3	Q2	Q1
	a			a			
1 Total loss-absorbing capacity (TLAC) available	26,748	25,576	24,602	22,511	21,584	20,172	19,943
1a TLAC available with transitional arrangements for ECL provisioning not applied	26,748	25,576	24,602	22,511	21,584	20,172	19,943
2 Total RWA at the level of the resolution group	103,139	98,705	97,183	94,808	94,814	92,755	86,206
3 TLAC ratio: TLAC as a percentage of RWA (row 1 / row 2) (%)	25.9%	25.9%	25.3%	23.7%	22.8%	21.7%	23.1%
3a TLAC ratio: TLAC as a percentage of RWA (row 1a / row 2) (%) with transitional arrangements for ECL provisioning not applied	25.9%	25.9%	25.3%	23.7%	22.8%	21.7%	23.1%
4 Leverage ratio exposure measure at the level of the resolution group	344,930	339,738	334,013	321,038	309,001	306,386	319,709
5 TLAC Leverage Ratio: TLAC as a percentage of leverage ratio exposure measure (row 1 / row 4) (%)	7.8%	7.5%	7.4%	7.0%	7.0%	6.6%	6.2%
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) (%)	7.8%	7.5%	7.4%	7.0%	7.0%	6.6%	6.2%
6a Does the subordination exemption in the antepenultimate paragraph of Section 11 of the FSB TLAC Term Sheet apply?	yes	yes	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	no	no
6c If the capped subordination exemption applies, the amount of funding issued that ranks pari passu with Excluded Liabilities and that is recognised as external TLAC, divided by funding issued that ranks pari passu with Excluded Liabilities and that would be recognised as external TLAC if no cap was applied (%)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

(1) Minimum TLAC ratios will be required starting November 1, 2021. Rows 1, 3 and 5 incorporate expected credit loss transitional relief provided by OSFI as announced on March 27, 2020. Rows 1a, 3a and 5a represent TLAC available with transitional arrangements for ECL provisioning not applied.

OV1 – Overview of RWA⁽¹⁾

(millions of Canadian dollars)

The following table provides an overview of total RWA forming the denominator of the risk-based capital requirements. Further breakdowns of RWA are presented in subsequent parts.

	Q3 2021	Q2 2021	Q1 2021	Q4 2020	Q3 2020	Q3 2021
	a	b	b	b	b	c
	RWA ⁽¹⁾	RWA ⁽¹⁾	RWA ⁽¹⁾	RWA ⁽¹⁾	RWA ⁽¹⁾	Minimum capital requirement ⁽²⁾
1 Credit risk (excluding counterparty credit risk)	71,820	69,232	68,566	67,348	66,240	5,745
2 Of which: standardised approach (SA)	14,788	14,192	14,150	14,229	13,630	1,183
3 Of which: foundation internal ratings-based (F-IRB) approach	–	–	–	–	–	–
4 Of which: supervisory slotting approach	–	–	–	–	–	–
5 Of which: advanced internal ratings-based (A-IRB) approach	57,032	55,040	54,416	53,119	52,610	4,562
6 Counterparty credit risk (CCR)	7,454	7,006	6,910	6,149	6,188	597
7 Of which: standardised approach for counterparty credit risk	5,676	5,204	5,256	4,702	4,704	454
8 Of which: internal model method (IMM)	–	–	–	–	–	–
9 Of which: other CCR	1,346	1,506	1,422	1,276	1,345	108
9a Of which: exposures to central counterparties	432	296	232	171	139	35
10 Credit valuation adjustment (CVA)	2,046	1,716	1,337	1,612	1,664	164
11 Equity positions under the simple risk weight approach⁽³⁾	1,016	1,151	1,111	1,060	1,074	81
12 Equity investments in funds – look-through approach	180	141	146	144	128	14
13 Equity investments in funds – mandate-based approach	–	–	–	–	–	–
14 Equity investments in funds – fall-back approach	–	–	–	–	–	–
15 Settlement risk	245	143	74	113	166	20
16 Securitization exposures in banking book	698	683	666	694	639	56
16a Of which: subject to the transitional arrangement	–	–	–	–	–	–
17 Of which: securitization IRB approach (SEC-IRBA)	189	171	153	172	176	15
18 Of which: securitization external ratings-based approach (SEC-ERBA), including internal assessment approach (IAA)	390	407	408	442	383	31
19 Of which: securitization standardised approach (SEC-SA)	119	105	105	80	80	10
20 Market risk	4,072	3,307	3,489	3,497	4,724	326
21 Of which: standardised approach (SA)	924	873	1,017	1,031	1,025	74
22 Of which: internal model approach (IMA)	3,148	2,434	2,472	2,466	3,699	252
23 Capital charge for switch between trading book and banking book	–	–	–	–	–	–
24 Operational risk	13,153	12,884	12,594	12,326	12,146	1,052
25 Amounts below the thresholds for deduction (subject to 250% risk weight)	2,455	2,442	2,290	1,865	1,845	196
26 Floor adjustment	–	–	–	–	–	–
27 Total (1+6+10+11+12+13+14+15+16+20+23+24+25+26)	103,139	98,705	97,183	94,808	94,814	8,251

(1) Risk weighted assets including the 1.06 scaling factor.

(2) The capital requirement is equal to 8% of risk weighted assets.

(3) Banking Book Equities that are not equity investments in funds (EIF) are treated under the materiality exemption and consequently reported in OV1 row 11 as the materiality exemption is available for AIRB banks.

L11 – Differences Between Accounting and Regulatory Scopes of Consolidation and Mapping of Financial Statements with Regulatory Risk Categories⁽¹⁾

(millions of Canadian dollars)

For the following tables columns a and b enable users to identify the differences between the scope of accounting consolidation and the scope of regulatory consolidation; and columns c to g break down how the amounts reported in banks' financial statements (rows) correspond to regulatory risk categories.

	Q3 2021						
	a	b	c	d	e	f	g
	Carrying values as reported in published financial statements	Carrying values under scope of regulatory consolidation	Subject to credit risk framework	Subject to counterparty credit risk framework	Subject to the securitization framework	Subject to the market risk framework	Carrying values of items ⁽²⁾ Not subject to capital requirements or subject to deduction from capital
Assets							
Cash and deposits with financial institutions	37,086	37,086	37,086	–	–	222	–
Securities							
At fair value through profit or loss	84,594	87,400	1,885	–	12	85,503	–
At fair value through other comprehensive income	9,610	19,712	19,708	–	4	–	–
At amortized cost	11,074	11,320	10,175	–	1,145	–	–
	105,278	118,432	31,768	–	1,161	85,503	–
Securities purchased under reverse repurchase agreements and securities borrowed	8,791	11,235	–	11,235	–	–	–
Loans and acceptances							
Residential mortgage	71,111	43,935	43,935	–	–	–	–
Personal	39,845	39,845	39,845	–	–	–	–
Credit card	2,035	2,035	906	–	1,071	–	58
Business and government	60,278	60,278	60,278	–	33	463	–
Customers' liability under acceptances	173,269	146,093	144,964	–	1,104	463	58
Allowances for credit losses	6,731	6,731	6,731	–	–	–	–
	(1,054)	(497)	(497)	–	–	–	–
	178,946	152,327	151,198	–	1,104	463	58
Other							
Derivative financial instruments ⁽³⁾	15,256	15,878	–	15,878	–	15,029	–
Investments in associates and joint ventures	338	478	478	–	–	–	–
Premises and equipment	1,181	1,181	1,181	–	–	–	–
Goodwill	1,404	1,500	–	–	–	–	1,500
Intangible assets	1,488	1,245	–	–	–	–	1,245
Other assets	4,272	4,271	3,800	–	–	–	471
	23,939	24,553	5,459	15,878	–	15,029	3,216
Total assets	354,040	343,633	225,511	27,113	2,265	101,217	3,274
Liabilities							
Deposits	236,544	236,544	–	–	–	13,761	222,783
Other							
Acceptances	6,731	6,731	–	–	–	–	6,731
Obligations related to securities sold short	18,654	18,654	–	–	–	18,654	–
Obligations related to securities sold under repurchase agreements and securities loaned	26,642	34,365	–	34,365	–	–	–
Derivative financial instruments ⁽³⁾	16,593	17,575	–	17,575	–	16,285	–
Liabilities related to transferred receivables	23,638	23,638	–	–	–	–	23,638
Other liabilities	5,890	5,890	–	–	–	–	5,890
	98,148	106,853	–	51,940	–	34,939	36,259
Subordinated debt	769	769	–	–	–	–	769
Total liabilities	335,461	344,166	–	51,940	–	48,700	259,811

(1) The basis of consolidation used for financial accounting purposes, described in Note 1 to the audited annual consolidated financial statements for the year ended October 31, 2020, may differ from regulatory purposes. The regulatory consolidation does not include structured entities, where significant risk has been transferred to third parties nor subsidiaries and associates engaged in insurance activities.

(2) The sum of amounts in columns c to g may not equal the amounts in column b as some items may be subject to regulatory capital charges in more than one risk category.

(3) Derivatives financial instruments are subject to both counterparty credit risk and market risk frameworks.

LI2 – Main Sources of Differences Between Regulatory Exposure Amounts and Carrying Values in Financial Statements

(millions of Canadian dollars)

The following table provides information on the main sources of differences (other than due to different scopes of consolidation which are shown in table LI1) between the financial statements' carrying value amounts and the exposure amounts used for regulatory purposes.

		Q3 2021				
		a	b	c	d	e
		Total	Items subject to ⁽¹⁾ :			
			Credit risk framework	Securitization framework	Counterparty credit risk framework	Market risk framework
1	Asset carrying value amount under scope of regulatory consolidation (as per template LI1)	340,359	225,511	2,265	27,113	101,217
2	Liabilities carrying value amount under scope of regulatory consolidation (as per template LI1)	84,355	–	–	51,940	48,700
3	Total net amount under regulatory scope of consolidation	256,004	225,511	2,265	(24,827)	52,517
4	<i>Gross-up for repo-style transactions⁽²⁾</i>	68,730	–	–	68,730	–
5	<i>Potential future exposures (PFE)⁽³⁾</i>	13,639	–	–	13,639	–
6	<i>Off-balance sheet amounts⁽⁴⁾</i>	195,008	59,657	3,772	101,333	–
7	<i>Differences due to different netting rules, other than those already included in row 2 including collateral</i>	7,619	–	–	7,619	–
8	VaR amounts for Securities Financing Transactions (SFTs)	9,030	–	–	9,030	–
9	<i>Differences in valuations</i>	–	–	–	–	–
10	<i>Collateral for SFTs</i>	(142,899)	–	–	(142,899)	–
11	Exposure amounts considered for regulatory purposes⁽⁵⁾	407,131	285,168	6,037	32,625	52,517

(1) The sum of amounts in columns b to e may not equal the amounts in column a as some items may be subject to regulatory capital charges in more than one risk category.

(2) Is equal to two times the Obligations related to securities sold under repurchase agreements and securities loaned subject to counterparty credit risk framework from table LI1.

(3) The PFE amount is presented after the alpha of 1.4.

(4) Original off-balance sheet amounts are presented in column a while in columns b through e exposures are after application of credit conversion factors (CCFs).

(5) The aggregate amount considered as a starting point of the RWA calculation.

CC1 – Composition of Regulatory Capital

(millions of Canadian dollars)

		2021			2020				
		Q3	Q2	Q1	Q4	Q3	Q2	Q1	
		Reference ⁽¹⁾							
Common Equity Tier 1 capital: instruments and reserves									
1	Directly issued qualifying common share capital plus related contributed surplus ⁽²⁾	a + a'	3,188	3,171	3,139	3,104	3,087	3,074	3,072
2	Retained earnings	b	12,492	11,704	10,998	10,444	10,150	10,058	9,556
3	Accumulated other comprehensive income and other reserves	c	(151)	(169)	(167)	(118)	(177)	(137)	(7)
4	Directly issued capital subject to phase out from CET1 (only applicable to non-joint stock companies)		-	-	-	-	-	-	-
5	Common share capital issued by subsidiaries and held by third parties (amount allowed in group CET1)	d	-	-	-	-	-	-	-
6	Common Equity Tier 1 capital before regulatory adjustments		15,529	14,706	13,970	13,430	13,060	12,995	12,621
Regulatory adjustments to Common Equity Tier 1 capital									
7	Prudential valuation adjustments		-	-	-	-	-	-	-
8	Goodwill (net of related tax liability)	e - w	(1,500)	(1,497)	(1,508)	(1,515)	(1,518)	(1,524)	(1,511)
9	Intangible assets other than mortgage-servicing rights	f - x	(1,245)	(1,240)	(1,222)	(1,213)	(1,239)	(1,182)	(1,160)
10	Deferred tax assets excluding those arising from temporary differences (net of related tax liability)	g	(39)	(42)	(41)	(41)	(32)	(31)	-
11	Accumulated other comprehensive income related to cash flow hedges	h	115	114	249	283	311	313	47
12	Shortfall of total provisions to expected losses	i	-	-	-	-	-	-	-
13	Securitisation gain on sale		-	-	-	-	-	-	-
14	Gains (losses) due to changes in own credit risk on fair valued liabilities	j	56	117	140	59	41	(88)	56
15	Defined benefit pension plan assets (net of related tax liability)	k - y	(471)	(305)	(196)	(79)	(15)	(118)	(7)
16	Investments in own shares (if not already netted off contributed surplus on reported balance sheet)		-	-	-	-	-	-	-
17	Reciprocal cross holdings in common equity		-	-	-	-	-	-	-
18	Non-significant investments in capital of banking, financial and insurance entities, net of eligible short positions (amount above 10% threshold)	l	-	-	-	-	-	-	-
19	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)	m	-	-	-	-	-	-	-
20	Mortgage servicing rights (amount above 10% threshold)		-	-	-	-	-	-	-
21	Deferred tax assets arising from temporary differences (amount above 10% threshold, net of related tax liability)		-	-	-	-	-	-	-
22	Amount exceeding the 15% threshold		-	-	-	-	-	-	-
23	of which: significant investments in the common stock of financials	n	-	-	-	-	-	-	-
24	of which: mortgage servicing rights		-	-	-	-	-	-	-
25	of which: deferred tax assets arising from temporary differences	o	-	-	-	-	-	-	-
26	Other deductions or regulatory adjustments to CET1 as determined by OSFI (including regulatory adjustments in respect of own use property)		129	144	171	243	232	203	-
27	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		(2,955)	(2,709)	(2,407)	(2,263)	(2,220)	(2,427)	(2,575)
29	Common Equity Tier 1 capital (CET1)		12,574	11,997	11,563	11,167	10,840	10,568	10,046
29a	CET1 with transitional arrangements for ECL provisioning not applied		12,445	11,853	11,392	10,924	10,608	10,365	
Additional Tier 1 capital: instruments									
30	Directly issued qualifying Additional Tier 1 instruments plus related contributed surplus ⁽²⁾		2,650	3,050	2,950	2,950	2,450	2,450	2,450
31	of which: classified as equity under applicable accounting standards	v + z	2,650	3,050	2,950	2,950	2,450	2,450	2,450
32	of which: classified as liabilities under applicable accounting standards	p	-	-	-	-	-	-	-
33	Directly issued capital instruments subject to phase out from Additional Tier 1 ⁽²⁾	v' + z' + p'	-	-	-	-	-	350	350
34	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)	q	-	-	-	-	-	-	-
35	of which: instruments issued by subsidiaries subject to phase out		-	-	-	-	-	-	-
36	Additional Tier 1 capital before regulatory adjustments		2,650	3,050	2,950	2,950	2,450	2,800	2,800

(1) Reconciliation with Balance Sheet is presented on pages 12 and 13.

(2) A complete list of capital instruments and their main features is now available on the Bank's website at nbc.ca under *Investor Relations > Capital & Debt Information > Main Features of Regulatory Capital Instruments*.

CC1 – Composition of Regulatory Capital (continued)

(millions of Canadian dollars)

		2021			2020			
		Q3	Q2	Q1	Q4	Q3	Q2	Q1
		Reference ⁽¹⁾						
Additional Tier 1 capital: regulatory adjustments								
37	Investments in own Additional Tier 1 instruments	(2)	(4)	–	(3)	–	–	–
38	Reciprocal cross holdings in Additional Tier 1 instruments	–	–	–	–	–	–	–
39	Non-significant investments in the capital of banking, financial and insurance entities, net of eligible short positions (amount above 10% threshold)	–	–	–	–	–	–	–
40	Significant investments in the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation, net of eligible short positions	–	–	–	–	–	–	–
41	Other deductions from Tier 1 capital as determined by OSFI	(1)	(1)	(1)	(2)	–	–	–
41a	of which: Reverse mortgages	(1)	(1)	(1)	(2)	–	–	–
42	Regulatory adjustments applied to Additional Tier 1 due to insufficient Tier 2 to cover deductions	–	–	–	–	–	–	–
43	Total regulatory adjustments to Additional Tier 1 capital	(3)	(5)	(1)	(5)	–	–	–
44	Additional Tier 1 capital (AT1)	2,647	3,045	2,949	2,945	2,450	2,800	2,800
45	Tier 1 capital (T1 = CET1 + AT1)	15,221	15,042	14,512	14,112	13,290	13,368	12,846
45a	Tier 1 Capital with transitional arrangements for ECL provisioning not applied	15,092	14,898	14,341	13,869	13,058	13,165	
Tier 2 capital: instruments and allowances								
46	Directly issued qualifying Tier 2 instruments plus related contributed surplus ⁽²⁾	r	750	750	750	750	750	750
47	Directly issued capital instruments subject to phase out from Tier 2 ⁽²⁾	r'	9	9	9	9	10	9
48	Tier 2 instruments (and CET1 and AT1 instruments not included in rows 5 or 34) issued by subsidiaries and held by third parties (amount allowed in group Tier 2)	s	–	–	–	–	–	–
49	of which: instruments issued by subsidiaries subject to phase out		–	–	–	–	–	–
50	Allowances for credit losses	t	368	397	402	313	308	205
51	Tier 2 capital before regulatory adjustments		1,127	1,156	1,161	1,076	1,072	964
Tier 2 capital: regulatory adjustments								
52	Investments in own Tier 2 instruments		–	–	–	–	–	–
53	Reciprocal cross holdings in Tier 2 instruments and Other TLAC-eligible instruments		–	–	–	–	–	–
54	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)		(45)	(45)	(84)	(21)	(26)	(66)
54a	[Reporting row for G-SIBs and D-SIBs only] 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 no longer meets the conditions		(45)	(45)	(84)	(21)	(26)	(66)
55	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		–	–	–	–	–	–
56	Other deductions from Tier 2 capital		–	–	–	–	–	–
57	Total regulatory adjustments to Tier 2 capital		(45)	(45)	(84)	(21)	(26)	(66)
58	Tier 2 capital (T2)		1,082	1,111	1,077	1,055	1,046	909
59	Total capital (TC = T1 + T2)		16,303	16,153	15,589	15,167	14,336	14,370
59a	Total Capital with transitional arrangements for ECL provisioning not applied		16,303	16,153	15,589	15,167	14,336	14,370

(1) Reconciliation with Balance Sheet is presented on pages 12 and 13.

(2) A complete list of capital instruments and their main features is now available on the Bank's website at nbc.ca under *Investor Relations > Capital & Debt Information > Main Features of Regulatory Capital Instruments*.

CC1 – Composition of Regulatory Capital (continued)

(millions of Canadian dollars)

		2021			2020			
		Q3	Q2	Q1	Q4	Q3	Q2	Q1
60	Total risk-weighted assets	103,139	98,705	97,183	94,808	94,814	92,755	86,206
60a	Common Equity Tier 1 Capital RWA (CET1)	103,139	98,705	97,183	94,808	94,814	92,755	86,206
60b	Tier 1 Capital RWA	103,139	98,705	97,183	94,808	94,814	92,755	86,206
60c	Total capital RWA	103,139	98,705	97,183	94,808	94,814	92,755	86,206
Capital ratios								
61	Common Equity Tier 1 (as a percentage of risk weighted assets)	12.2%	12.2%	11.9%	11.8%	11.4%	11.4%	11.7%
61a	CET1 Ratio with transitional arrangements for ECL provisioning not applied	12.1%	12.0%	11.7%	11.5%	11.2%	11.2%	
62	Tier 1 (as a percentage of risk weighted assets)	14.8%	15.2%	14.9%	14.9%	14.0%	14.4%	14.9%
62a	Tier 1 Capital Ratio with transitional arrangements for ECL provisioning not applied	14.6%	15.1%	14.8%	14.6%	13.8%	14.2%	
63	Total capital (as a percentage of risk weighted assets)	15.8%	16.4%	16.0%	16.0%	15.1%	15.5%	16.0%
63a	Total Capital Ratio with transitional arrangements for ECL provisioning not applied	15.8%	16.4%	16.0%	16.0%	15.1%	15.5%	
64	Institution-specific buffer requirement (minimum CET1 requirement plus capital conservation buffer plus G-SIB buffer requirement plus D-SIB buffer requirement expressed as a percentage of risk weighted assets)	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
65	of which: capital conservation buffer requirement	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
66	of which: bank-specific countercyclical buffer	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
67	of which: G-SIB buffer requirement	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
67a	of which: D-SIBs buffer requirement	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
68	Common Equity Tier 1 available to meet buffers (as a percentage of risk weighted assets)	12.2%	12.2%	11.9%	11.8%	11.4%	11.4%	11.7%
OSFI target (minimum + capital conservation buffer + D-SIB buffer)⁽¹⁾								
69	Common Equity Tier 1 all-in target ratio	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
70	Tier 1 capital all-in target ratio	9.5%	9.5%	9.5%	9.5%	9.5%	9.5%	9.5%
71	Total capital all-in target ratio	11.5%	11.5%	11.5%	11.5%	11.5%	11.5%	11.5%
Amounts below the thresholds for deduction (before risk weighting)								
72	Non-significant investments in the capital and other TLAC-eligible instruments of other financial entities	696	695	435	365	346	390	436
73	Significant investments in the common stock of financials	381	369	353	337	377	354	340
74	Mortgage servicing rights (net of related tax liability)	–	–	–	–	–	–	–
75	Deferred tax assets arising from temporary differences (net of related tax liabilities)	601	608	563	409	361	114	204
Applicable caps on the inclusion of allowances in Tier 2								
76	Allowance eligible for inclusion in Tier 2 in respect of exposures subject to standardised approach (prior to application of cap)	131	134	137	122	118	123	92
77	Cap on inclusion of allowances in Tier 2 under standardised approach	177	167	167	166	159	159	139
78	Allowance eligible for inclusion in Tier 2 in respect of exposures subject to internal ratings-based approach (IRB) (prior to application of cap)	237	263	265	195	195	185	113
79	Cap on inclusion of allowances in Tier 2 under internal ratings-based approach	431	415	407	394	392	384	354
Capital instruments subject to phase-out arrangements (only applicable between January 1, 2013 and January 1, 2022)								
80	Current cap on CET1 instruments subject to phase out arrangements	–	–	–	–	–	–	–
81	Amount excluded from CET1 due to cap (excess over cap after redemptions and maturities)	–	–	–	–	–	–	–
82	Current cap on AT1 instruments subject to phase out arrangements	194	194	194	387	387	387	387
83	Amount excluded from AT1 due to cap (excess over cap after redemptions and maturities)	–	–	–	–	–	–	–
84	Current cap on T2 instruments subject to phase out arrangements	238	238	238	476	476	476	476
85	Amount excluded from T2 due to cap (excess over cap after redemptions and maturities)	–	–	–	–	–	–	–

(1) Do not include the domestic stability buffer.

CC2 – Reconciliation of Regulatory Capital to Balance Sheet⁽¹⁾

(millions of Canadian dollars)

	Q3 2021		
	Cross - Reference to Definition of Capital ⁽²⁾	As in Report to Shareholders	Under scope of regulatory consolidation
Assets			
Cash and deposits with financial institutions		37,086	37,086
Securities		105,278	118,432
Non-significant investments in capital of other financial institutions reflected in regulatory capital	l	–	–
Other securities		105,278	118,432
Assets purchased under reverse repurchase agreements and securities borrowed		8,791	11,235
Loans			
Residential mortgage		71,111	43,935
Personal		39,845	39,845
Credit card		2,035	2,035
Business and government		60,278	60,278
Customers' liability under acceptances		6,731	6,731
Less: Allowances for credit losses		(1,054)	(497)
Allowance reflected in Tier 2 regulatory capital	t	–	(497)
Shortfall of allowances to expected loss	i	–	–
Allowances not reflected in regulatory capital		–	(557)
Other assets			
Derivative financial instruments		15,256	15,878
Other		8,683	8,675
Goodwill	e	1,404	1,500
Intangibles assets	f	2,669	1,488
Deferred tax assets		494	770
Deferred tax assets excluding those arising from temporary differences	g	–	39
Deferred tax assets arising from temporary differences exceeding regulatory thresholds	o	–	–
Deferred tax assets - realize through loss carrybacks		–	130
Deferred tax assets - other temporary differences		–	601
Defined-benefit pension fund net assets	k	–	640
Significant investments in other financial institutions		–	381
Significant investments exceeding regulatory thresholds	m + n	–	–
Significant investments not exceeding regulatory thresholds		–	381
Other		4,116	3,896
Total assets		354,040	343,633

(1) The basis of consolidation used for financial accounting purposes, described in Note 1 to the audited annual consolidated financial statements for the year ended October 31, 2020, may differ from regulatory purposes. The regulatory consolidation does not include structured entities, where significant risk has been transferred to third parties nor subsidiaries and associates engaged in insurance activities. Total assets of National Bank Life Insurance Company and other insurance subsidiaries are \$223 million and \$15 million respectively.

(2) The references identify balance sheet components which are used in calculation of regulatory capital on pages 9 to 11.

CC2 – Reconciliation of Regulatory Capital to Balance Sheet⁽¹⁾ (continued)

(millions of Canadian dollars)

	Q3 2021		
	Cross - Reference to Definition of Capital ⁽²⁾	As in Report to Shareholders	Under scope of regulatory consolidation
Liabilities			
Deposits		236,544	236,544
Derivatives financial instruments		16,593	17,575
Other liabilities		81,555	89,278
Gains and losses due to changes in own credit risk on fair value liabilities	j	–	(56)
Deferred tax liabilities		21	21
Related to goodwill	w	–	–
Related to intangibles	x	–	243
Related to pensions	y	–	169
Other deferred tax liabilities		–	(391)
Other		81,534	89,313
Subordinated debt		769	769
Regulatory capital amortization of maturing debentures		–	–
Fair value adjustment and unamortized issuance cost		–	10
Subordinated debentures not allowed for regulatory capital	s	–	–
Subordinated debentures used for regulatory capital		–	759
Allowed for inclusion in Tier 2 capital	r	–	750
Subject to phase out	r'	–	9
Total liabilities		335,461	344,166
Equity Attributable to Shareholders and holders of other equity instruments		18,579	18,179
Common shares	a	3,141	3,141
Contributed surplus	a'	47	47
Retained earnings	b	12,492	12,492
Accumulated Other Comprehensive Income (loss)	c	(151)	(151)
Net gains (losses) on instruments designated as cash flow hedges	h	(115)	(115)
Net foreign currency translation adjustments		(117)	(117)
Other		81	81
Preferred shares and other equity instruments		3,050	2,650
of which: are qualifying	v	–	2,650
of which: are subject to phase out	v'	–	–
Non-controlling interest		–	–
Innovative instruments		–	–
of which: are qualifying		–	–
of which: are subject to phase out	p'	–	–
Other		–	–
Portion allowed for inclusion into CET1	d	–	–
Portion allowed for inclusion into Tier 1 capital	q	–	–
Portion allowed for inclusion into Tier 2 capital	s	–	–
Portion not allowed for regulatory capital		–	–
Total Equity		18,579	18,179
Total Liabilities and Equity		354,040	362,345

(1) The basis of consolidation used for financial accounting purposes, described in Note 1 to the audited consolidated financial statements for the year ended October 31, 2020, may differ from regulatory purposes. The regulatory consolidation does not include structured entities, where significant risk has been transferred to third parties nor subsidiaries and associates engaged in insurance activities. Total assets of National Bank Life Insurance Company and other insurance subsidiaries are \$223 million and \$15 million respectively.

(2) The references identify balance sheet components which are used in calculation of regulatory capital on pages 9 to 11.

TLAC1 – TLAC Composition⁽¹⁾

(millions of Canadian dollars)

		2021			2020			
		Q3	Q2	Q1	Q4	Q3	Q2	Q1
Regulatory capital elements of TLAC and adjustments								
1	Common Equity Tier 1 capital (CET1)	12,574	11,997	11,563	11,167	10,840	10,568	10,046
2	Additional Tier 1 capital (AT1) before TLAC adjustments	2,650	3,050	2,950	2,950	2,450	2,800	2,800
3	AT1 ineligible as TLAC as issued out of subsidiaries to third parties ⁽²⁾	-	-	-	-	-	-	-
4	Other adjustments	(3)	(5)	(1)	(5)	-	-	-
5	AT1 instruments eligible under the TLAC framework	2,647	3,045	2,949	2,945	2,450	2,800	2,800
6	Tier 2 capital (T2) before TLAC adjustments	1,127	1,156	1,161	1,076	1,072	1,068	964
7	Amortised portion of T2 instruments where remaining maturity > 1 year	-	-	-	-	-	-	-
8	T2 capital ineligible as TLAC as issued out of subsidiaries to third parties ⁽²⁾	-	-	-	-	-	-	-
9	Other adjustments	(45)	(45)	(84)	(21)	(26)	(66)	(55)
10	T2 instruments eligible under the TLAC framework	1,082	1,111	1,077	1,055	1,046	1,002	909
11	TLAC arising from regulatory capital	16,303	16,153	15,589	15,167	14,336	14,370	13,755
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	10,480	9,442	9,033	7,350	7,281	5,882	6,259
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 recapitalise a G-SIB in resolution	-	-	-	-	-	-	-
17	TLAC arising from non-regulatory capital instruments before adjustments	10,480	9,442	9,033	7,350	7,281	5,882	6,259
Non-regulatory capital elements of TLAC: adjustments								
18	TLAC before deductions	26,783	25,595	24,622	22,517	21,617	20,252	20,014
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	(35)	(19)	(20)	(6)	(33)	(80)	(71)
21	Other adjustments to TLAC	-	-	-	-	-	-	-
22	TLAC available after deductions	26,748	25,576	24,602	22,511	21,584	20,172	19,943
Risk-weighted assets and leverage exposure measure for TLAC purposes								
23	Total risk-weighted assets adjusted as permitted under the TLAC regime	103,139	98,705	97,183	94,808	94,814	92,755	86,206
24	Leverage exposure measure	344,930	339,738	334,013	321,038	309,001	306,386	319,709
TLAC ratios and buffers								
25	TLAC ratio (as a percentage of risk-weighted assets adjusted as permitted under the TLAC regime)	25.9%	25.9%	25.3%	23.7%	22.8%	21.7%	23.1%
26	TLAC Leverage ratio (as a percentage of leverage exposure)	7.8%	7.5%	7.4%	7.0%	7.0%	6.6%	6.2%
27	CET1 (as a percentage of risk-weighted assets) available after meeting the resolution group's minimum capital and TLAC requirements	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
28	Institution-specific buffer requirement (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%	3.5%	3.5%
29	Of which: capital conservation buffer	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
30	Of which: bank specific countercyclical buffer	-	-	-	-	-	-	-
31	Of which: D-SIB \ G-SIB buffer	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%

(1) Minimum TLAC ratios will be required starting November 1, 2021.

(2) Additional Tier 1 capital and Tier 2 capital issued out of subsidiaries to third parties will be eligible as TLAC up to January 1, 2022.

TLAC3 – Creditor Ranking at Legal Entity Level⁽¹⁾

(millions of Canadian dollars)

		Q3 2021						Q2 2021					
		Creditor ranking					Sum (1 to 5)	Creditor ranking					Sum (1 to 5)
		1	2	3	4 ⁽²⁾	5 ⁽³⁾		1	2	3	4 ⁽²⁾	5 ⁽³⁾	
		Most junior			Most senior			Most junior			Most senior		
1	Description of creditor ranking	Common shares	Preferred shares	Subordinated debt	Bail-in debt	Other liabilities excluding Bail-in debt		Common shares	Preferred shares	Subordinated debt	Bail-in debt	Other liabilities excluding Bail-in debt	
2	Total capital and liabilities net of credit risk mitigation	3,141	2,650	759	10,776	–	17,326	3,129	3,050	759	9,738	–	16,676
3	Subset of row 2 that are excluded liabilities	–	–	–	331	–	331	–	–	–	315	–	315
4	Total capital and liabilities less excluded liabilities (row 2 minus row 3)	3,141	2,650	759	10,445	–	16,995	3,129	3,050	759	9,423	–	16,361
5	Subset of row 4 that are potentially eligible as TLAC	3,141	2,650	759	10,445	–	16,995	3,129	3,050	759	9,423	–	16,361
6	Subset of row 5 with 1 year ≤ residual maturity < 2 years	–	–	–	2,913	–	2,913	–	–	–	2,312	–	2,312
7	Subset of row 5 with 2 years ≤ residual maturity < 5 years	–	–	–	5,112	–	5,112	–	–	–	4,893	–	4,893
8	Subset of row 5 with 5 years ≤ residual maturity < 10 years	–	–	750	1,012	–	1,762	–	–	750	831	–	1,581
9	Subset of row 5 residual maturity ≥ 10 years, but excluding perpetual securities	–	–	9	1,408	–	1,417	–	–	9	1,387	–	1,396
10	Subset of row 5 that is perpetual securities	3,141	2,650	–	–	–	5,791	3,129	3,050	–	–	–	6,179

		Q1 2021						Q4 2020					
		Creditor ranking					Sum (1 to 5)	Creditor ranking					Sum (1 to 5)
		1	2	3	4 ⁽²⁾	5 ⁽³⁾		1	2	3	4 ⁽²⁾	5 ⁽³⁾	
		Most junior			Most senior			Most junior			Most senior		
1	Description of creditor ranking	Common shares	Preferred shares	Subordinated debt	Bail-in debt	Other liabilities excluding Bail-in debt		Common shares	Preferred shares	Subordinated debt	Bail-in debt	Other liabilities excluding Bail-in debt	
2	Total capital and liabilities net of credit risk mitigation	3,094	2,950	759	10,031	–	16,834	3,057	2,950	759	8,369	–	15,135
3	Subset of row 2 that are excluded liabilities	–	–	–	1,018	–	1,018	–	–	–	1,025	–	1,025
4	Total capital and liabilities less excluded liabilities (row 2 minus row 3)	3,094	2,950	759	9,013	–	15,816	3,057	2,950	759	7,344	–	14,110
5	Subset of row 4 that are potentially eligible as TLAC	3,094	2,950	759	9,013	–	15,816	3,057	2,950	759	7,344	–	14,110
6	Subset of row 5 with 1 year ≤ residual maturity < 2 years	–	–	–	952	–	952	–	–	–	999	–	999
7	Subset of row 5 with 2 years ≤ residual maturity < 5 years	–	–	–	5,812	–	5,812	–	–	–	4,952	–	4,952
8	Subset of row 5 with 5 years ≤ residual maturity < 10 years	–	–	750	805	–	1,555	–	–	750	774	–	1,524
9	Subset of row 5 residual maturity ≥ 10 years, but excluding perpetual securities	–	–	9	1,444	–	1,453	–	–	9	619	–	628
10	Subset of row 5 that is perpetual securities	3,094	2,950	–	–	–	6,044	3,057	2,950	–	–	–	6,007

(1) This table provides creditors of the legal entity National Bank of Canada with information regarding their ranking in its liabilities structure.

(2) Bail-in Debt is reflected as subordinated to Other Liabilities. Under the Bail-in Regime, Bail-in Debt which would ordinarily rank equally to Other Liabilities in liquidation, is subject to conversion under statutory resolution powers whereas Other Liabilities are not subject to such conversion.

(3) OSFI doesn't require to complete this column at this time.

LR1 – Summary Comparison of Accounting Assets vs Leverage Ratio Exposure Measure

(millions of Canadian dollars)

	2021			2020			
	Q3	Q2	Q1	Q4	Q3	Q2	Q1
Accounting assets vs. leverage ratio exposure							
1 Total consolidated assets as per published financial statements	354,040	350,742	343,637	331,625	322,453	316,950	289,191
2 Adjustment for investments in banking, financial, insurance or commercial entities that are consolidated for accounting purposes but outside the scope of regulatory consolidation	22	20	14	8	55	34	25
3 Adjustment for securitized exposures that meet the operational requirements for the recognition of risk transference ⁽¹⁾	(65)	(65)	(65)	(65)	(65)	(37)	(898)
4 Adjustment for fiduciary assets recognised on the balance sheet pursuant to the operative accounting framework but excluded from the leverage ratio exposure measure	–	–	–	–	–	–	–
5 Adjustment for derivative financial instruments ⁽²⁾	3,420	5	3,859	2,224	1,755	(64)	6,458
6 Adjustment for securities financing transactions (i.e. repos and similar secured lending) ⁽²⁾	4,752	5,157	3,754	2,174	3,562	1,857	4,754
7 Adjustment for off-balance sheet items (i.e. conversion to credit equivalent amounts of off-balance sheet exposures)	30,357	29,568	27,716	27,365	25,938	24,833	24,555
8 Other adjustments	(47,596)	(45,689)	(44,902)	(42,293)	(44,697)	(37,187)	(4,376)
9 Leverage Ratio Exposure	344,930	339,738	334,013	321,038	309,001	306,386	319,709

(1) OSFI's October 2018 Leverage Requirements Guideline now allows for the exclusion of securitized exposures that meet the operational requirements for risk transference.

(2) Adjustments due to differences between accounting and regulatory netting standards.

LR2 – Leverage Ratio Common Disclosure Template

(millions of Canadian dollars)

		2021			2020			
		Q3	Q2	Q1	Q4	Q3	Q2	Q1
Leverage ratio common disclosure								
On-balance sheet exposures								
1	On-balance sheet items (excluding derivatives, SFTs and grandfathered securitization exposures but including collateral)	289,192	285,293	281,196	267,262	257,390	252,666	267,659
2	Gross-up for derivatives collateral provided where deducted from balance sheet assets pursuant to the operative accounting framework	-	-	-	-	-	-	-
3	(Deductions of receivables assets for cash variation margin provided in derivative transactions)	(3,696)	(3,946)	(3,088)	(3,350)	(3,329)	(3,509)	(1,740)
4	(Asset amounts deducted in determining Basel III Tier 1 capital)	(3,143)	(2,978)	(2,721)	(2,570)	(2,493)	(2,855)	(2,631)
5	Total on-balance sheet exposures (excluding derivatives and SFTs) (sum of rows 1 to 4)	282,353	278,369	275,387	261,342	251,568	246,302	263,288
Derivative exposures								
6	Replacement cost associated with all derivative transactions (where applicable net of eligible cash variation margin and/or with bilateral netting)	5,898	3,998	4,811	4,757	5,433	6,373	3,408
7	Add-on amounts for PFE associated with all derivative transactions	12,767	11,278	11,913	10,821	9,769	9,290	11,995
8	(Exempted CCP leg of client-cleared trade exposures)	-	-	-	-	-	-	-
9	Adjusted effective notional amount of written credit derivatives	12	12	13	67	20	21	20
10	(Adjusted effective notional offsets and add-on deductions for written credit derivatives)	-	-	-	-	-	-	-
11	Total derivative exposures (sum of rows 6 to 10)	18,677	15,288	16,737	15,645	15,222	15,684	15,423
Securities financing transaction exposures								
12	Gross SFT assets (with no recognition of netting), after adjusting for sale accounting transactions	8,791	11,356	10,419	14,512	12,711	17,710	11,689
13	(Netted amounts of cash payables and cash receivables of gross SFT assets)	(600)	(752)	(1,272)	(1,725)	(1,491)	(2,301)	(520)
14	CCR exposure for SFTs assets	5,352	5,909	5,026	3,899	5,053	4,158	5,274
15	Agent transaction exposures	-	-	-	-	-	-	-
16	Total securities financing transaction exposures (sum of rows 12 to 15)	13,543	16,513	14,173	16,686	16,273	19,567	16,443
Other off-balance sheet exposures								
17	Off-balance sheet exposure at gross notional amount	92,825	90,948	87,397	85,644	82,951	80,508	76,692
18	(Adjustments for conversion to credit equivalent amounts)	(62,468)	(61,380)	(59,681)	(58,279)	(57,013)	(55,675)	(52,137)
19	Off-balance sheet items (sum of rows 17 and 18)	30,357	29,568	27,716	27,365	25,938	24,833	24,555
Capital and Total Exposures								
20	Tier 1 capital	15,221	15,042	14,512	14,112	13,290	13,368	12,846
20a	Tier 1 Capital with transitional arrangements for ECL provisioning not applied	15,092	14,898	14,341	13,869	13,058	13,165	
21	Total Exposures (sum of rows 5, 11, 16 and 19)	344,930	339,738	334,013	321,038	309,001	306,386	319,709
Leverage Ratio								
22	Basel III leverage ratio	4.4%	4.4%	4.3%	4.4%	4.3%	4.4%	4.0%
22a	Basel III leverage ratio with transitional arrangements for ECL provisioning not applied	4.4%	4.4%	4.3%	4.3%	4.2%	4.3%	

CR1 – Credit Quality of Assets⁽¹⁾

(millions of Canadian dollars)

The following tables provide a comprehensive picture of the credit quality of a bank's (on- and off-balance sheet) assets.

		Q3 2021							Q2 2021						
		a	b	c	d	e	f	g	a	b	c	d	e	f	g
		Gross carrying values ⁽²⁾ of		Allowances for credit losses ⁽⁴⁾	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)	Gross carrying values ⁽²⁾ of		Allowances for credit losses ⁽⁴⁾	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)
		Default exposures ⁽³⁾	Non-default exposures		Allocated in regulatory category of Specific	Allocated in regulatory category of General			Default exposures ⁽³⁾	Non-default exposures		Allocated in regulatory category of Specific	Allocated in regulatory category of General		
1	Loans ⁽⁵⁾	684	186,622	1,059	23	11	1,025	186,247	713	179,070	1,119	24	48	1,047	178,664
2	Debt Securities	–	30,523	3	–	1	2	30,520	–	30,352	2	–	1	1	30,350
3	Off-balance-sheet commitments ⁽⁶⁾	14	89,759	177	–	3	174	89,596	18	87,788	188	–	3	185	87,618
4	Total	698	306,904	1,239	23	15	1,201	306,363	731	297,210	1,309	24	52	1,233	296,632

		Q1 2021							Q4 2020						
		a	b	c	d	e	f	g	a	b	c	d	e	f	g
		Gross carrying values ⁽²⁾ of		Allowances for credit losses ⁽⁴⁾	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)	Gross carrying values ⁽²⁾ of		Allowances for credit losses ⁽⁴⁾	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)
		Default exposures ⁽³⁾	Non-default exposures		Allocated in regulatory category of Specific	Allocated in regulatory category of General			Default exposures ⁽³⁾	Non-default exposures		Allocated in regulatory category of Specific	Allocated in regulatory category of General		
1	Loans ⁽⁵⁾	734	170,991	1,155	23	58	1,074	170,570	782	164,083	1,163	26	57	1,080	163,702
2	Debt Securities	–	32,418	3	–	1	2	32,415	–	33,237	4	–	1	3	33,233
3	Off-balance-sheet commitments ⁽⁶⁾	18	84,170	196	–	4	192	83,992	17	82,314	176	–	4	172	82,155
4	Total	752	287,579	1,354	23	63	1,268	286,977	799	279,634	1,343	26	62	1,255	279,090

(1) Excluding insurances subsidiaries and securitization exposures.

(2) Gross carrying values of on- and off-balance sheet items that give rise to a credit risk exposure according to the Basel framework (gross of CCF or CRM techniques).

(3) Definition of default as per the Capital Adequacy Requirements (CAR) guideline.

(4) Represent allowances for credit losses according to IFRS 9.

(5) Including deposits with financial institutions.

(6) For completeness purposes, revocable commitments are included.

CR2 – Changes in Stock of Defaulted Loans and Debt Securities

(millions of Canadian dollars)

The following table identifies the change in a bank's stock of defaulted exposures, the flows between non-defaulted and defaulted exposure categories and reductions in the stock of defaulted exposures due to write-offs.

		Q3 2021	Q2 2021	Q1 2021	Q4 2020	Q3 2020
		a	a	a	a	a
1	Defaulted loans ⁽¹⁾ and debt securities at beginning	713	734	782	743	760
2	Loans and debt securities that have defaulted since the last reporting period	139	178	169	227	179
3	Returned to non-defaulted status since the last reporting period	(23)	(37)	(68)	(50)	(40)
4	Amounts written off	(39)	(48)	(67)	(80)	(55)
5	Other changes ⁽²⁾	(106)	(114)	(82)	(58)	(101)
6	Defaulted loans⁽¹⁾ and debt securities at end	684	713	734	782	743

(1) Including deposits with financial institutions.

(2) Including net repayments and foreign exchange movements.

CR3 – Credit Risk Mitigation Techniques – Overview

(millions of Canadian dollars)

The following tables disclose the extent of use of credit risk mitigation techniques.

		Q3 2021					Q2 2021				
		a	b1	b	d	f	a	b1	b	d	f
		Exposures unsecured: carrying amount ⁽¹⁾	Exposures subject to risk mitigation techniques ⁽¹⁾	Exposures secured by collateral	Exposures secured by financial guarantees	Exposures secured by credit derivatives	Exposures unsecured: carrying amount ⁽¹⁾	Exposures subject to risk mitigation techniques ⁽¹⁾	Exposures secured by collateral	Exposures secured by financial guarantees	Exposures secured by credit derivatives
1	Loans ⁽²⁾	113,338	73,942	66,764	6,905	–	109,596	70,162	63,546	6,413	–
2	Debt securities	30,523	–	–	–	–	30,352	–	–	–	–
3	Total	143,861	73,942	66,764	6,905	–	139,948	70,162	63,546	6,413	–
4	Of which defaulted	478	185	133	49	–	487	198	148	47	–

		Q1 2021					Q4 2020				
		a	b1	b	d	f	a	b1	b	d	f
		Exposures unsecured: carrying amount ⁽¹⁾	Exposures subject to risk mitigation techniques ⁽¹⁾	Exposures secured by collateral	Exposures secured by financial guarantees	Exposures secured by credit derivatives	Exposures unsecured: carrying amount ⁽¹⁾	Exposures subject to risk mitigation techniques ⁽¹⁾	Exposures secured by collateral	Exposures secured by financial guarantees	Exposures secured by credit derivatives
1	Loans ⁽²⁾	104,226	67,475	60,866	6,414	–	100,103	64,733	59,254	5,334	–
2	Debt securities	32,418	–	–	–	–	33,237	–	–	–	–
3	Total	136,644	67,475	60,866	6,414	–	133,340	64,733	59,254	5,334	–
4	Of which defaulted	487	241	185	52	–	511	289	234	51	–

(1) Carrying amounts of on-balance sheet exposures are net of all three ECL Stages.

(2) Including deposits with financial institutions.

Distribution of Gross Credit Risk Exposure (Non-Retail Portfolio by Industries)

(millions of Canadian dollars)

	2021																		
	Q3						Q2						Q1						
	EAD - Gross Exposure ⁽¹⁾																		
	Drawn	Undrawn commitments	Other	Repo-style transactions	Derivatives financial instruments	Total	Drawn	Undrawn commitments	Other	Repo-style transactions	Derivatives financial instruments	Total	Drawn	Undrawn commitments	Other	Repo-style transactions	Derivatives financial instruments	Total	
Non-Retail Portfolio																			
Agriculture	6,399	515	7	-	-	6,921	6,213	499	6	-	-	6,718	6,100	446	4	-	-	-	6,550
Oil & Gas and Pipelines	4,146	3,553	227	-	-	7,926	4,308	3,595	314	-	-	8,217	4,822	3,625	307	-	-	-	8,754
<i>Oil & Gas</i>	1,958	1,923	55	-	-	3,936	2,116	1,978	138	-	-	4,232	2,327	1,811	145	-	-	-	4,283
<i>Pipelines & Other</i>	2,188	1,630	172	-	-	3,990	2,192	1,617	176	-	-	3,985	2,495	1,814	162	-	-	-	4,471
Mining	473	1,326	198	-	141	2,138	589	1,153	198	-	-	1,940	576	1,281	194	-	-	-	2,051
Utilities	5,438	3,482	1,222	-	-	10,142	5,371	3,047	1,302	-	-	9,720	5,376	2,804	1,290	-	-	-	9,470
Construction Non-Real Estate ⁽²⁾	1,654	1,165	104	-	-	2,923	1,452	1,071	107	-	-	2,630	1,369	1,117	102	-	-	-	2,588
Manufacturing	5,223	2,482	321	-	-	8,026	5,056	2,617	311	-	-	7,984	5,272	2,588	338	-	-	-	8,198
Wholesale	2,847	1,061	51	-	-	3,959	2,524	959	53	-	-	3,536	2,185	1,057	51	-	-	-	3,293
Retail	2,940	1,485	41	-	-	4,466	2,748	1,519	41	-	-	4,308	2,835	1,534	42	-	-	-	4,411
Transportation	1,871	1,239	80	48	1	3,239	1,669	1,151	83	37	-	2,940	1,498	1,109	83	56	-	-	2,746
Communications	1,262	2,074	937	-	-	4,273	1,129	1,999	705	-	-	3,833	1,246	972	196	-	-	-	2,414
Finance and Insurance	34,302	4,562	1,227	123,044	2,233	165,368	32,560	4,487	1,154	120,908	2,101	161,210	33,165	4,543	1,143	119,056	2,782	160,689	
Real Estate and Construction																			
Real Estate ⁽³⁾	17,274	4,561	283	-	-	22,118	15,752	4,592	275	-	-	20,619	14,188	4,259	262	-	-	-	18,709
Professional Services	1,561	1,096	291	-	-	2,948	1,504	1,088	289	-	-	2,881	1,366	1,408	260	-	-	-	3,034
Education & Health Care	3,903	1,605	12	6	-	5,526	3,682	1,893	11	19	-	5,605	3,795	1,601	11	18	-	-	5,425
Other Services	6,255	1,896	446	28	-	8,625	6,248	1,640	462	13	-	8,363	6,104	1,914	439	3	-	-	8,460
Government	31,051	1,416	5	30,954	238	63,664	32,425	1,633	6	32,324	210	66,598	29,467	1,435	5	40,243	163	71,313	
Other	10,566	174	847	1,881	-	13,468	10,258	-	783	1,632	1	12,674	10,490	14	634	1,280	1	12,419	
Total – Non-retail⁽⁴⁾	137,165	33,692	6,299	155,961	2,613	335,730	133,488	32,943	6,100	154,933	2,312	329,776	129,854	31,707	5,361	160,656	2,946	330,524	

(1) EAD amounts are after securitization and excluding trading related portfolio.

(2) Including civil engineering loans, public-private partnership loans, and project finance loans.

(3) Including residential mortgages on dwellings of five or more units.

(4) Excluding SME retail exposure.

Distribution of Gross Credit Risk Exposure (Non-Retail Portfolio by Industries) (continued)

(millions of Canadian dollars)

	2020																	
	Q4						Q3						Q2					
	EAD - Gross Exposure ⁽¹⁾																	
	Drawn	Undrawn commitments	Other	Repo-style transactions	Derivatives financial instruments	Total	Drawn	Undrawn commitments	Other	Repo-style transactions	Derivatives financial instruments	Total	Drawn	Undrawn commitments	Other	Repo-style transactions	Derivatives financial instruments	Total
Non-Retail Portfolio																		
Agriculture	5,924	448	3	-	-	6,375	5,823	418	5	-	-	6,246	5,638	385	5	-	-	6,028
Oil & Gas and Pipelines	5,103	3,134	308	-	-	8,545	5,311	3,165	291	-	-	8,767	5,546	3,301	302	-	-	9,149
<i>Oil & Gas</i>	2,561	1,692	158	-	-	4,411	2,878	1,550	160	-	-	4,588	2,938	1,768	146	-	-	4,852
<i>Pipelines & Other</i>	2,542	1,442	150	-	-	4,134	2,433	1,615	131	-	-	4,179	2,608	1,533	156	-	-	4,297
Mining	690	1,271	167	-	-	2,128	910	1,104	163	-	-	2,177	1,192	855	178	-	-	2,225
Utilities	5,102	3,075	1,242	-	-	9,419	4,721	3,198	1,197	-	-	9,116	4,496	3,301	1,136	-	-	8,933
Construction Non-Real Estate ⁽²⁾	1,297	1,500	71	-	-	2,868	1,225	1,590	74	-	-	2,889	1,078	1,500	67	-	-	2,645
Manufacturing	5,457	2,671	376	-	-	8,504	6,124	2,462	362	-	-	8,948	6,571	2,120	339	-	-	9,030
Wholesale	2,128	995	46	-	-	3,169	2,016	1,064	61	-	-	3,141	2,257	831	47	-	-	3,135
Retail	2,828	1,608	43	-	-	4,479	2,979	1,538	39	-	-	4,556	3,657	886	41	-	-	4,584
Transportation	1,563	1,104	77	71	-	2,815	1,760	988	70	106	-	2,924	1,821	980	74	184	-	3,059
Communications	1,118	961	205	-	-	2,284	1,178	996	206	-	-	2,380	1,578	791	203	-	-	2,572
Finance and Insurance	28,678	4,123	1,029	111,002	2,337	147,169	28,072	4,084	1,139	127,473	1,360	162,128	32,469	4,106	1,088	138,269	1,398	177,330
Real Estate and Construction																		
Real Estate ⁽³⁾	13,418	3,506	256	-	-	17,180	12,631	3,569	231	-	-	16,431	12,101	3,074	217	-	-	15,392
Professional Services	1,243	1,152	273	-	-	2,668	1,559	1,042	277	-	-	2,878	1,892	704	326	-	-	2,922
Education & Health Care	3,581	1,523	10	3	-	5,117	3,666	1,003	8	3	-	4,680	3,628	1,203	7	1	-	4,839
Other Services	6,180	1,755	454	-	-	8,389	6,350	1,644	449	-	-	8,443	6,302	1,425	453	-	-	8,180
Government	29,873	1,426	5	33,186	178	64,668	28,559	1,197	3	34,194	145	64,098	22,461	1,588	3	35,429	125	59,606
Other	9,974	41	823	855	16	11,709	9,654	42	700	636	13	11,045	10,031	44	817	1,760	-	12,652
Total – Non-retail⁽⁴⁾	124,157	30,293	5,388	145,117	2,531	307,486	122,538	29,104	5,275	162,412	1,518	320,847	122,718	27,094	5,303	175,643	1,523	332,281

(1) EAD amounts are after securitization and excluding trading related portfolio.

(2) Including civil engineering loans, public-private partnership loans, and project finance loans.

(3) Including residential mortgages on dwellings of five or more units.

(4) Excluding SME retail exposure.

Gross Credit Risk Exposure at Default in Europe⁽¹⁾

(millions of Canadian dollars)

	2021																		
	Q3						Q2						Q1						
	Drawn	Undrawn commitments	Repo-style transactions ⁽²⁾	Derivatives Financial Instruments	Other off-balance sheet items ⁽³⁾	Total	Drawn	Undrawn commitments	Repo-style transactions ⁽²⁾	Derivatives Financial Instruments	Other off-balance sheet items ⁽³⁾	Total	Drawn	Undrawn commitments	Repo-style transactions ⁽²⁾	Derivatives Financial Instruments	Other off-balance sheet items ⁽³⁾	Total	
Greece	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ireland	1	-	671	3	-	675	1	-	576	7	-	584	1	-	462	6	-	469	
Italy	3	2	-	-	15	20	-	3	-	-	15	18	2	3	-	-	-	5	10
Portugal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spain	3	53	128	10	17	211	1	55	910	7	31	1,004	-	30	1,356	16	33	1,435	
Total GIIPS	7	55	799	13	32	906	2	58	1,486	14	46	1,606	3	33	1,818	22	38	1,914	
France	38	61	1,458	131	303	1,991	35	56	2,311	185	298	2,885	24	55	4,037	145	323	4,584	
Germany	158	30	-	47	165	400	168	33	-	44	19	264	162	20	-	59	19	260	
United Kingdom	1,431	113	17,747	2,429	3	21,723	1,834	113	20,263	2,056	3	24,269	2,214	98	22,034	2,728	3	27,077	
Other Europe	134	47	5,161	454	2	5,798	81	97	4,647	389	11	5,225	180	36	3,885	617	8	4,726	
Total – Credit Risk⁽⁴⁾	1,768	306	25,165	3,074	505	30,818	2,120	357	28,707	2,688	377	34,249	2,583	242	31,774	3,571	391	38,561	

Adjustment to exposure for collateral	Drawn	Undrawn commitments	Net Repo-Style transactions and derivatives financial instruments	Other off-balance sheet items ⁽³⁾	Total	Drawn	Undrawn commitments	Net Repo-Style transactions and derivatives financial instruments	Other off-balance sheet items ⁽³⁾	Total	Drawn	Undrawn commitments	Net Repo-Style transactions and derivatives financial instruments	Other off-balance sheet items ⁽³⁾	Total
	Total – Net Credit Risk⁽⁴⁾	1,768	306	1,423	505	4,002	2,120	357	1,631	377	4,485	2,583	242	1,585	391

	2020																	
	Q4						Q3						Q2					
	Drawn	Undrawn commitments	Repo-style transactions ⁽²⁾	Derivatives Financial Instruments	Other off-balance sheet items ⁽³⁾	Total	Drawn	Undrawn commitments	Repo-style transactions ⁽²⁾	Derivatives Financial Instruments	Other off-balance sheet items ⁽³⁾	Total	Drawn	Undrawn commitments	Repo-style transactions ⁽²⁾	Derivatives Financial Instruments	Other off-balance sheet items ⁽³⁾	Total
Greece	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ireland	-	-	143	9	-	152	80	24	172	7	-	283	82	20	35	10	-	147
Italy	-	1	-	-	5	6	-	1	-	-	3	4	-	1	-	-	-	4
Portugal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spain	8	30	1,346	1	31	1,416	10	30	1,377	1	31	1,449	20	30	716	1	31	798
Total GIIPS	8	31	1,489	10	36	1,574	90	55	1,549	8	34	1,736	102	51	751	11	34	949
France	24	71	1,959	9	355	2,418	67	68	7,777	143	351	8,406	40	80	7,082	133	358	7,693
Germany	172	23	-	34	20	249	175	22	-	35	21	253	179	29	-	32	27	267
United Kingdom	1,637	80	22,314	2,265	3	26,299	2,215	4	25,418	2,195	3	29,835	1,973	2	33,668	2,062	3	37,708
Other Europe	284	45	4,580	559	11	5,479	349	45	4,075	437	2	4,908	216	154	3,789	423	2	4,584
Total – Credit Risk⁽⁴⁾	2,125	250	30,342	2,877	425	36,019	2,896	194	38,819	2,818	411	45,138	2,510	316	45,290	2,661	424	51,201

Adjustment to exposure for collateral	Drawn	Undrawn commitments	Net Repo-Style transactions and derivatives financial instruments	Other off-balance sheet items ⁽³⁾	Total	Drawn	Undrawn commitments	Net Repo-Style transactions and derivatives financial instruments	Other off-balance sheet items ⁽³⁾	Total	Drawn	Undrawn commitments	Net Repo-Style transactions and derivatives financial instruments	Other off-balance sheet items ⁽³⁾	Total
	Total – Net Credit Risk⁽⁴⁾	2,125	250	1,484	425	4,284	2,896	194	1,609	411	5,110	2,510	316	1,549	424

(1) Exposure at default is the expected gross exposure upon the default of an obligor. This amount is before any specific allowance or partial write-offs and does not reflect the impact of credit risk mitigation and collateral held. These tables exclude Equity exposures.

(2) Represents securities purchased under reverse repurchase agreements and sold under repurchase agreements, and securities borrowed and loaned.

(3) Letters of guarantee and credit that represent the Bank's commitment to make payments in the event that a client cannot meet its financial obligations to third parties.

(4) For drawn, undrawn and Other off-balance sheet exposures, eligible financial collateral is taken into account in the Bank's Loss Given Default (LGD) models.

CR4 – Standardised Approach – Credit Risk Exposure and Credit Risk Mitigation (CRM) Effects⁽¹⁾

(millions of Canadian dollars)

The following tables illustrate the effect of CRM on standardised approach capital requirements' calculations. RWA density provides a synthetic metric on riskiness of each portfolio.

		Q3 2021						Q2 2021					
		a	b	c	d	e	f	a	b	c	d	e	f
		Exposures before CCF and CRM		Exposures post-CCF and CRM		RWA	RWA density	Exposures before CCF and CRM		Exposures post-CCF and CRM		RWA	RWA density
Assets classes		On-balance sheet amount	Off-balance sheet amount	On-balance sheet amount	Off-balance sheet amount			On-balance sheet amount	Off-balance sheet amount	On-balance sheet amount	Off-balance sheet amount		
1	Sovereigns and their central banks	2,237	81	2,237	–	1,680	75%	2,372	82	2,372	–	1,771	75%
2	Non-central government public sector entities	–	–	–	–	–	0%	–	–	–	–	–	0%
3	Multilateral development banks	272	–	272	–	–	0%	185	–	185	–	–	0%
4	Financial institutions	865	4,937	865	411	631	49%	837	4,985	837	430	653	52%
5	Securities firms	–	–	–	–	–	0%	–	–	–	–	–	0%
6	Corporates	7,470	529	7,470	135	4,176	55%	7,148	458	7,148	82	3,954	55%
7	Regulatory retail portfolios	4,778	184	4,778	51	2,884	60%	4,403	86	4,403	25	2,555	58%
8	Secured by residential property	6,569	145	6,569	43	2,304	35%	6,018	145	6,018	46	2,195	36%
9	Secured by commercial real estate	221	–	221	–	221	100%	185	–	185	–	185	100%
10	Equity	–	–	–	–	–	0%	–	–	–	–	–	0%
11	Past-due loans	48	2	48	–	35	73%	43	1	43	–	32	74%
12	Higher-risk categories	4	–	4	–	6	150%	–	–	–	–	–	0%
13	Other assets ⁽²⁾	4,442	–	4,442	–	2,851	64%	4,084	–	4,084	–	2,847	70%
14	Total	26,906	5,878	26,906	640	14,788	54%	25,275	5,757	25,275	583	14,192	55%

		Q1 2021						Q4 2020					
		a	b	c	d	e	f	a	b	c	d	e	f
		Exposures before CCF and CRM		Exposures post-CCF and CRM		RWA	RWA density	Exposures before CCF and CRM		Exposures post-CCF and CRM		RWA	RWA density
Assets classes		On-balance sheet amount	Off-balance sheet amount	On-balance sheet amount	Off-balance sheet amount			On-balance sheet amount	Off-balance sheet amount	On-balance sheet amount	Off-balance sheet amount		
1	Sovereigns and their central banks	2,565	81	2,565	–	2,062	80%	2,672	82	2,672	–	2,069	77%
2	Non-central government public sector entities	–	–	–	–	–	0%	–	–	–	–	–	0%
3	Multilateral development banks	254	–	254	–	–	0%	304	–	304	–	–	0%
4	Financial institutions	867	4,798	867	242	619	56%	802	4,839	802	271	609	57%
5	Securities firms	–	–	–	–	–	0%	–	–	–	–	–	0%
6	Corporates	7,324	637	7,324	190	4,021	54%	6,232	785	6,232	235	3,739	58%
7	Regulatory retail portfolios	3,849	51	3,849	14	2,136	55%	4,130	27	4,130	7	2,342	57%
8	Secured by residential property	6,158	124	6,158	49	2,330	38%	6,555	139	6,555	55	2,392	36%
9	Secured by commercial real estate	179	–	179	–	179	100%	157	–	157	–	157	100%
10	Equity	–	–	–	–	–	0%	–	–	–	–	–	0%
11	Past-due loans	47	2	47	–	36	77%	46	3	46	–	33	72%
12	Higher-risk categories	4	–	4	–	6	150%	4	–	4	–	6	150%
13	Other assets ⁽²⁾	3,779	–	3,779	–	2,761	73%	3,978	–	3,978	–	2,882	72%
14	Total	25,026	5,693	25,026	495	14,150	55%	24,880	5,875	24,880	568	14,229	56%

(1) Excluding items subject to securitization and counterparty credit risk frameworks.

(2) For completeness purposes, row 13 "Other assets" is populated with all other assets except exposures that are subject to direct capital deductions, those that are treated in the off-balance sheet calculations and exposures below the threshold for deduction.

CR5 – Standardised Approach – Exposures by Asset Classes and Risk Weights⁽¹⁾

(millions of Canadian dollars)

The following tables present the breakdown of credit risk exposures under the standardised approach by asset class and risk weight (corresponding to the riskiness attributed to the exposure according to standardised approach).

		Q3 2021										Q2 2021									
		a	b	c	d	e	f	g	h	i	j	a	b	c	d	e	f	g	h	i	j
Risk weight		0%	10%	20%	35%	50%	75%	100%	150%	Others	Total credit exposures amount ⁽²⁾	0%	10%	20%	35%	50%	75%	100%	150%	Others	Total credit exposures amount ⁽²⁾
Asset classes		0%	10%	20%	35%	50%	75%	100%	150%	Others	Total credit exposures amount ⁽²⁾	0%	10%	20%	35%	50%	75%	100%	150%	Others	Total credit exposures amount ⁽²⁾
1	Sovereigns and their central banks	557	-	-	-	-	-	1,680	-	-	2,237	601	-	-	-	-	-	1,771	-	-	2,372
2	Non-central government public sector entities	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	Multilateral development banks	272	-	-	-	-	-	-	-	-	272	185	-	-	-	-	-	-	-	-	185
4	Financial institutions	120	-	649	-	11	-	496	-	-	1,276	53	-	693	-	18	-	499	4	-	1,267
5	Securities firms	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	Corporates	3,428	-	-	-	-	-	4,177	-	-	7,605	3,275	-	-	-	-	-	3,955	-	-	7,230
7	Regulatory retail portfolios	984	-	-	-	-	3,845	-	-	-	4,829	1,021	-	-	-	3,407	-	-	-	-	4,428
8	Secured by residential property	879	-	-	4,977	32	713	11	-	-	6,612	689	-	-	4,579	32	751	13	-	-	6,064
9	Secured by commercial real estate	-	-	-	-	-	-	221	-	-	221	-	-	-	-	-	-	185	-	-	185
10	Equity	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	Past-due loans	13	-	-	-	-	-	34	1	-	48	12	-	-	-	-	-	30	1	-	43
12	Higher-risk categories	-	-	-	-	-	-	-	4	-	4	-	-	-	-	-	-	-	-	-	-
13	Other assets ⁽³⁾	1,352	-	301	-	-	-	2,789	-	-	4,442	1,218	-	59	-	-	-	2,805	-	2	4,084
14	Total	7,605	-	950	4,977	43	4,558	9,408	5	-	27,546	7,054	-	752	4,579	50	4,158	9,258	5	2	25,858

		Q1 2021										Q4 2020									
		a	b	c	d	e	f	g	h	i	j	a	b	c	d	e	f	g	h	i	j
Risk weight		0%	10%	20%	35%	50%	75%	100%	150%	Others	Total credit exposures amount ⁽²⁾	0%	10%	20%	35%	50%	75%	100%	150%	Others	Total credit exposures amount ⁽²⁾
Asset classes		0%	10%	20%	35%	50%	75%	100%	150%	Others	Total credit exposures amount ⁽²⁾	0%	10%	20%	35%	50%	75%	100%	150%	Others	Total credit exposures amount ⁽²⁾
1	Sovereigns and their central banks	503	-	-	-	-	-	2,062	-	-	2,565	603	-	-	-	-	-	2,069	-	-	2,672
2	Non-central government public sector entities	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	Multilateral development banks	254	-	-	-	-	-	-	-	-	254	304	-	-	-	-	-	-	-	-	304
4	Financial institutions	43	-	546	-	18	-	502	-	-	1,109	50	-	517	-	-	-	506	-	-	1,073
5	Securities firms	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	Corporates	3,444	-	62	-	-	-	4,008	-	-	7,514	2,679	-	62	-	-	-	3,726	-	-	6,467
7	Regulatory retail portfolios	1,015	-	-	-	-	2,848	-	-	-	3,863	1,015	-	-	-	3,122	-	-	-	-	4,137
8	Secured by residential property	623	-	-	4,652	35	851	46	-	-	6,207	887	-	-	4,751	41	886	45	-	-	6,610
9	Secured by commercial real estate	-	-	-	-	-	-	179	-	-	179	-	-	-	-	-	-	157	-	-	157
10	Equity	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	Past-due loans	13	-	-	-	-	-	30	4	-	47	14	-	-	-	-	-	29	3	-	46
12	Higher-risk categories	-	-	-	-	-	-	-	4	-	4	-	-	-	-	-	-	-	4	-	4
13	Other assets ⁽³⁾	1,068	-	-	-	-	-	2,707	-	4	3,779	1,088	-	82	-	-	-	2,803	-	5	3,978
14	Total	6,963	-	608	4,652	53	3,699	9,534	8	4	25,521	6,640	-	661	4,751	41	4,008	9,335	7	5	25,448

(1) Excluding items subject to securitization and counterparty credit risk frameworks. In the wholesale portfolio, for sovereign and banks asset classes, risk weights are based on external credit ratings issued by independent rating agencies (Moody's, Standard & Poor's, Fitch or DBRS) approved by our supervisor, OSFI.

(2) Post-CCF and Post-CRM.

(3) For completeness purposes, row 13 "Other assets" is populated with all other assets except exposures that are subject to direct capital deductions, those that are treated in the off-balance sheet calculations and exposures below the threshold for deduction.

CR6 – IRB – Credit Risk Exposures by Portfolio and PD Range

(millions of Canadian dollars)

The following tables provide the main parameters used for the calculation of capital requirements for IRB models. The purpose of disclosing these parameters is to enhance the transparency of banks' RWA calculations and the reliability of regulatory measures.

Q3 2021												
	a	b	c	d	e	f	g	h	i	j	k	l
	Original on-balance sheet gross exposure	Off-balance sheet exposures pre CCF ⁽²⁾	Average CCF ⁽³⁾	EAD post CRM and post-CCF	Average PD ⁽⁴⁾	Number of obligors ⁽⁵⁾	Average LGD ⁽⁶⁾	Average maturity ⁽⁷⁾	RWA ⁽⁸⁾	RWA density ⁽⁹⁾	EL ⁽¹⁰⁾	Allowances for credit losses
PD scale ⁽¹⁾												
Residential Mortgages – insured	0.00 to < 0.15	1,076	–	0%	1,076	0.08%	58,168	6.1%		13	1.3%	–
	0.15 to < 0.25	373	–	0%	373	0.19%	14,032	7.7%		12	3.2%	–
	0.25 to < 0.50	512	–	0%	512	0.36%	17,409	6.1%		20	3.9%	–
	0.50 to < 0.75	308	–	0%	308	0.60%	7,769	4.9%		14	4.6%	–
	0.75 to < 2.50	549	–	0%	549	1.29%	11,385	3.9%		32	5.9%	–
	2.50 to < 10.00	107	–	0%	107	4.26%	2,415	3.1%		10	9.4%	–
	10.00 to < 100.00	37	–	0%	37	26.09%	831	2.7%		6	15.9%	–
	100.00 (Default)	29	–	0%	29	100.00%	406	2.9%		2	5.9%	2
Sub-total	2,991	–	0%	2,991	1.85%	112,415	5.6%		109	3.7%	2	4
Residential Mortgages and HELOCs – uninsured	0.00 to < 0.15	31,879	16,525	50%	40,115	0.06%	221,839	19.0%		1,355	3.4%	5
	0.15 to < 0.25	8,193	1,354	68%	9,107	0.19%	34,469	20.0%		766	8.4%	4
	0.25 to < 0.50	8,129	1,313	74%	9,095	0.34%	31,077	20.7%		1,166	12.8%	6
	0.50 to < 0.75	2,200	217	72%	2,356	0.60%	8,876	21.5%		469	19.9%	2
	0.75 to < 2.50	2,693	181	73%	2,825	1.15%	10,264	21.1%		852	30.2%	7
	2.50 to < 10.00	401	19	69%	414	4.40%	2,316	19.7%		261	62.9%	4
	10.00 to < 100.00	119	–	175%	120	23.90%	723	19.9%		137	114.3%	6
	100.00 (Default)	57	2	93%	59	100.00%	495	21.0%		86	146.6%	7
Sub-total	53,671	19,611	53%	64,091	0.35%	310,059	19.6%		5,092	7.9%	41	52
Qualifying revolving retail	0.00 to < 0.15	768	6,449	75%	5,594	0.05%	777,073	78.5%		150	2.7%	2
	0.15 to < 0.25	181	789	91%	900	0.19%	231,182	87.6%		88	9.8%	2
	0.25 to < 0.50	256	518	87%	706	0.35%	184,560	84.0%		104	14.6%	2
	0.50 to < 0.75	184	240	90%	401	0.64%	72,340	78.8%		90	22.6%	2
	0.75 to < 2.50	554	385	92%	910	1.44%	244,799	85.2%		415	45.7%	11
	2.50 to < 10.00	374	53	127%	441	4.40%	183,634	87.9%		449	101.8%	17
	10.00 to < 100.00	48	3	89%	51	23.41%	18,301	88.3%		119	233.3%	11
	100.00 (Default)	13	–	70%	13	100.00%	3,243	71.0%		9	68.5%	9
Sub-total	2,378	8,437	79%	9,016	0.75%	1,715,132	81.0%		1,424	15.8%	56	221
Other retail	0.00 to < 0.15	2,036	2,498	64%	3,633	0.06%	128,610	51.3%		317	8.7%	1
	0.15 to < 0.25	902	370	61%	1,128	0.20%	52,859	52.9%		264	23.4%	1
	0.25 to < 0.50	1,417	358	65%	1,648	0.37%	76,754	52.6%		546	33.1%	3
	0.50 to < 0.75	1,167	232	80%	1,352	0.64%	58,720	56.2%		668	49.4%	5
	0.75 to < 2.50	3,415	214	69%	3,561	1.36%	189,606	52.7%		2,218	62.3%	26
	2.50 to < 10.00	967	80	66%	1,020	3.99%	56,507	51.0%		789	77.4%	21
	10.00 to < 100.00	215	13	54%	222	22.84%	9,697	52.3%		262	118.1%	25
	100.00 (Default)	85	6	40%	87	100.00%	6,630	51.9%		60	68.5%	52
Sub-total	10,204	3,771	65%	12,651	1.94%	579,383	52.5%		5,124	40.5%	134	161

(1) Prescribed PD bands based on BIS document on Revised Pillar 3 disclosure requirements issued in January 2015.

(2) Represents the exposure value without taking into account value adjustments and provisions, conversion factors and the effect of credit risk mitigation techniques.

(3) Represents the EAD post-CCF for off-balance sheet exposure to total off-balance sheet exposure pre CCF.

(4) Represents the obligor grade PD weighted by EAD.

(5) Represents the number of retail accounts.

(6) Represents the obligor grade LGD (net of any CRM effect) weighted by EAD.

(7) Represents the obligor maturity in years weighted by EAD. This parameter needs to be filled in only when it is used for the RWA calculation.

(8) Risk weighted assets including the 1.06 scaling factor.

(9) Total risk-weighted assets to EAD post-CRM.

(10) The expected losses (EL) as calculated according to paragraphs 375 - 379 of the Basel framework.

CR6 – IRB – Credit Risk Exposures by Portfolio and PD Range (continued)

(millions of Canadian dollars)

Q3 2021													
	a	b	c	d	e	f	g	h	i	j	k	l	
PD scale ⁽¹⁾	Original on-balance sheet gross exposure	Off-balance sheet exposures pre CCF ⁽²⁾	Average CCF ⁽³⁾	EAD post CRM and post-CCF	Average PD ⁽⁴⁾	Number of obligors ⁽⁵⁾	Average LGD ⁽⁶⁾	Average maturity ⁽⁷⁾	RWA ⁽⁸⁾	RWA density ⁽⁹⁾	EL ⁽¹⁰⁾	Allowances for credit losses	
Corporate	0.00 to < 0.15	2,303	9,046	83%	8,850	0.09%	662	46.5%	2.31	2,399	27.1%	4	
	0.15 to < 0.25	13,395	16,745	89%	25,821	0.21%	3,050	37.3%	2.33	8,399	32.5%	20	
	0.25 to < 0.50	11,286	6,953	88%	16,561	0.36%	2,505	35.8%	2.49	6,717	40.6%	21	
	0.50 to < 0.75	11,065	4,067	93%	14,299	0.56%	2,536	34.8%	2.16	6,632	46.4%	27	
	0.75 to < 2.50	20,093	6,617	91%	24,364	1.14%	6,596	34.7%	2.15	14,733	60.5%	96	
	2.50 to < 10.00	3,480	911	72%	4,290	4.62%	1,117	33.7%	1.60	3,973	92.6%	68	
	10.00 to < 100.00	111	43	83%	142	17.50%	61	35.6%	1.07	205	144.4%	9	
	100.00 (Default)	490	17	99%	499	100.00%	191	39.9%	1.03	359	71.9%	267	
	Sub-total	62,223	44,399	88%	94,826	1.26%	16,718	36.7%	2.24	43,417	45.8%	512	756
Sovereign	0.00 to < 0.15	59,533	6,933	98%	65,552	0.01%	609	8.7%	2.11	764	1.2%	1	
	0.15 to < 0.25	-	-	0%	-	0%	-	0%	-	-	0%	-	
	0.25 to < 0.50	-	-	0%	-	0%	-	0%	-	-	0%	-	
	0.50 to < 0.75	-	-	0%	-	0%	-	0%	-	-	0%	-	
	0.75 to < 2.50	-	-	0%	-	0%	-	0%	-	-	0%	-	
	2.50 to < 10.00	23	37	89%	54	8.62%	2	15.0%	1.00	31	57.4%	1	
	10.00 to < 100.00	-	-	0%	-	0%	-	0%	-	-	0%	-	
	100.00 (Default)	-	-	0%	-	0%	-	0%	-	-	0%	-	
	Sub-total	59,556	6,970	98%	65,606	0.02%	611	8.7%	2.11	795	1.2%	2	3
Financial institutions	0.00 to < 0.15	3,485	388	6%	3,848	0.05%	65	48.6%	1.30	698	18.1%	1	
	0.15 to < 0.25	265	272	92%	536	0.20%	29	28.0%	1.10	125	23.3%	-	
	0.25 to < 0.50	9	113	100%	121	0.36%	6	23.4%	1.14	35	28.9%	-	
	0.50 to < 0.75	20	42	80%	61	0.56%	8	36.0%	2.66	35	57.4%	-	
	0.75 to < 2.50	533	6	100%	538	1.72%	10	12.5%	2.27	178	33.1%	1	
	2.50 to < 10.00	-	-	0%	-	7.24%	2	38.6%	1.00	-	0%	-	
	10.00 to < 100.00	-	-	0%	-	0%	-	0%	-	-	0%	-	
	100.00 (Default)	-	-	0%	-	0%	-	0%	-	-	0%	-	
	Sub-total	4,312	821	52%	5,104	0.26%	120	41.8%	1.39	1,071	21.0%	2	4
Total (all portfolio)	195,335	84,009	76%	254,285	0.72%	2,734,438	27.3%	2.00	57,032	22.3%	749	1,201	

(1) Prescribed PD bands based on BIS document on Revised Pillar 3 disclosure requirements issued in January 2015.

(2) Represents the exposure value without taking into account value adjustments and provisions, conversion factors and the effect of credit risk mitigation techniques.

(3) Represents the EAD post-CCF for off-balance sheet exposure to total off-balance sheet exposure pre CCF.

(4) Represents the obligor grade PD weighted by EAD.

(5) Represents the number of individual borrowers.

(6) Represents the obligor grade LGD (net of any CRM effect) weighted by EAD.

(7) Represents the obligor maturity in years weighted by EAD. This parameter needs to be filled in only when it is used for the RWA calculation.

(8) Risk weighted assets including the 1.06 scaling factor.

(9) Total risk-weighted assets to EAD post-CRM.

(10) The expected losses (EL) as calculated according to paragraphs 375 - 379 of the Basel framework.

CR6 – IRB – Credit Risk Exposures by Portfolio and PD Range (continued)

(millions of Canadian dollars)

Q2 2021												
	a	b	c	d	e	f	g	h	i	j	k	l
PD scale ⁽¹⁾	Original on-balance sheet gross exposure	Off-balance sheet exposures pre CCF ⁽²⁾	Average CCF ⁽³⁾	EAD post CRM and post-CCF	Average PD ⁽⁴⁾	Number of obligors ⁽⁵⁾	Average LGD ⁽⁶⁾	Average maturity ⁽⁷⁾	RWA ⁽⁸⁾	RWA density ⁽⁹⁾	EL ⁽¹⁰⁾	Allowances for credit losses
Residential Mortgages – insured												
0.00 to < 0.15	1,002	–	0%	1,002	0.08%	60,088	6.1%		12	1.2%	–	
0.15 to < 0.25	308	–	0%	308	0.19%	14,066	6.1%		8	2.5%	–	
0.25 to < 0.50	398	–	0%	398	0.36%	17,697	5.2%		14	3.4%	–	
0.50 to < 0.75	238	–	0%	238	0.60%	7,745	4.6%		10	4.2%	–	
0.75 to < 2.50	398	–	0%	398	1.28%	11,595	3.8%		23	5.8%	–	
2.50 to < 10.00	98	–	0%	98	4.59%	2,767	3.1%		10	9.9%	–	
10.00 to < 100.00	41	–	0%	41	29.18%	1,018	2.8%		7	16.1%	–	
100.00 (Default)	34	–	0%	34	100.00%	443	2.8%		4	10.3%	2	
Sub-total	2,517	–	0%	2,517	2.39%	115,419	5.3%		88	3.4%	2	5
Residential Mortgages and HELOCs – uninsured												
0.00 to < 0.15	30,281	16,307	50%	38,390	0.06%	218,714	19.1%		1,310	3.4%	5	
0.15 to < 0.25	7,742	1,305	68%	8,632	0.19%	33,808	20.4%		740	8.6%	3	
0.25 to < 0.50	7,740	1,270	73%	8,666	0.34%	30,574	21.1%		1,130	13.0%	6	
0.50 to < 0.75	2,157	208	73%	2,309	0.60%	8,806	21.4%		461	20.0%	3	
0.75 to < 2.50	2,635	183	70%	2,763	1.16%	10,598	21.1%		839	30.4%	7	
2.50 to < 10.00	429	25	68%	446	4.51%	2,545	20.6%		297	66.5%	4	
10.00 to < 100.00	135	1	154%	136	24.84%	877	20.7%		161	118.1%	7	
100.00 (Default)	63	2	79%	64	100.00%	523	21.9%		94	146.7%	8	
Sub-total	51,182	19,301	53%	61,406	0.38%	306,445	19.8%		5,032	8.2%	43	54
Qualifying revolving retail												
0.00 to < 0.15	753	6,304	75%	5,458	0.05%	776,127	78.2%		145	2.7%	2	
0.15 to < 0.25	172	754	91%	856	0.19%	232,606	87.4%		84	9.8%	2	
0.25 to < 0.50	250	504	86%	687	0.35%	186,592	83.7%		100	14.5%	2	
0.50 to < 0.75	179	233	90%	388	0.64%	72,869	78.8%		88	22.6%	2	
0.75 to < 2.50	545	363	92%	877	1.44%	235,053	84.7%		398	45.3%	11	
2.50 to < 10.00	370	53	124%	435	4.40%	181,584	87.6%		441	101.4%	16	
10.00 to < 100.00	49	3	92%	53	24.49%	18,617	87.9%		123	234.9%	12	
100.00 (Default)	15	–	8%	15	100.00%	3,500	71.0%		7	49.9%	11	
Sub-total	2,333	8,214	78%	8,769	0.78%	1,706,948	80.7%		1,386	15.8%	58	243
Other retail												
0.00 to < 0.15	2,018	2,422	64%	3,558	0.06%	126,349	51.2%		312	8.8%	1	
0.15 to < 0.25	890	363	61%	1,112	0.20%	53,299	52.5%		257	23.2%	1	
0.25 to < 0.50	1,340	348	62%	1,555	0.37%	75,357	52.7%		517	33.2%	3	
0.50 to < 0.75	1,133	234	78%	1,315	0.64%	58,159	55.7%		644	48.9%	5	
0.75 to < 2.50	3,448	224	69%	3,601	1.38%	188,852	52.3%		2,233	62.0%	27	
2.50 to < 10.00	984	75	67%	1,035	4.04%	59,167	52.0%		816	78.9%	22	
10.00 to < 100.00	222	14	51%	230	23.45%	10,058	50.0%		261	113.8%	25	
100.00 (Default)	91	4	33%	92	100.00%	6,837	51.8%		81	87.5%	50	
Sub-total	10,126	3,684	64%	12,498	2.05%	578,078	52.3%		5,121	41.0%	134	167

(1) Prescribed PD bands based on BIS document on Revised Pillar 3 disclosure requirements issued in January 2015.

(2) Represents the exposure value without taking into account value adjustments and provisions, conversion factors and the effect of credit risk mitigation techniques.

(3) Represents the EAD post-CCF for off-balance sheet exposure to total off-balance sheet exposure pre CCF.

(4) Represents the obligor grade PD weighted by EAD.

(5) Represents the number of retail accounts.

(6) Represents the obligor grade LGD (net of any CRM effect) weighted by EAD.

(7) Represents the obligor maturity in years weighted by EAD. This parameter needs to be filled in only when it is used for the RWA calculation.

(8) Risk weighted assets including the 1.06 scaling factor.

(9) Total risk-weighted assets to EAD post-CRM.

(10) The expected losses (EL) as calculated according to paragraphs 375 - 379 of the Basel framework.

CR6 – IRB – Credit Risk Exposures by Portfolio and PD Range (continued)

(millions of Canadian dollars)

Q2 2021												
	a	b	c	d	e	f	g	h	i	j	k	l
PD scale ⁽¹⁾	Original on-balance sheet gross exposure	Off-balance sheet exposures pre CCF ⁽²⁾	Average CCF ⁽³⁾	EAD post CRM and post-CCF	Average PD ⁽⁴⁾	Number of obligors ⁽⁵⁾	Average LGD ⁽⁶⁾	Average maturity ⁽⁷⁾	RWA ⁽⁸⁾	RWA density ⁽⁹⁾	EL ⁽¹⁰⁾	Allowances for credit losses
Corporate	0.00 to < 0.15	1,733	8,956	86%	8,164	0.09%	576	47.2%	2.13	2,163	26.5%	3
	0.15 to < 0.25	12,270	15,016	87%	23,491	0.20%	2,805	38.2%	2.21	7,478	31.8%	18
	0.25 to < 0.50	10,013	6,433	86%	14,838	0.36%	2,341	34.6%	2.34	5,810	39.2%	19
	0.50 to < 0.75	10,244	4,376	95%	13,671	0.56%	2,596	33.7%	2.16	6,291	46.0%	26
	0.75 to < 2.50	20,479	7,223	91%	25,281	1.14%	6,598	34.4%	2.08	15,400	60.9%	99
	2.50 to < 10.00	3,412	886	69%	4,182	4.57%	1,181	32.4%	1.58	3,691	88.3%	63
	10.00 to < 100.00	128	74	90%	179	16.70%	55	34.1%	1.22	258	144.1%	10
	100.00 (Default)	507	23	100%	523	100.00%	204	38.9%	1.06	598	114.3%	246
	Sub-total	58,786	42,987	88%	90,329	1.35%	16,356	36.4%	2.14	41,689	46.2%	484
Sovereign	0.00 to < 0.15	60,280	7,199	98%	66,530	0.01%	617	8.8%	2.06	774	1.2%	1
	0.15 to < 0.25	–	–	0%	–	0%	–	0%	–	–	0%	–
	0.25 to < 0.50	–	–	0%	–	0%	–	0%	–	–	0%	–
	0.50 to < 0.75	–	–	0%	–	0%	–	0%	–	–	0%	–
	0.75 to < 2.50	–	–	0%	–	0%	–	0%	–	–	0%	–
	2.50 to < 10.00	29	35	89%	57	8.62%	3	16.3%	1.00	37	64.9%	1
	10.00 to < 100.00	–	–	0%	–	0%	–	0%	–	–	0%	–
	100.00 (Default)	–	–	0%	–	0%	–	0%	–	–	0%	–
	Sub-total	60,309	7,234	98%	66,587	0.02%	620	8.8%	2.06	811	1.2%	2
Financial institutions	0.00 to < 0.15	3,157	327	6%	3,484	0.06%	61	48.6%	1.20	687	19.7%	1
	0.15 to < 0.25	257	345	96%	602	0.19%	29	24.1%	1.07	116	19.3%	–
	0.25 to < 0.50	10	38	100%	48	0.36%	5	41.3%	1.00	25	52.1%	–
	0.50 to < 0.75	–	10	0%	10	0.56%	7	49.5%	1.82	7	70.0%	–
	0.75 to < 2.50	219	6	100%	224	0.86%	10	16.2%	1.27	78	34.8%	–
	2.50 to < 10.00	–	–	0%	–	3.63%	2	46.1%	1.00	–	0%	–
	10.00 to < 100.00	–	–	0%	–	0%	–	0%	–	–	0%	–
	100.00 (Default)	–	–	0%	–	0%	–	0%	–	–	0%	–
	Sub-total	3,643	726	54%	4,368	0.12%	114	43.4%	1.18	913	20.9%	1
Total (all portfolio)	188,896	82,146	76%	246,474	0.76%	2,723,980	26.9%	2.10	55,040	22.3%	724	1,233

(1) Prescribed PD bands based on BIS document on Revised Pillar 3 disclosure requirements issued in January 2015.

(2) Represents the exposure value without taking into account value adjustments and provisions, conversion factors and the effect of credit risk mitigation techniques.

(3) Represents the EAD post-CCF for off-balance sheet exposure to total off-balance sheet exposure pre CCF.

(4) Represents the obligor grade PD weighted by EAD.

(5) Represents the number of individual borrowers.

(6) Represents the obligor grade LGD (net of any CRM effect) weighted by EAD.

(7) Represents the obligor maturity in years weighted by EAD. This parameter needs to be filled in only when it is used for the RWA calculation.

(8) Risk weighted assets including the 1.06 scaling factor.

(9) Total risk-weighted assets to EAD post-CRM.

(10) The expected losses (EL) as calculated according to paragraphs 375 - 379 of the Basel framework.

CR8 – RWA Flow Statements of Credit Risk Exposures Under IRB

(millions of Canadian dollars)

The following table presents a flow statement explaining variations in the credit risk-weighted assets (RWA) determined under an IRB approach.

	Q3 2021	Q2 2021	Q1 2021	Q4 2020	Q3 2020	Q2 2020	Q1 2020
	a	a	a	a	a	a	a
1 RWA at beginning	57,015	56,339	55,017	54,451	54,049	49,915	49,546
2 Book size ⁽¹⁾	2,373	1,460	2,015	343	569	3,668	391
3 Book quality ⁽²⁾	(595)	(433)	(115)	720	156	(59)	(41)
4 Model updates ⁽³⁾	–	–	(211)	(447)	–	112	(17)
5 Methodology and policy ⁽⁴⁾	–	–	–	–	–	–	–
6 Acquisitions and disposals ⁽⁵⁾	–	–	–	–	–	–	–
7 Foreign exchange movements ⁽⁶⁾	133	(351)	(367)	(50)	(323)	413	36
8 Other ⁽⁷⁾	–	–	–	–	–	–	–
9 RWA at end	58,926	57,015	56,339	55,017	54,451	54,049	49,915

(1) The Book size item reflects organic changes in book size and composition (including new loans and maturing loans). RWA movements attributable to book size include increases or decreases in exposures, measured by exposure at default, assuming a stable risk profile.

(2) The Book quality item is the Bank's best estimate of changes in book quality related to experience, such as underlying customer behaviour or demographics, including changes resulting from model recalibrations or realignments and also including risk mitigation factors.

(3) The Model updates item is used to reflect implementations of new models, changes in model scope, and any other change applied to address model malfunctions.

(4) The Methodology and policy item presents the impact of changes in calculation methods resulting from changes in regulatory policies as a result, for example, of new regulations.

(5) The Acquisitions and disposals item includes the impact of the acquisition and/or the disposal of entities.

(6) The Foreign exchange movements item is driven by market movements such as foreign exchange movements.

(7) The Other item captures changes that cannot be attributed to any other category.

AIRB Credit Risk Exposure – Backtesting⁽¹⁾

(millions of Canadian dollars)

	2021												
	Q3						Q2						
	PD average estimated (%)	PD actual (%)	LGD average estimated (%) ⁽²⁾	LGD actual (%) ⁽³⁾	EAD estimated (%) ⁽⁴⁾	EAD actual (%) ⁽⁴⁾	PD average estimated (%)	PD actual (%)	LGD average estimated (%) ⁽²⁾	LGD actual (%) ⁽³⁾	EAD estimated (%) ⁽⁴⁾	EAD actual (%) ⁽⁴⁾	
Retail Portfolio⁽⁵⁾													
Insured residential mortgages ⁽⁶⁾	1.11%	0.22%	2.64%	n.a.	n.a.	n.a.	0.95%	0.36%	2.64%	n.a.	n.a.	n.a.	n.a.
Uninsured residential mortgages incl. HELOCs ⁽⁷⁾	0.40%	0.12%	20.64%	3.09%	89.41%	86.10%	0.37%	0.19%	20.14%	2.99%	88.78%	84.84%	84.84%
Qualifying revolving retail	1.06%	0.77%	82.05%	71.03%	106.06%	90.13%	1.26%	0.82%	81.89%	71.40%	106.99%	93.49%	93.49%
Other retail	1.77%	0.82%	43.14%	26.75%	79.02%	69.24%	1.91%	0.91%	43.59%	26.39%	82.16%	69.94%	69.94%
Non-Retail Portfolio⁽⁸⁾													
Corporate	1.06%	0.35%	28.78%	16.46%	84.46%	75.66%	0.99%	0.48%	27.38%	17.34%	83.91%	68.67%	68.67%
Sovereign ⁽⁹⁾	0.06%	0.00%	11.80%	n.a.	88.30%	n.a.	0.06%	0.00%	11.80%	n.a.	88.30%	n.a.	n.a.
Financial Institutions ⁽⁹⁾	0.45%	0.00%	39.00%	n.a.	100.00%	n.a.	0.45%	0.00%	39.00%	n.a.	100.00%	n.a.	n.a.

	2021						2020						
	Q1						Q4						
	PD average estimated (%)	PD actual (%)	LGD average estimated (%) ⁽²⁾	LGD actual (%) ⁽³⁾	EAD estimated (%) ⁽⁴⁾	EAD actual (%) ⁽⁴⁾	PD average estimated (%)	PD actual (%)	LGD average estimated (%) ⁽²⁾	LGD actual (%) ⁽³⁾	EAD estimated (%) ⁽⁴⁾	EAD actual (%) ⁽⁴⁾	
Retail Portfolio⁽⁵⁾													
Insured residential mortgages ⁽⁶⁾	0.88%	0.54%	2.64%	n.a.	n.a.	n.a.	0.89%	0.60%	2.64%	n.a.	n.a.	n.a.	n.a.
Uninsured residential mortgages incl. HELOCs ⁽⁷⁾	0.35%	0.30%	19.73%	3.15%	89.83%	84.51%	0.34%	0.28%	19.51%	4.20%	92.32%	86.17%	86.17%
Qualifying revolving retail	1.26%	0.98%	82.33%	72.66%	107.44%	93.58%	1.27%	1.12%	82.94%	74.48%	107.58%	93.05%	93.05%
Other retail	1.76%	1.05%	68.60%	49.28%	83.54%	74.23%	1.64%	1.12%	67.76%	50.57%	96.16%	79.82%	79.82%
Non-Retail Portfolio⁽⁸⁾													
Corporate	0.98%	0.50%	32.89%	20.76%	82.52%	72.65%	1.11%	0.48%	39.57%	30.88%	81.95%	75.57%	75.57%
Sovereign ⁽⁹⁾	0.06%	0.00%	11.54%	n.a.	88.30%	n.a.	0.06%	0.00%	11.54%	n.a.	88.30%	n.a.	n.a.
Financial Institutions ⁽⁹⁾	0.46%	0.00%	40.75%	n.a.	100.00%	n.a.	0.48%	0.00%	40.75%	n.a.	100.00%	n.a.	n.a.

(1) Estimated PD and actual default rates are consistent with what is presented in table CR9 (presented annually). Actual and estimated LGD and EAD parameters are reported on a one-month lag. For example, for Q3 2021, estimated percentages are as of June 30, 2020 and actual percentages reflect experience in the following 12 months.

(2) Estimated LGD reflects loss estimates under a downturn economic scenario and is based on defaulted accounts.

(3) Actual LGD includes indirect costs and discount rate and is based on defaulted accounts on which recovery process is completed.

(4) Estimated and actual EAD are computed for revolving products only and are based on defaulted accounts.

(5) Retail PD and EAD are based on account weighted average whilst retail LGD is based on exposure weighted average.

(6) Actual LGD for insured residential mortgages is not applicable to reflect the credit risk mitigation from government backed entities.

(7) Actual and estimated EAD for residential mortgage is computed only for HELOCs since the conventional residential mortgages are non-revolving.

(8) Wholesale and Sovereign's PD is based on borrower weighted average whilst the LGD and EAD are based on facility weighted average.

(9) Actual LGD for the financial institutions and sovereign are not applicable because no defaulted facilities recovery were completed during the period. Actual EAD are not applicable because no default was observed during the period.

CR10 – IRB – Specialised Lending and Equities Under the Simple Risk Weight Method

(millions of Canadian dollars)

	Q3 2021					Q2 2021				
	On-balance sheet amount	Off-balance sheet amount	RW	Exposure amount	RWA	On-balance sheet amount	Off-balance sheet amount	RW	Exposure amount	RWA
Equities under the materiality exemption	894	130	100%	959	1,016	1,032	108	100%	1,086	1,151

	Q1 2021					Q4 2020				
	On-balance sheet amount	Off-balance sheet amount	RW	Exposure amount	RWA	On-balance sheet amount	Off-balance sheet amount	RW	Exposure amount	RWA
Equities under the materiality exemption	994	107	100%	1,048	1,111	957	88	100%	1,000	1,060

CCR1 – Analysis of Counterparty Credit Risk (CCR) Exposure by Approach⁽¹⁾

(millions of Canadian dollars)

The following tables provide a comprehensive view of the methods used to calculate counterparty credit risk regulatory requirements and the main parameters used within each method.

		Q3 2021						Q2 2021					
		a	b	c	d	e	f	a	b	c	d	e	f
		Replacement cost	Potential future exposure	EEPE ⁽²⁾	Alpha used for computing regulatory EAD	EAD post-CRM	RWA	Replacement cost	Potential future exposure	EEPE ⁽²⁾	Alpha used for computing regulatory EAD	EAD post-CRM	RWA
1	SA-CCR (for derivatives)	4,199	8,269		1.4	17,455	5,676	2,843	7,168		1.4	14,016	5,204
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)												
5	VaR for SFTs					12,496	1,346					13,050	1,506
6	Total						7,022						6,710

		Q1 2021						Q4 2020					
		a	b	c	d	e	f	a	b	c	d	e	f
		Replacement cost	Potential future exposure	EEPE ⁽²⁾	Alpha used for computing regulatory EAD	EAD post-CRM	RWA	Replacement cost	Potential future exposure	EEPE ⁽²⁾	Alpha used for computing regulatory EAD	EAD post-CRM	RWA
1	SA-CCR (for derivatives)	3,428	7,434		1.4	15,207	5,256	3,382	6,886		1.4	14,375	4,702
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)												
5	VaR for SFTs					12,384	1,422					9,907	1,276
6	Total						6,678						5,978

(1) Excluding exposure and RWA for qualified central counterparties (QCCPs) and credit valuation adjustment (CVA).

(2) EEPE: Effective Expected Positive Exposure.

CCR2 – Credit Valuation Adjustment (CVA) Capital Charge

(millions of Canadian dollars)

The following table provides the CVA regulatory calculations (with a breakdown by standardised and advanced approaches).

		Q3 2021		Q2 2021		Q1 2021		Q4 2020		Q3 2020	
		a	b	a	b	a	b	a	b	a	b
		EAD post-CRM	RWA	EAD post-CRM	RWA	EAD post-CRM	RWA	EAD post-CRM	RWA	EAD post-CRM	RWA
	Total portfolios subject to the Advanced CVA capital charge										
1	(i) VaR component (including the 3 x multiplier)		-		-		-		-		-
2	(ii) Stressed VaR component (including the 3 x multiplier)		-		-		-		-		-
3	All portfolios subject to the Standardised CVA capital charge	11,134	2,046	9,795	1,716	10,629	1,337	10,047	1,612	10,088	1,664
4	Total subject to the CVA capital charge	11,134	2,046	9,795	1,716	10,629	1,337	10,047	1,612	10,088	1,664

CCR3 – Standardised Approach – CCR Exposures by Regulatory Portfolio and Risk Weights

(millions of Canadian dollars)

The following tables provide a breakdown of counterparty credit risk exposures calculated according to the standardised approach: by portfolio (type of counterparties) and by risk weights (riskiness attributed according to standardised approach).

		Q3 2021									Q2 2021								
		a	b	c	d	e	f	g	h	i	a	b	c	d	e	f	g	h	i
Risk weight		0%	10%	20%	50%	75%	100%	150%	Others	Total credit exposure	0%	10%	20%	50%	75%	100%	150%	Others	Total credit exposure
Regulatory portfolio		0%	10%	20%	50%	75%	100%	150%	Others	Total credit exposure	0%	10%	20%	50%	75%	100%	150%	Others	Total credit exposure
Sovereigns		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Non-central government public sector entities (PSEs)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Multilateral development banks (MDBs)		6	-	-	-	-	-	-	-	6	5	-	-	-	-	-	-	-	5
Financial institutions		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Securities firms		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Corporates		-	-	-	-	-	663	-	-	663	-	-	-	-	-	608	-	-	608
Regulatory retail portfolios		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other assets ⁽¹⁾		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total		6	-	-	-	-	663	-	-	669	5	-	-	-	-	608	-	-	613

		Q1 2021									Q4 2020								
		a	b	c	d	e	f	g	h	i	a	b	c	d	e	f	g	h	i
Risk weight		0%	10%	20%	50%	75%	100%	150%	Others	Total credit exposure	0%	10%	20%	50%	75%	100%	150%	Others	Total credit exposure
Regulatory portfolio		0%	10%	20%	50%	75%	100%	150%	Others	Total credit exposure	0%	10%	20%	50%	75%	100%	150%	Others	Total credit exposure
Sovereigns		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Non-central government public sector entities (PSEs)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Multilateral development banks (MDBs)		2	-	-	-	-	-	-	-	2	3	-	-	-	-	-	-	-	3
Financial institutions		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Securities firms		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Corporates		-	-	-	-	-	634	-	-	634	-	-	-	-	-	632	-	-	632
Regulatory retail portfolios		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other assets ⁽¹⁾		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total		2	-	-	-	-	634	-	-	636	3	-	-	-	-	632	-	-	635

(1) Excluding the exposures to CCPs, which are reported in CCR8.

CCR4 – IRB – CCR Exposures by Portfolio and PD Scale

(millions of Canadian dollars)

The following tables provide all relevant parameters used for the calculation of counterparty credit risk capital requirements for IRB models.

		Q3 2021						
PD scale ⁽¹⁾		a	b	c	d	e	f	g
		EAD post-CRM	Average PD ⁽²⁾	Number of obligors ⁽³⁾	Average LGD ⁽⁴⁾	Average maturity ⁽⁵⁾	RWA	RWA density ⁽⁶⁾
Corporate	0.00 to < 0.15	2,110	0.07%	460	47.1%	0.82	404	19.1%
	0.15 to < 0.25	3,066	0.20%	498	45.5%	1.54	1,224	39.9%
	0.25 to < 0.50	1,085	0.36%	257	43.4%	1.56	537	49.5%
	0.50 to < 0.75	1,252	0.56%	220	41.8%	2.57	612	48.9%
	0.75 to < 2.50	3,210	0.93%	659	42.7%	1.23	1,247	38.8%
	2.50 to < 10.00	207	4.08%	63	64.3%	1.11	360	173.9%
	10.00 to < 100.00	1	14.40%	2	20.9%	1.42	1	100.0%
	100.00 (Default)	2	100.00%	4	43.2%	1.00	2	100.0%
Sub-total	10,933	0.54%	2,163	44.7%	1.42	4,387	40.1%	
Sovereign	0.00 to < 0.15	9,968	0.03%	138	11.8%	1.08	170	1.7%
	0.15 to < 0.25	77	0.21%	2	13.1%	0.05	5	6.5%
	0.25 to < 0.50	-	0%	-	0%	-	-	0%
	0.50 to < 0.75	-	0%	-	0%	-	-	0%
	0.75 to < 2.50	-	0%	-	0%	-	-	0%
	2.50 to < 10.00	-	0%	-	0%	-	-	0%
	10.00 to < 100.00	-	0%	-	0%	-	-	0%
	100.00 (Default)	-	0%	-	0%	-	-	0%
Sub-total	10,045	0.03%	140	11.8%	1.07	175	1.7%	
Financial institutions	0.00 to < 0.15	7,265	0.06%	66	49.9%	0.71	1,275	17.5%
	0.15 to < 0.25	821	0.16%	35	49.7%	0.76	295	35.9%
	0.25 to < 0.50	250	0.36%	12	49.5%	0.26	113	45.2%
	0.50 to < 0.75	102	0.56%	13	48.1%	0.49	60	58.8%
	0.75 to < 2.50	69	1.14%	20	48.8%	0.14	54	78.3%
	2.50 to < 10.00	-	0%	-	0%	-	-	0%
	10.00 to < 100.00	-	0%	-	0%	-	-	0%
	100.00 (Default)	-	0%	-	0%	-	-	0%
Sub-total	8,507	0.09%	146	49.9%	0.69	1,797	21.1%	
Total (sum of portfolios)	29,485	0.24%	2,449	35.0%	1.07	6,359	21.6%	

(1) Prescribed PD bands based on BIS document on Revised Pillar 3 disclosure requirements issued in January 2015.

(2) Represents the obligor grade PD weighted by EAD.

(3) Represents the number of individual borrowers.

(4) Represents the obligor grade LGD (net of any CRM effect) weighted by EAD.

(5) Represents the obligor maturity in years weighted by EAD. This parameter needs to be filled in only when it is used for the RWA calculation.

(6) Total risk-weighted assets to EAD post-CRM.

CCR4 – IRB – CCR Exposures by Portfolio and PD Scale (continued)

(millions of Canadian dollars)

		Q4 2020							
PD scale ⁽¹⁾	a	b	c	d	e	f	g		
	EAD post-CRM	Average PD ⁽²⁾	Number of obligors ⁽³⁾	Average LGD ⁽⁴⁾	Average maturity ⁽⁵⁾	RWA	RWA density ⁽⁶⁾		
Corporate	0.00 to < 0.15	2,068	0.07%	499	48.1%	0.76	392	19.0%	
	0.15 to < 0.25	2,544	0.19%	517	40.5%	2.21	856	33.6%	
	0.25 to < 0.50	913	0.36%	254	43.8%	1.92	488	53.5%	
	0.50 to < 0.75	747	0.56%	213	35.3%	1.90	371	49.7%	
	0.75 to < 2.50	1,503	0.90%	725	39.3%	1.52	1,038	69.1%	
	2.50 to < 10.00	320	4.50%	80	41.4%	1.34	404	126.3%	
	10.00 to < 100.00	1	13.90%	4	51.3%	1.00	2	200.0%	
	100.00 (Default)	11	100.00%	3	38.3%	1.00	15	136.4%	
	Sub-total	8,107	0.65%	2,295	42.2%	1.61	3,566	44.0%	
Sovereign	0.00 to < 0.15	7,169	0.03%	153	11.8%	1.37	144	2.0%	
	0.15 to < 0.25	76	0.21%	1	13.1%	0.01	5	6.6%	
	0.25 to < 0.50	-	0%	-	0%	-	-	0%	
	0.50 to < 0.75	-	0%	-	0%	-	-	0%	
	0.75 to < 2.50	-	0%	-	0%	-	-	0%	
	2.50 to < 10.00	-	0%	-	0%	-	-	0%	
	10.00 to < 100.00	-	0%	-	0%	-	-	0%	
	100.00 (Default)	-	0%	-	0%	-	-	0%	
	Sub-total	7,245	0.03%	154	11.8%	1.36	149	2.1%	
Financial institutions	0.00 to < 0.15	6,614	0.06%	65	50.8%	0.45	911	13.8%	
	0.15 to < 0.25	1,462	0.17%	39	46.3%	0.84	522	35.7%	
	0.25 to < 0.50	221	0.36%	13	49.7%	0.28	93	42.1%	
	0.50 to < 0.75	109	0.56%	11	48.3%	0.26	63	57.8%	
	0.75 to < 2.50	42	1.30%	20	46.5%	1.09	42	100.0%	
	2.50 to < 10.00	-	0%	-	0%	-	-	0%	
	10.00 to < 100.00	-	0%	-	0%	-	-	0%	
	100.00 (Default)	-	0%	-	0%	-	-	0%	
	Sub-total	8,448	0.10%	148	49.9%	0.51	1,631	19.3%	
Total (sum of portfolios)		23,800	0.27%	2,597	36.0%	1.03	5,346	22.5%	

(1) Prescribed PD bands based on BIS document on Revised Pillar 3 disclosure requirements issued in January 2015.

(2) Represents the obligor grade PD weighted by EAD.

(3) Represents the number of individual borrowers.

(4) Represents the obligor grade LGD (net of any CRM effect) weighted by EAD.

(5) Represents the obligor maturity in years weighted by EAD. This parameter needs to be filled in only when it is used for the RWA calculation.

(6) Total risk-weighted assets to EAD post-CRM.

CCR5 – Composition of Collateral for CCR Exposure

(millions of Canadian dollars)

The following tables provide a breakdown of all types of collateral posted or received by banks to support or reduce the counterparty credit risk exposures related to derivative transactions or to SFTs, including transactions cleared through a CCP.

	Q3 2021						Q2 2021					
	a	b	c	d	e	f	a	b	c	d	e	f
	Collateral used in derivative transactions				Collateral used in SFTs		Collateral used in derivative transactions				Collateral used in SFTs	
	Fair value of collateral received		Fair value of posted collateral		Fair value of collateral received ⁽¹⁾	Fair value of posted collateral ⁽¹⁾	Fair value of collateral received		Fair value of posted collateral		Fair value of collateral received ⁽¹⁾	Fair value of posted collateral ⁽¹⁾
Segregated	Unsegregated	Segregated	Unsegregated			Segregated	Unsegregated	Segregated	Unsegregated			
Cash	–	9,891	–	2,274	28,099	11,643	–	10,190	–	2,598	29,331	13,311
Securities issued or guaranteed by												
Canadian government	18	566	–	756	14,239	14,359	–	712	–	607	7,861	10,431
Canadian provincial and municipal governments	218	152	–	75	7,047	10,563	–	225	–	279	11,484	15,172
U.S. Treasury, other U.S. agencies and other foreign governments	96	43	–	34	33,210	23,939	100	80	–	–	34,529	29,988
Other debt securities	–	35	–	–	1,594	470	–	34	–	–	1,423	499
Equity securities	–	–	–	–	50,116	76,892	–	–	–	–	53,835	71,755
Total	332	10,687	–	3,139	134,305	137,866	100	11,241	–	3,484	138,463	141,156

	Q1 2021						Q4 2020					
	a	b	c	d	e	f	a	b	c	d	e	f
	Collateral used in derivative transactions				Collateral used in SFTs		Collateral used in derivative transactions				Collateral used in SFTs	
	Fair value of collateral received		Fair value of posted collateral		Fair value of collateral received ⁽¹⁾	Fair value of posted collateral ⁽¹⁾	Fair value of collateral received		Fair value of posted collateral		Fair value of collateral received ⁽¹⁾	Fair value of posted collateral ⁽¹⁾
Segregated	Unsegregated	Segregated	Unsegregated			Segregated	Unsegregated	Segregated	Unsegregated			
Cash	–	9,600	–	1,723	31,146	15,840	–	10,046	–	1,861	29,253	15,472
Securities issued or guaranteed by												
Canadian government	4	346	–	1,530	8,160	12,433	6	215	–	1,752	9,050	10,323
Canadian provincial and municipal governments	–	100	–	205	16,259	20,180	–	145	–	62	15,296	19,040
U.S. Treasury, other U.S. agencies and other foreign governments	94	99	–	155	40,015	33,912	60	66	–	126	32,990	33,558
Other debt securities	–	38	–	–	1,117	1,362	–	60	–	–	1,111	332
Equity securities	–	–	–	–	52,811	69,081	–	–	–	–	48,212	59,554
Total	98	10,183	–	3,613	149,508	152,808	66	10,532	–	3,801	135,912	138,279

(1) Excluding collateral from repurchase agreements guaranteed by bearer deposit notes issued by the Bank and covered bonds issued by the Bank.

CCR6 – Credit Derivatives Exposures

(millions of Canadian dollars)

The following tables illustrate the extent of a bank's exposures to credit derivative transactions broken down between derivatives purchased or sold.

	Q3 2021		Q2 2021		Q1 2021		Q4 2020		Q3 2020	
	a	b	a	b	a	b	a	b	a	b
	Protection purchased	Protection sold	Protection purchased	Protection sold	Protection purchased	Protection sold	Protection purchased	Protection sold	Protection purchased	Protection sold
Notionals										
Credit default swaps										
Indices, singles names and other	2,417	246	2,091	545	2,234	358	5,632	4,024	5,339	3,449
Tranches on indices	-	-	-	-	-	-	-	-	-	-
Total return swaps	92	-	92	-	92	-	-	-	-	-
Credit options	-	-	-	-	-	-	-	-	-	-
Other credit derivatives	-	-	-	-	-	-	-	-	-	-
Total notionals	2,509	246	2,183	545	2,326	358	5,632	4,024	5,339	3,449
Fair values										
Positive fair value (asset)	7	8	11	16	2	8	13	28	19	52
Negative fair value (liability)	(64)	-	(57)	-	(55)	-	(58)	(1)	(83)	-

CCR8 – Exposures to Central Counterparties (CCP)⁽¹⁾

(millions of Canadian dollars)

The following table provides a comprehensive picture of the bank's exposures to central counterparties. In particular, the template includes all types of exposures and related capital requirements.

		Q3 2021		Q2 2021		Q1 2021		Q4 2020		Q3 2020	
		a	b	a	b	a	b	a	b	a	b
		EAD (post-CRM)	RWA	EAD (post-CRM)	RWA	EAD (post-CRM)	RWA	EAD (post-CRM)	RWA	EAD (post-CRM)	RWA
1	Exposures to QCCPs (total)		432		296		232		171		139
2	Exposures for trades at QCCPs (excluding initial margin and default fund contributions); of which	2,674	53	2,791	56	2,778	56	2,436	48	1,350	27
3	(i) OTC derivatives	228	5	210	4	227	5	48	1	49	1
4	(ii) Exchange-traded derivatives	1,880	37	1,795	36	2,385	48	2,119	42	1,174	23
5	(iii) Securities financing transactions	566	11	786	16	166	3	269	5	127	3
6	(iv) Netting sets where cross-product netting has been approved	-	-	-	-	-	-	-	-	-	-
7	Segregated initial margin	5,122		6,087		5,891		5,536		4,856	
8	Non-segregated initial margin	436	-	385	-	685	-	561	-	401	-
9	Pre-funded default fund contributions	722	379	642	240	590	176	484	123	393	112
10	Unfunded default fund contributions	-	-	-	-	-	-	-	-	-	-

(1) The Bank has no exposure to non-qualifying central counterparties.

SEC1 – Securitization Exposures in the Banking Book

(millions of Canadian dollars)

The following tables present the bank's securitization exposures in its banking book.

		Q3 2021								
		a	b	c	e	f	g	i	j	k
		Bank acts as originator			Bank acts as sponsor			Banks acts as investor ⁽¹⁾		
		Traditional	Synthetic ⁽²⁾	Sub-total	Traditional	Synthetic ⁽²⁾	Sub-total	Traditional	Synthetic ⁽²⁾	Sub-total
1	Retail	1,071	-	1,071	2,888	-	2,888	907	-	907
	Of which :									
2	Residential mortgages	-	-	-	2,198	-	2,198	49	-	49
3	Credit card	1,071	-	1,071	-	-	-	107	-	107
4	Other retail exposures	-	-	-	690	-	690	751	-	751
5	Re-securitization	-	-	-	-	-	-	-	-	-
6	Non-Retail	-	-	-	534	-	534	637	-	637
	Of which :									
7	Loans to corporates	-	-	-	-	-	-	-	-	-
8	Commercial mortgage	-	-	-	-	-	-	4	-	4
9	Lease and receivables	-	-	-	528	-	528	633	-	633
10	Other wholesale	-	-	-	6	-	6	-	-	-
11	Re-securitization	-	-	-	-	-	-	-	-	-

		Q2 2021								
		a	b	c	e	f	g	i	j	k
		Bank acts as originator			Bank acts as sponsor			Banks acts as investor ⁽¹⁾		
		Traditional	Synthetic ⁽²⁾	Sub-total	Traditional	Synthetic ⁽²⁾	Sub-total	Traditional	Synthetic ⁽²⁾	Sub-total
1	Retail	1,071	-	1,071	3,033	-	3,033	813	-	813
	Of which :									
2	Residential mortgages	-	-	-	2,325	-	2,325	50	-	50
3	Credit card	1,071	-	1,071	-	-	-	12	-	12
4	Other retail exposures	-	-	-	708	-	708	751	-	751
5	Re-securitization	-	-	-	-	-	-	-	-	-
6	Non-Retail	-	-	-	376	-	376	647	-	647
	Of which :									
7	Loans to corporates	-	-	-	-	-	-	-	-	-
8	Commercial mortgage	-	-	-	-	-	-	4	-	4
9	Lease and receivables	-	-	-	369	-	369	643	-	643
10	Other wholesale	-	-	-	7	-	7	-	-	-
11	Re-securitization	-	-	-	-	-	-	-	-	-

(1) Represents the investment positions purchased in third-party deals.

(2) The Bank has no synthetic securitization exposure.

SEC1 – Securitization Exposures in the Banking Book (continued)

(millions of Canadian dollars)

		Q1 2021								
		a	b	c	e	f	g	i	j	k
		Bank acts as originator			Bank acts as sponsor			Banks acts as investor ⁽¹⁾		
		Traditional	Synthetic ⁽²⁾	Sub-total	Traditional	Synthetic ⁽²⁾	Sub-total	Traditional	Synthetic ⁽²⁾	Sub-total
1	Retail	1,071	-	1,071	3,111	-	3,111	798	-	798
	Of which :									
2	Residential mortgages	-	-	-	2,495	-	2,495	52	-	52
3	Credit card	1,071	-	1,071	-	-	-	12	-	12
4	Other retail exposures	-	-	-	616	-	616	734	-	734
5	Re-securitization	-	-	-	-	-	-	-	-	-
6	Non-Retail	-	-	-	241	-	241	649	-	649
	Of which :									
7	Loans to corporates	-	-	-	-	-	-	-	-	-
8	Commercial mortgage	-	-	-	-	-	-	4	-	4
9	Lease and receivables	-	-	-	233	-	233	645	-	645
10	Other wholesale	-	-	-	8	-	8	-	-	-
11	Re-securitization	-	-	-	-	-	-	-	-	-

		Q4 2020								
		a	b	c	e	f	g	i	j	k
		Bank acts as originator			Bank acts as sponsor			Banks acts as investor ⁽¹⁾		
		Traditional	Synthetic ⁽²⁾	Sub-total	Traditional	Synthetic ⁽²⁾	Sub-total	Traditional	Synthetic ⁽²⁾	Sub-total
1	Retail	1,071	-	1,071	3,228	-	3,228	715	-	715
	Of which :									
2	Residential mortgages	-	-	-	2,708	-	2,708	203	-	203
3	Credit card	1,071	-	1,071	-	-	-	12	-	12
4	Other retail exposures	-	-	-	520	-	520	500	-	500
5	Re-securitization	-	-	-	-	-	-	-	-	-
6	Non-Retail	-	-	-	247	-	247	793	-	793
	Of which :									
7	Loans to corporates	-	-	-	-	-	-	-	-	-
8	Commercial mortgage	-	-	-	-	-	-	6	-	6
9	Lease and receivables	-	-	-	233	-	233	787	-	787
10	Other wholesale	-	-	-	14	-	14	-	-	-
11	Re-securitization	-	-	-	-	-	-	-	-	-

(1) Represents the investment positions purchased in third-party deals.

(2) The Bank has no synthetic securitization exposure.

SEC2 – Securitization Exposures in the Trading Book

(millions of Canadian dollars)

The following tables present the bank's securitization exposures in its trading book.

		Q3 2021								
		a	b	c	e	f	g	i	j	k
		Bank acts as originator			Bank acts as sponsor			Banks acts as investor ⁽¹⁾		
		Traditional	Synthetic ⁽²⁾	Sub-total	Traditional	Synthetic ⁽²⁾	Sub-total	Traditional	Synthetic ⁽²⁾	Sub-total
1	Retail	-	-	-	7	-	7	17	-	17
	Of which :									
2	Residential mortgages	-	-	-	5	-	5	-	-	-
3	Credit card	-	-	-	-	-	-	17	-	17
4	Other retail exposures	-	-	-	2	-	2	-	-	-
5	Re-securitization	-	-	-	-	-	-	-	-	-
6	Non-Retail	-	-	-	1	-	1	16	-	16
	Of which :									
7	Loans to corporates	-	-	-	-	-	-	-	-	-
8	Commercial mortgage	-	-	-	-	-	-	12	-	12
9	Lease and receivables	-	-	-	1	-	1	4	-	4
10	Other wholesale	-	-	-	-	-	-	-	-	-
11	Re-securitization	-	-	-	-	-	-	-	-	-

		Q2 2021								
		a	b	c	e	f	g	i	j	k
		Bank acts as originator			Bank acts as sponsor			Banks acts as investor ⁽¹⁾		
		Traditional	Synthetic ⁽²⁾	Sub-total	Traditional	Synthetic ⁽²⁾	Sub-total	Traditional	Synthetic ⁽²⁾	Sub-total
1	Retail	-	-	-	5	-	5	11	-	11
	Of which :									
2	Residential mortgages	-	-	-	4	-	4	-	-	-
3	Credit card	-	-	-	-	-	-	11	-	11
4	Other retail exposures	-	-	-	1	-	1	-	-	-
5	Re-securitization	-	-	-	-	-	-	-	-	-
6	Non-Retail	-	-	-	1	-	1	15	-	15
	Of which :									
7	Loans to corporates	-	-	-	-	-	-	-	-	-
8	Commercial mortgage	-	-	-	-	-	-	12	-	12
9	Lease and receivables	-	-	-	1	-	1	3	-	3
10	Other wholesale	-	-	-	-	-	-	-	-	-
11	Re-securitization	-	-	-	-	-	-	-	-	-

(1) Represents the investment positions purchased in third-party deals.

(2) The Bank has no synthetic securitization exposure.

SEC2 – Securitization Exposures in the Trading Book (continued)

(millions of Canadian dollars)

		Q1 2021								
		a	b	c	e	f	g	i	j	k
		Bank acts as originator			Bank acts as sponsor			Banks acts as investor ⁽¹⁾		
		Traditional	Synthetic ⁽²⁾	Sub-total	Traditional	Synthetic ⁽²⁾	Sub-total	Traditional	Synthetic ⁽²⁾	Sub-total
1	Retail	-	-	-	28	-	28	11	-	11
	Of which :									
2	Residential mortgages	-	-	-	22	-	22	-	-	-
3	Credit card	-	-	-	-	-	-	11	-	11
4	Other retail exposures	-	-	-	6	-	6	-	-	-
5	Re-securitization	-	-	-	-	-	-	-	-	-
6	Non-Retail	-	-	-	2	-	2	25	-	25
	Of which :									
7	Loans to corporates	-	-	-	-	-	-	-	-	-
8	Commercial mortgage	-	-	-	-	-	-	12	-	12
9	Lease and receivables	-	-	-	2	-	2	13	-	13
10	Other wholesale	-	-	-	-	-	-	-	-	-
11	Re-securitization	-	-	-	-	-	-	-	-	-

		Q4 2020								
		a	b	c	e	f	g	i	j	k
		Bank acts as originator			Bank acts as sponsor			Banks acts as investor ⁽¹⁾		
		Traditional	Synthetic ⁽²⁾	Sub-total	Traditional	Synthetic ⁽²⁾	Sub-total	Traditional	Synthetic ⁽²⁾	Sub-total
1	Retail	-	-	-	21	-	21	18	-	18
	Of which :									
2	Residential mortgages	-	-	-	17	-	17	-	-	-
3	Credit card	-	-	-	-	-	-	18	-	18
4	Other retail exposures	-	-	-	4	-	4	-	-	-
5	Re-securitization	-	-	-	-	-	-	-	-	-
6	Non-Retail	-	-	-	2	-	2	13	-	13
	Of which :									
7	Loans to corporates	-	-	-	-	-	-	-	-	-
8	Commercial mortgage	-	-	-	-	-	-	12	-	12
9	Lease and receivables	-	-	-	2	-	2	1	-	1
10	Other wholesale	-	-	-	-	-	-	-	-	-
11	Re-securitization	-	-	-	-	-	-	-	-	-

(1) Represents the investment positions purchased in third-party deals.

(2) The Bank has no synthetic securitization exposure.

SEC 3 – Securitization Exposures in the Banking Book and Associated Regulatory Capital Requirements⁽¹⁾ – Bank Acting as Originator or as Sponsor

(millions of Canadian dollars)

The following tables present securitization in the banking book when the bank acts as originator or sponsor and the associated capital requirements.

		Q3 2021																
		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q
		Exposure values (by RW bands)				Exposure values (by regulatory approach)				RWA (by regulatory approach) ⁽²⁾				Capital charge after cap				
		≤ 20% RW	> 20% to 50% RW	>50% to 100% RW	>100% to 1250% RW	1250% RW	IRBA	ERBA/IAA	SA/SSFA	1250%	IRBA	ERBA/IAA	SA/SSFA	1250%	IRBA	ERBA/IAA	SA/SSFA	1250%
1	Total exposures	4,493	–	–	–	–	1,571	2,922	–	–	182	292	–	–	14	23	–	–
2	Traditional securitization	4,493	–	–	–	–	1,571	2,922	–	–	182	292	–	–	14	23	–	–
3	Of which securitization	4,493	–	–	–	–	1,571	2,922	–	–	182	292	–	–	14	23	–	–
4	Of which retail underlying	3,959	–	–	–	–	1,571	2,388	–	–	182	239	–	–	14	19	–	–
5	Of which wholesale	534	–	–	–	–	–	534	–	–	–	53	–	–	–	4	–	–
6	Of which re-securitization	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
7	Of which senior	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
8	Of which non-senior	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

		Q2 2021																
		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q
		Exposure values (by RW bands)				Exposure values (by regulatory approach)				RWA (by regulatory approach) ⁽²⁾				Capital charge after cap				
		≤ 20% RW	> 20% to 50% RW	>50% to 100% RW	>100% to 1250% RW	1250% RW	IRBA	ERBA/IAA	SA/SSFA	1250%	IRBA	ERBA/IAA	SA/SSFA	1250%	IRBA	ERBA/IAA	SA/SSFA	1250%
1	Total exposures	4,480	–	–	–	–	1,446	3,034	–	–	163	303	–	–	13	25	–	–
2	Traditional securitization	4,480	–	–	–	–	1,446	3,034	–	–	163	303	–	–	13	25	–	–
3	Of which securitization	4,480	–	–	–	–	1,446	3,034	–	–	163	303	–	–	13	25	–	–
4	Of which retail underlying	4,104	–	–	–	–	1,446	2,658	–	–	163	265	–	–	13	22	–	–
5	Of which wholesale	376	–	–	–	–	–	376	–	–	–	38	–	–	–	3	–	–
6	Of which re-securitization	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
7	Of which senior	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
8	Of which non-senior	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

(1) The Bank has no synthetic securitization exposure.

(2) RWA amounts do not include the transitional arrangement related amount.

SEC 3 – Securitization Exposures in the Banking Book and Associated Regulatory Capital Requirements⁽¹⁾ – Bank Acting as Originator or as Sponsor (continued)

(millions of Canadian dollars)

		Q1 2021																
		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q
		Exposure values (by RW bands)					Exposure values (by regulatory approach)				RWA (by regulatory approach) ⁽²⁾				Capital charge after cap			
		≤ 20% RW	> 20% to 50% RW	>50% to 100% RW	>100% to 1250% RW	1250% RW	IRBA	ERBA/IAA	SA/SSFA	1250%	IRBA	ERBA/IAA	SA/SSFA	1250%	IRBA	ERBA/IAA	SA/SSFA	1250%
1	Total exposures	4,423	-	-	-	-	1,321	3,102	-	-	145	309	-	-	11	25	-	-
2	Traditional securitization	4,423	-	-	-	-	1,321	3,102	-	-	145	309	-	-	11	25	-	-
3	Of which securitization	4,423	-	-	-	-	1,321	3,102	-	-	145	309	-	-	11	25	-	-
4	Of which retail underlying	4,182	-	-	-	-	1,321	2,861	-	-	145	285	-	-	11	23	-	-
5	Of which wholesale	241	-	-	-	-	-	241	-	-	-	24	-	-	-	2	-	-
6	Of which re-securitization	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	Of which senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	Of which non-senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

		Q4 2020																
		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q
		Exposure values (by RW bands)					Exposure values (by regulatory approach)				RWA (by regulatory approach) ⁽²⁾				Capital charge after cap			
		≤ 20% RW	> 20% to 50% RW	>50% to 100% RW	>100% to 1250% RW	1250% RW	IRBA	ERBA/IAA	SA/SSFA	1250%	IRBA	ERBA/IAA	SA/SSFA	1250%	IRBA	ERBA/IAA	SA/SSFA	1250%
1	Total exposures	4,546	-	-	-	-	1,320	3,226	-	-	144	322	-	-	12	25	-	-
2	Traditional securitization	4,546	-	-	-	-	1,320	3,226	-	-	144	322	-	-	12	25	-	-
3	Of which securitization	4,546	-	-	-	-	1,320	3,226	-	-	144	322	-	-	12	25	-	-
4	Of which retail underlying	4,299	-	-	-	-	1,320	2,979	-	-	144	297	-	-	12	23	-	-
5	Of which wholesale	247	-	-	-	-	-	247	-	-	-	25	-	-	-	2	-	-
6	Of which re-securitization	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	Of which senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	Of which non-senior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

(1) The Bank has no synthetic securitization exposure.

(2) RWA amounts do not include the transitional arrangement related amount.

SEC 4 – Securitization Exposures in the Banking Book and Associated Capital Requirements⁽¹⁾ – Bank Acting as Investor

(millions of Canadian dollars)

The following tables present securitization exposures in the banking book where the bank acts as investor and the associated capital requirements.

		Q3 2021																
		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q
		Exposure values (by RW bands)					Exposure values (by regulatory approach)				RWA (by regulatory approach) ⁽²⁾				Capital charge after cap			
		≤ 20% RW	> 20% to 50% RW	>50% to 100% RW	>100% to 1250% RW	1250% RW	IRBA	ERBA/IAA	SA/SSFA	1250%	IRBA	ERBA/IAA	SA/SSFA	1250%	IRBA	ERBA/IAA	SA/SSFA	1250%
1	Total exposures	1,488	23	33	–	–	49	700	795	–	7	98	119	–	1	8	10	–
2	Traditional securitization	1,488	23	33	–	–	49	700	795	–	7	98	119	–	1	8	10	–
3	Of which securitization	1,488	23	33	–	–	49	700	795	–	7	98	119	–	1	8	10	–
4	Of which retail underlying	888	19	–	–	–	49	63	795	–	7	15	119	–	1	1	10	–
5	Of which wholesale	600	4	33	–	–	–	637	–	–	–	83	–	–	–	–	–	–
6	Of which re-securitization	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
7	Of which senior	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
8	Of which non-senior	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

		Q2 2021																
		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q
		Exposure values (by RW bands)					Exposure values (by regulatory approach)				RWA (by regulatory approach) ⁽²⁾				Capital charge after cap			
		≤ 20% RW	> 20% to 50% RW	>50% to 100% RW	>100% to 1250% RW	1250% RW	IRBA	ERBA/IAA	SA/SSFA	1250%	IRBA	ERBA/IAA	SA/SSFA	1250%	IRBA	ERBA/IAA	SA/SSFA	1250%
1	Total exposures	1,395	22	43	–	–	51	709	700	–	8	104	105	–	1	8	8	–
2	Traditional securitization	1,395	22	43	–	–	51	709	700	–	8	104	105	–	1	8	8	–
3	Of which securitization	1,395	22	43	–	–	51	709	700	–	8	104	105	–	1	8	8	–
4	Of which retail underlying	795	18	–	–	–	51	62	700	–	8	15	105	–	1	1	8	–
5	Of which wholesale	600	4	43	–	–	–	647	–	–	–	89	–	–	–	–	–	–
6	Of which re-securitization	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
7	Of which senior	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
8	Of which non-senior	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

(1) The Bank has no synthetic securitization exposure.

(2) RWA amounts do not include the transitional arrangement related amount.

SEC 4 – Securitization Exposures in the Banking Book and Associated Capital Requirements⁽¹⁾

– Bank Acting as Investor (continued)

(millions of Canadian dollars)

		Q1 2021																
		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q
		Exposure values (by RW bands)					Exposure values (by regulatory approach)				RWA (by regulatory approach) ⁽²⁾				Capital charge after cap			
		≤ 20% RW	> 20% to 50% RW	>50% to 100% RW	>100% to 1250% RW	1250% RW	IRBA	ERBA/IAA	SA/SSFA	1250%	IRBA	ERBA/IAA	SA/SSFA	1250%	IRBA	ERBA/IAA	SA/SSFA	1250%
1	Total exposures	1,398	4	45	–	–	53	694	700	–	8	99	105	–	1	8	8	–
2	Traditional securitization	1,398	4	45	–	–	53	694	700	–	8	99	105	–	1	8	8	–
3	Of which securitization	1,398	4	45	–	–	53	694	700	–	8	99	105	–	1	8	8	–
4	Of which retail underlying	798	–	–	–	–	53	45	700	–	8	8	105	–	1	1	8	–
5	Of which wholesale	600	4	45	–	–	–	649	–	–	–	91	–	–	7	–	–	–
6	Of which re-securitization	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
7	Of which senior	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
8	Of which non-senior	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

		Q4 2020																
		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q
		Exposure values (by RW bands)					Exposure values (by regulatory approach)				RWA (by regulatory approach) ⁽²⁾				Capital charge after cap			
		≤ 20% RW	> 20% to 50% RW	>50% to 100% RW	>100% to 1250% RW	1250% RW	IRBA	ERBA/IAA	SA/SSFA	1250%	IRBA	ERBA/IAA	SA/SSFA	1250%	IRBA	ERBA/IAA	SA/SSFA	1250%
1	Total exposures	1,380	61	67	–	–	203	805	500	–	28	120	80	–	2	10	6	–
2	Traditional securitization	1,380	61	67	–	–	203	805	500	–	28	120	80	–	2	10	6	–
3	Of which securitization	1,380	61	67	–	–	203	805	500	–	28	120	80	–	2	10	6	–
4	Of which retail underlying	660	55	–	–	–	203	12	500	–	28	2	80	–	2	–	6	–
5	Of which wholesale	720	6	67	–	–	–	793	–	–	–	118	–	–	10	–	–	–
6	Of which re-securitization	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
7	Of which senior	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
8	Of which non-senior	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

(1) The Bank has no synthetic securitization exposure.

(2) RWA amounts do not include the transitional arrangement related amount.

Glossary

Advanced Internal Ratings-Based (AIRB) approach	See risk-weighted assets below.
Banking Book Equities	Banking book equities comprise mainly exposures held for strategic and other reasons.
Capital Ratio	The Bank's capital divided by risk-weighted assets. The Bank's capital can be either CET1 Capital, Tier 1 capital or Total capital, producing three different capital ratios.
Common Equity Tier 1 (CET1) capital	Common Equity Tier 1 capital consists of common shareholders' equity less goodwill, intangible assets and other capital deductions. Common Equity Tier 1 capital ratio is calculated by dividing Common Equity Tier 1 capital by risk-weighted assets.
Corporate	All direct credit risk exposures to corporations, partnerships and proprietorships, exposures guaranteed by those entities.
Credit Risk	Credit risk is the risk of a financial loss if an obligor does not fully honor its contractual commitments to the Bank. Obligor may be borrowers, issuers, counterparties or guarantors. Credit risk is the most significant risk facing the Bank in the normal course of business. The Bank is exposed to credit risk not only through its direct lending activities and transactions but also through commitments to extend credit, letters of guarantee, letters of credit, over-the-counter derivatives trading, available-for-sale debt securities, securities purchased under reverse repurchase agreements, deposits with financial institutions, brokerage activities and transactions carrying a settlement risk for the Bank such as irrevocable fund transfers to third parties via electronic payment systems.
Drawn exposure	The amount of credit risk exposure resulting from loans already advanced to the customer.
Exposure at default (EAD)	An estimate of the amount of exposure to a customer at the event of, and at the time of, default.
Financial institutions	All direct credit risk exposures to deposit-taking institutions and regulated securities firms, and exposures guaranteed by those entities.
Leverage ratio	The leverage ratio is calculated by dividing the amount of Tier 1 capital by the total exposure. Total exposure is defined as the sum of on-balance-sheet assets (including derivative exposures and securities financing transaction exposures) and off-balance-sheet items. Assets deducted from Tier 1 capital are also deducted from the total exposure.
Loss given default (LGD)	An estimate of the amount of exposure to a customer that will not be recovered following a default by that customer, expressed as a percentage of the exposure at default.
Market risk	Market risk is the risk of financial loss resulting from adverse movements in underlying market factors. Market risk at the Bank arises from its participation in market-making, trading, investment and asset/liability management activities.
Operational risk	Operational risk is the risk of loss resulting from an inadequacy or a failure ascribable to people, processes, technology or external events. Operational risks are present in every activity of the Bank. Theft, fraud, unauthorized transactions, system errors, human error, amendments to or misinterpretation of acts and regulations, litigation or disputes with clients or property damage are just a few examples of events likely to cause financial loss, harm the Bank's reputation or result in regulatory penalties or sanctions.
Other off-balance sheet	Letters of guarantee, documentary letters of credit and securitized assets that represent the Bank's commitment to make payments in the event that a client cannot meet its financial obligations to third parties.
Other retail	This exposure class includes consumer loans, SME credit card receivables, SME loans (excluding mortgages of five units or more), and other personal loans.
Over-the-counter derivatives (OTC)	The amount of credit risk exposure resulting from derivatives that trade directly between two counterparties, rather than through exchanges.
Probability of default (PD)	An estimate of the likelihood of default for any particular customer which occurs when that customer is not able to repay its obligations as they become contractually due.
Qualifying revolving retail (QRR)	This exposure class includes lines of credit and credit card receivables.
Repo-style transactions	Financial obligations related to securities sold (repos) or repurchased (reverse repos) pursuant to an agreement under which the securities will be repurchased (repos) or resold (reverse repos) on a specified date and at a specified price. Such an agreement is a form of short-term funding (repos) or collateralized lending (reverse repos). Repo-style transactions also include loaned and borrowed securities that are off-balance sheet.
Retail Residential Mortgage	This exposure class includes loans to individuals against residential property (four units or less) and lines of credit secured by equity in residential property (HELOC).
Risk-weighted assets (RWA)	Assets are risk weighted according to the guidelines established by the Office of the Superintendent of Financial Institutions. In the standardized calculation approach, factors are applied to the face value of certain assets in order to reflect comparable risk levels. In the advanced approach, risk-weighted assets are derived from the Bank's internal models which represents the Bank's own assessment of the risks it incurs. Off-balance sheet instruments are converted to balance sheet (or credit) equivalents by adjusting the notional values before applying the appropriate risk-weighting factors.
Scaling Factor	An add-on of 6% is applied as a calibration adjustment to the risk weighted assets amount for credit risk assessed under the AIRB approach.
Sovereign	All direct credit risk exposures to governments, central banks and certain public sector entities, and exposures guaranteed by those entities.
Standardized approach	See risk-weighted assets.
Tier 1 capital	Tier 1 capital ratio consists of Common Equity Tier 1 capital and Additional Tier 1 instruments, namely, eligible non-cumulative preferred shares and the eligible amount of innovative instruments. Tier 1 capital ratio is calculated by dividing Tier 1 capital by risk-weighted assets.
Tier 2 capital	Tier 2 capital mainly includes the qualifying portion of the subordinated debentures and the collective allowance on non-impaired loans eligible for credit risk.
Total capital	Total capital is the sum of Tier 1 and Tier 2 capital. Total capital ratio is calculated by dividing total capital, less adjustments or regulatory deductions, by risk-weighted assets.
Undrawn commitments	The amount of credit risk exposure resulting from loans that have not been advanced to a customer, but which a customer may be entitled to draw in the future.